INVENTUM ENGINEERING, P.C.

Remedial Investigation Work Plan

80 Lyndon Road

80 Lyndon Rd., LLC

Brownfield Cleanup Program Site

NYSDEC Site No. C828230
80 Lyndon Road

Fairport, NY 14450

January 9, 2024

Revised: September 19, 2024

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Engineering Certification

I, John. P. Black, certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Remedial Investigation Work Plan was prepared in accordance with all applicable statutes and regulators and in substation conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and Green Remediation (DER-31).

Respectfully Submitted,

Inventum Engineering, P.C.

Date: Sept. 19, 2024

John P. Black, P.E.

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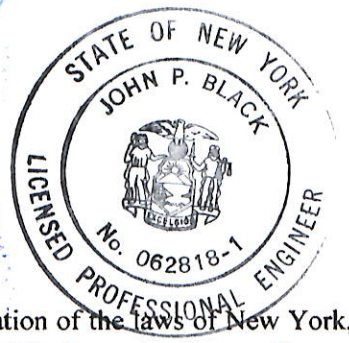

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1 Introduction

On behalf of 80 Lyndon Rd., LLC, Inventum Engineering, P.C. (Inventum) has prepared this Remedial Investigation Work Plan (RIWP) for the Brownfield Cleanup Program (BCP) Site located at 80 Lyndon Road (Site) in Fairport, New York within the Town of Perinton and Monroe County (NYSDEC#C828230). The Site consists of 23.468 (surveyed) acres and the Monroe County section/block/lot tax parcel number is 153.03-1-26. The location of the Site is shown on Figure 1. The BCP Site name is 80 Lyndon Road and the Site number is #C828230.

On June 15, 2016, 80 Lyndon Rd., LLC purchased the BCP Site from Thomas Creek Enterprise, Inc. 80 Lyndon Rd., LLC has no prior business relationship with Thomas Creek Enterprise, Inc or with the previous owners of the property. The BCP Site was conveyed from Craig Parsons to Thomas Creek Enterprise, Inc in 1975 and Mr. Alen Granger conveyed the BCP Site to Mr. Craig Parsons in 1967 (LCS, 2016).

The Site was used for a landfill from 1971 to 1975. "The landfill (formerly known as Granger Landfill) was reported to have begun operation in 1971 and was operated by Granger Landscape Service, Inc. Mr. Allen Granger applied and received a permit to operate as a sanitary landfill, reportedly allowing the disposal of boards, wooded debris, and rubble. The landfill operated until its closure in 1975. No final inspection for the site was completed." (NYSDEC InfoLocator). According to Mike Doser, Director of Planning and Rob Kozarits, Town Engineer – Town of Perinton there was no activity on the Site after the landfill closed in 1975 until 1988 when the first ice-skating facility was developed on the property.

Site operations have been limited to the operation of the ice-skating facility since 1988. 80 Lyndon Rd., LLC was not an owner or operator of the landfill and did not contribute waste to the landfill or on Site. At the time of purchase and not until the results of the 2020 NYSDEC Investigation (Parsons, 2020) and 2023 NYSDEC Investigation (Ramboll, 2023), 80 Lyndon Rd., LLC had no knowledge of any potential environmental conditions of concern on their property. The Phase I Environmental Site Assessment (ESA) conducted for their purchase indicated no significant environmental risk on the property. Although 80 Lyndon Rd., LLC has owned the property since 2016, the NYSDEC only initiated investigations under the inactive landfill program in 2020, and the constituents of concern were not regulated until 2022. The timing of the BCP Application is based on a change of regulation and 80 Lyndon Rd., LLC having a basis for understanding the potential risk until the recent NYSDEC investigation conducted under the inactive landfill program.

The RIWP was submitted to the New York State Department of Environmental Conservation (NYSDEC) along with the BCP Application with the intent to begin the investigation work upon completion of a BCP Agreement between the NYSDEC and 80 Lyndon Rd., LLC which was finalized and executed in August 2024. The remedial investigation will be conducted in accordance with an approved RIWP, the executed BCP Agreement, an approved Community Participation Plan (CPP), and DER-10 Technical Guidance for Site Investigation and Remediation (May 2010).

1.1 RI Program Objectives

The objectives of the RI program are to complete a comprehensive investigation of soil and groundwater conditions and provide the data required for an Alternatives Analysis (AA) for the Site, recommend the applicable Standards, Criteria, and Guidance (SCGs), Remedial Action Objectives (RAOs), Remedial Actions (RAs), and propose potential Interim Remedial Measures (IRMs) that will address environmental impacts that resulted from historical operations at the 80 Lyndon Rd., LLC BCP Site.

To achieve these goals, the following objectives will be within the focus of the program.

- Gather, compile, and evaluate existing historical investigation data;
- Complete the investigation of the 80 Lyndon Road Site, including surface and subsurface soil, sediments, and groundwater;
- Attempt to determine if there is an onsite source of the emerging contaminants or if they are a diverse and wide-spread constituent of concern;
- Conduct a qualitative exposure assessment using the collective data for the Site;
- Identify and propose any IRM activities that may be appropriate to complete in advance of the AA to protect the environment and ensure continued protection of public safety and health;
- Complete an AA and identify the appropriate remedy(ies) for NYSDEC consideration and public comment, and;
- Provide a draft schedule for implementation of the proposed remedial actions

1.2 RIWP Organization

This RIWP has been organized in the following sections:

Section 1 - Introduction
Section 2 - Site Description and History
Section 3 - Site Investigation History
Section 4 - Initial Conceptual Site Model and Data Gaps
Section 5 - Remedial Investigation Scope of Work
Section 6 - Investigation Derived Waste Management Plan
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Wetland Determination – NYSDEC
Preliminary Jurisdictional Determination – USACE

A Community Participation Plan (CPP) has been prepared and submitted under a separate cover to the NYSDEC after the BCP Application was accepted and after execution of a BCP Agreement. The CPP will provide information on how information generated on behalf of 80 Lyndon Rd., LLC and the NYSDEC will be made available and how the Owner of the Site and NYSDEC will inform and involve the public during the investigation and remediation of the BCP Site.

2 Site Description and History

2.1 Site Background

The Site was used for a landfill from 1971 to 1975. “The landfill (formerly known as Granger Landfill) was reported to have begun operation in 1971 and operated by Granger Landscape Service, Inc. Mr. Allen Granger applied and received a permit to operate as a sanitary landfill, reportedly allowing the disposal of boards, wooded debris, and rubble. The landfill operated until its closure in 1975. No final inspection for the Site was completed” (NYSDEC InfoLocator). The exact boundary of the former landfill is unknown; however, a previous investigation has estimated the landfill limits to encompass the majority of the BCP Site (Ramboll, 2023) and aerial photographic evidence is consistent with the interpretation. According to Mike Doser, Director of Planning and Rob Kozarits, Town Engineer – Town of Perinton there was no activity on the Site after the landfill closed in 1975 until 1988 when the first ice-skating facility was developed on the property.

While the landfill was reportedly “allowing the disposal of boards, wooded debris, and rubble”, recent investigations by the NYSDEC have encountered plastic materials, suspect printing shop wastes, suspect medical wastes, and several buried and partially buried 55-gallon drum carcasses and one intact drum. Surface inspections in the wooded areas identified metal and concrete debris that is no longer covered by the assumed 12-inch thick 1975 cover system. These conditions were not reported to the owners in the Phase I ESA that was conducted by LCS, Inc. in 2016 prior to 80 Lyndon Rd., LLC purchasing the property.

The investigations performed by Parsons in 2020 and Ramboll in 2023 under the direction of the NYSDEC raised the concern of 80 Lyndon Rd., LLC that the Phase I was note complete and that there was the possibility that other wastes were disposed with the “boards, wooded debris and rubble” and that these materials contain Polycyclic Aromatic Hydrocarbons (PAHs), Per- and poly-fluoroalkyl substances (PFAS), 1,4-dioxane, Volatile Organic Compounds (VOCs) Semi-volatile Organic Compounds (SVOCs), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) (encountered in a buried drum onsite), and metals.

2.1.1 Operational History

According to Mike Doser, Director of Planning and Rob Kozarits, Town Engineer – Town of Perinton there was no activity on the Site after the landfill closed in 1975 until 1988 when the first ice-skating facility was developed on the Site. The ice-skating facility is still fully operational today under the ownership of 80 Lyndon Rd., LLC.

80 Lyndon Rd., LLC applied to the NYS BCP as a volunteer, recognizing that 80 Lyndon Rd., LLC nor any members of the LLC have operated the Site as a landfill, operated any equipment that had possibly caused releases to the environment, never disposed any waste on or from the Site, and have never conducted any industrial operations on the property. The Site has been accepted into the program and has been assigned #C828230.

Since the transfer of ownership of the Site in 2016, 80 Lyndon Rd., LLC has taken significant actions to secure the Site and protect the environment:

- Site Security;
- Proper management of waste generated from the facility operations; and
- Protect the streams and wetlands present onsite.

2.1.2 Previous Investigations

Brief descriptions of previous investigations are provided for context, additional detail of the investigations can be found in Section 3.

Records indicate that a Phase II investigation was completed in 1990 and did not document the presence of hazardous waste on-site. The NYSDEC had determined that there are no known environmental problems associated with the disposal of hazardous waste at this Site (LCS, 2016).[1]

A Phase II field investigation was conducted and completed in 1991 by Ecology and Environment Engineering, P.C.[2] in conjunction with the adjacent Little League Landfill site (#828026A) located to the west across Lyndon Road. This investigation included an initial site reconnaissance, an electromagnetic terrain conductivity (EM31) survey, and a portable proton magnetometer survey to define the site geological conditions, locate and buried metals, and determine the presence of contaminant plumes. Four monitoring wells were installed in the overburden of the former Granger Landfill. Groundwater, surface water, and sediment samples were collected from the former Granger Landfill site. The 1991 results did not indicate that there was any significant contamination at the site (DECInfo Locator, 2023).

In August 2020, emerging contaminant sampling was completed by Parsons under the Inactive Landfill Initiative which included the collection of four groundwater samples. Four monitoring wells were installed in the eastern portion of the BCP Site. The depths of the monitoring wells range from 15-feet to 31-feet below the ground surface. The collected groundwater samples were analyzed for VOCs, polycyclic aromatic hydrocarbons, 1,4-dioxane, perfluorinated compounds, baseline leachate indicators, and modified baseline metal. Detected parameters of concern in the groundwater consist of PFOA, PFOS, and 1,4-dioxane (Parsons, 2020).

During the first quarter of 2023, Ramboll conducted an environmental site characterization of the current BCP Site (at the time of the investigation it was listed as a P-Site) under the direction of the NYSDEC. 80 Lyndon Rd., LLC only has access to the work plan with a sample location figure which was prepared by Ramboll in advance of the field investigation, the analytical laboratory reports for the samples collected during the site characterization investigation, and the field notes prepared by the Inventum field geologist observing the NYSDEC consultants field investigation. In summary, the project objective of Ramboll's work plan was to assess the potential for site-related constituents to migrate off-site above regulatory standards and guidance values. The site characterization was intended to evaluate the presence of VOCs, SVOCs, polychlorinated biphenyls (PCBs), 1,4-dioxane, per- and poly-fluoroalkyl substances (PFAS), inorganics, mercury, cyanide, and pesticides/herbicides in groundwater, surface water, soil, sediment, and fill material. The scheduled sampling consisted of:

- Soil sampling from three selected intervals from four soil boring locations
- Six test pit trenches with a projected depth of 4-feet to six feet and up to 8-feet in length.

[1] Lyndon Rd., LLC does not have a copy of the 1990 Phase II, and it is not included in the NYSDEC Info Locator Document resource. It is possible that LCS was referring to the 1991 Investigation that is described in the DECInfo Locator Site Record which was the 1991 investigation Ecology and Environment Engineering, P.C. that included 80 Lyndon Road Site and the Little League Landfill Site.

[2] Lyndon Rd., LLC does not have a copy of the 1991 Phase II,

- Install four monitoring wells to collect groundwater samples. The intent was to install the well screen in native material either vertically or horizontally outside the fill material to assess potential for migration of contaminants Surface water and sediment sampling of two samples collected from an upstream and downstream stream location.

Sampled constituents of SVOCs, PFAS, and metals were detected in exceedance of DER-10 Part 375, Soil Cleanup Objectives (SCOs).

During the test pitting, several red and blue plastic bags containing what appeared to be medical waste[3], were unearthed in two locations and observed during the geotechnical test pitting conducted by 80 Lyndon Rd., LLC. The location of the observed medical waste are shown on Figure 3. In a third location, a semi-intact 55-gallon steel drum was discovered. The drum contained unknown material, solids, and liquids, which were sampled and contained elevated levels of VOCs and SVOCs. These discoveries indicate the landfill was used for disposal of other waste besides the intended use of disposal of boards, wooded debris, and rubble. A sample from the drum contained 2-Butanone (MEK), Ethylbenxene, Toluene, m,p-Xylene, o-Xylene, Xylene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene above industrial SCOs and Benzo(b)fluoranthene, Chrysene, and Indeno(1,2,3-cd) pyrene at above restricted residential SCOs (Table 5, Table 5A, and Table 5B). Based on the information provided to Inventum, the materials did not exhibit the characteristics of toxicity, and therefore were not a hazardous waste.

2.2 Site Location and Description

The 80 Lyndon Road site address is 80 Lyndon Road, Fairport, New York and is located in a mixed-use area within the Town of Perinton in Monroe County, New York (Figure 1). The Monroe County Tax Parcel number is Section 154. 030; Block 1; Lot-26 and the total surveyed acreage is 23. 468. Of the total surveyed acreage of 23.468, 0.711 acres of the parcel is located southwest of the main parcel and on the west side of Lyndon Road (County Route 44). The site surveyed boundary is shown on Figure 2.

Surrounding the ice-skating facility are 14.42 acres of woodlands, Thomas Creek and 1.71 acres of maintained lawn. Thomas Creek runs parallel to the eastern border, wraps south of the Site and then runs parallel to the western border before flowing west. Runoff is controlled by an onsite stormwater retention basin (Note: soil/sediments removed from the building and parking lot stormwater retention basin were tested in 2022 and all compounds analyzed were below commercial Soil Cleanup Objectives (SCOs), but the full DER10 list was not included in the suite of testing.) (Paradigm, 2022)

Identification of wetlands was made along the eastern property boundary and along Thomas Creek. The field survey and report for the wetland and waterbodies delineation was completed by Earth Dimensions, Inc., and submitted to the United States Army Corps of Engineer (USACE) and the NYSDEC. 80 Lyndon Rd., LLC received a wetland determination from the NYSDEC on March 12, 2024 and on June 10, 2024 received the preliminary Jurisdictional Determination (JD) from the USACE. The Wetland and Waterbodies Delineation Report prepared by Earth Dimensions, Inc., the wetland determination from the NYSDEC, and the preliminary JD from the USACE is provided in Appendix D.

[3] A photograph log documenting the observed medical waste is provided in Appendix F and the locations of the observed medical waste is shown on Figure 3.

2.2.1 Land Use

The Site in a mixed-use area consisting of undeveloped land, residential, and recreational sport fields.

The BCP Site is bounded to the north by two residential tracts that are approximately 6 acres each. To the east, the Site borders an undeveloped tract that is zone residential and an undeveloped tract that is zone industrial. An additional undeveloped tract that is zone residential borders the Site to the South. Lyndon Road is along the west side of the Site and to the west of Lyndon Road is the inactive Little League Sanitary Landfill (Solid Waste ID: 28S12 and Inactive Hazardous Waste Number: 828026A, Class N) which is now operational sport fields. The Little League Sanitary Landfill reportedly began operations in 1971 and operated as a construction and demolition debris site from 1971 through 1976 and as a disposal site for municipal debris that was removed from the Emerson Street Dump in 1977 and 1978. A 1989 phase II investigation did not indicate that there was any significant contamination at the site, and The New York State Department of Conservation (NYSDEC) subsequently concluded that a significant threat does not exist. In addition, the site was archived with a no further action designation in 1992; such is presumably related to the above noted landfill operations. This site was also identified as a Superfund Enterprise Management System (SEMS) Archive Site, which is an updated database for Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) No Further Remedial Action Planned (NFRAP) sites. NYSDEC listed the site as a solid waste facility/landfill, classified as an inactive municipal solid waste landfill (LCS, 2016).

An aerial image of the surrounding properties can be viewed on Figure 1.

2.3 Topography

A topographic survey of the Site was conducted in October 2023 by Schultz Associates, Engineers and Land Surveyors, P.C., a New York State licensed surveyor (Figure 2). The natural elevation of the Site is generally flat at around 475- feet above mean sea level (ft. AMSL) in the center and along Lyndon Road. Thomas Creek flows south along the eastern border of the Site, wraps south of the Site, and then flows north along the west boundary before exiting the Site to the west. The topography of the Site has slopes to the east, southeast, and south toward Thomas Creek. The maximum relief is approximately 20-feet to 25-feet located in the northwest, western, and south section of the site towards Thomas Creek.

2.4 Geology

Monroe County lies within the Central Lowland physiographic province (Eastern Lake Section) of New York. The county is primarily mantled by glacial till, laminated lacustrine clay and silt deposits. The till consists of unconsolidated, poorly sorted clay, silt and/or sand deposits of relatively low permeability (loamy matrix). The stratigraphy of the site area can be characterized as shale bedrock (Vernon Shale) overlain by 25-feet to 50-feet of glacial deposits and lacustrine sediments. Bedrock was encountered at depths ranging from 28.2-feet to 50.5-feet below ground surface (BGS) according to drilling logs for the Granger Landfill site (Ramboll, 2023).

Review of the boring logs indicates that most of the waste material is unsaturated. The shallow groundwater flow was shown to be towards the southwest based on observations from the four monitoring wells installed by Parsons (Parsons, 2020). Groundwater generally occurs in the underlying overburden deposits. Water level elevations measured in November 1989 indicated groundwater flows towards Thomas Creek which would coincide with the observations made in 2020.

Clay soils with a visual field assessment of little silt and intermittent sand lenses were reported to be present below the landfill material at approximately 19-feet BGS at monitoring well location MW-01 which is

located in northwestern portion of the Site. At MW-02 located along the center portion of the western slope of the Site , the soil below the landfill material was described as a silt and fine sand, some clay and having gravel to cobble size rock observed at approximately 11-feet BGS. MW-03 is located in the southwestern portion of the Site, and the soil below the landfill material at approximately 19.6-feet BGS was described as fine sand, some silt and having a little to trace subrounded gravel. At MW-04 located in the middle portion of the Site, the soil below the landfill material at 29-feet BGS was described as a fine sand and silt and having a trace amount of gravel (Parson, 2020).

2.5 Surface Water Hydrology

Surface water from the improved parking lot and building flows to the southwest corner of the parking lot to a stormwater retention pond (expanded in 2023 are the direction of the Town of Perinton) and surface water that exits the retention pond flows to the west towards Thomas Creek. Surface water from outside the footprint of the building and parking lot flows away from the improved areas downslope towards Thomas Creek.

2.6 Wetlands and Waterways

On behalf of 80 Lyndon Rd., LLC, a preliminary JD of wetlands was made along the eastern property boundary and along Thomas Creek. Thomas Creek flows south along the eastern border of the site and then west along the southern boundary. The topography of the slight slopes to the east, southeast, and south toward Thomas Creek. The field survey and report for the wetland and waterbodies delineation was completed by Earth Dimensions, Inc., and submitted to the USACE and the NYSDEC. 80 Lyndon Rd., LLC received a wetland determination from the NYSDEC on March 12, 2024 and on June 10, 2024 received the preliminary JD from the USACE. The Wetland and Waterbodies Delineation Report prepared by Earth Dimensions, Inc., the wetland determination from the NYSDEC, and the preliminary JD from the USACE is provided in Appendix D.

2.7 Groundwater

Review of the boring logs indicates that most of the waste material is unsaturated. The shallow groundwater flow was shown to be towards the southwest based on observations from the four monitoring wells installed by Parsons in 2020 (Parsons, 2020). Groundwater generally occurs in the underlying overburden deposits. Water level elevations measured in November 1989 indicated groundwater flows towards Thomas Creek which would coincide with the observations made in 2020. Groundwater information is not available from the 2023 investigation.

There are no municipal groundwater wells located within a 1-mile radius of the Site. Two private wells are located within 0.25-mile radius from the center of the site, based on a 1935 Monroe County Survey. Both well locations were at a higher elevation and located in the presumed upgradient direction from the Site. One well was located approximately 315-feet north of the northwest corner of the Site and the second well was located approximately 360-feet northeast from the northeast corner of the Site. Three additional private wells were located to the northwest and northeast of the Site within a 0.25-mile and 0.5-mile radius. Seven additional private wells are located to the northwest and northeast of the site within a 0.5-mile and 1-mile radius, three of which were located in the presumed downgradient direction but were on the south side of the Erie Canal, a presumed hydraulic barrier. (EDR 2023).

The Field Activities Summary Report prepared by Parsons in November 2020 states that the area is served by public water and to the according the DEC website, there are no public drinking water wells within a mile of the Site (Parsons 2020). During the RI, Inventum will contact the municipality to confirm that

properties within 0.5-miles of the Site that had a groundwater well shown on their property in the EDR database are currently supplied by the municipal water system.

3 Site Investigation and Remediation History

A Phase II field investigation was conducted and completed in 1991 by Ecology and Environment Engineering, P.C. in conjunction with the adjacent Little League Landfill site (#828026A). This investigation included an initial site reconnaissance, an electromagnetic terrain conductivity (EM31) survey, and a portable proton magnetometer survey to define the site geological conditions, locate and buried metals, and determine the presence of contaminant plumes. Four monitoring wells were installed in the overburden of the former Granger Landfill which is the BCP Site. Groundwater, surface water, and sediment samples were collected from the former Granger Landfill site. The results did not indicate that there was any significant contamination at the site.[4] The more recent investigation in 2020 and 2023 which were conducted under the direction the NYSDEC were focused on investigating potential impacts to drinking water sources and other receptors (Parsons, 2020) and assess the potential for site-related constituents to migrate off-site above regulatory standards and guidance values (Ramboll, 2023).

3.1 Inactive Landfill Initiative – Field Activities Summary Report, November 2020

In August 2020, emerging contaminant sampling was completed by Parsons (Parsons, 2020) under the Inactive Landfill Initiative which included the collection of four groundwater samples. Four monitoring wells were installed in the eastern portion of the BCP Site. The depths of the monitoring wells range from 15-feet to 31-feet below the ground surface. The collected groundwater samples were analyzed for VOCs, polycyclic aromatic hydrocarbons, 1,4-dioxane, perfluorinated compounds, baseline leachate indicators, and modified baseline metals.

Groundwater results are as follows: PFOA (740 to 8,100 nanograms per liter [ng/L]), PFOS (62 to 290 ng/L), 1,4-dioxane (2 to 43 parts per billion [ppb]), Chlorobenzene at 16 ppb, and Ethylbenzene 6 ppb, shown in Table 4 and 4A and on Figure 10.

Soil samples were not collected for laboratory analysis during the August 2020 investigation.

3.2 Site Characterization – 2023

In 2023, Ramboll[5] conducted an environmental site characterization of the BCP Site under the direction of the NYSDEC. Lyndon Rd. LLC only has access to the work plan that was prepared by Ramboll in advance of the field investigation and the analytical laboratory reports for the samples collected during the site characterization investigation (Ramboll, 2023). In summary, the project objective of Ramboll's work plan was to assess the potential for site-related constituents to migrate off-site above regulatory standards and guidance values. The site characterization evaluated the presence of VOCs, SVOCs, PCBs, 1,4-dioxane, per- and poly-fluoroalkyl substances (PFAS), inorganics, mercury, cyanide, and pesticides/herbicides in groundwater, surface water, soil, sediment, and fill material. The scheduled sampling consisted of:

- Soil sampling from three selected intervals from four soil boring locations
- Six test pit trenches with a projected depth of 4-feet to six feet and up to 8-feet in length.
- Install four monitoring wells to collect groundwater samples. The intent was to install the well screen in native material either vertically or horizontally outside the fill material to assess potential for migration of contaminants

[4] The 1991 Phase II investigation is not available to 80 Lyndon Rd., LLC.
[5] 80 Lyndon Rd., LLC does not have copy a Site Characterization Report. Only a work plan, laboratory reports and sample location figure were made available to 80 Lyndon Rd., LLC.

- Surface water and sediment sampling of two samples collected from an upstream and downstream stream location

For the soil samples, SVOC were detected in upper 1-foot soils at below restricted residential (DER-10 Part 375, Soil Cleanup Objectives [SCO]) standards at three soil boring /monitoring well locations around the perimeter of the Site. Lead was the only metal detected above restricted residential levels along the eastern portion of the Site near Lyndon Road. The soil data is presented on Table 1 and 1A, and shown on Figures 8 and 9.

PFOA and PFOS were detected at multiple intervals from five monitoring well borings and at three test pit locations across the Site. PFOA and PFAS were detected above restricted residential levels at one test pit location in the northeast portion of the Site in the upper surface soil sample and PFOS was detected over restricted residential levels at 6-feet to 8-feet below the ground surface in the southeast portion of the site a monitoring well boring. The SVOCs Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene and Indeno(1,2,3-cd)pyrene were also detected in the upper 1-foot at above Commercial and Industrial SCOs.

During the test pitting, buried blue and red plastic bags of presumed medical waste and a semi-intact 55-gallon drum of unknown material, which was sampled and contained elevated levels of VOCs and SVOCs was observed which indicates the landfill was used for disposal of other waste besides the intended use of disposal of boards, wooded debris, and rubble. A sample from the drum contained 2-Butanone (MEK), Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene above industrial SCOs and Benzo(b)fluoranthene, Chrysene, and Indeno(1,2,3-cd)pyrene at above restricted residential SCOs (Table 5A and Table 5B). The location of the discovered drum is shown on Figure 8.

Groundwater – PFOS and PFOA were detected at concentrations above their applicable Class GA standards in four of the seven onsite monitoring wells. The four wells with the exceedance are located along the eastern and southern portion of the site. PFOS exceedances ranged from 3.8 to 847 ng/L and PFOA ranged from 24 to 5,470 ng/L (Table 4 and 4A)

Surface Water – Five surface water samples were collected onsite from Thomas Creek. One surface water sample from the southwest portion of the Site had an exceedance of PFOA above the Ambient Water Quality Guidance Values, April 2023, (Human Health Criteria for Surface Water and Groundwater) at 6.8 ng/L (Table 3 and 3A).

4 Initial Conceptual Site Model and Data Gaps

4.1 Initial CSM

An initial Conceptual Site Model (CSM) for the Site was developed incorporating limited available data of previous investigations. The initial CSM describes the conditions anticipated at the BCP Site and forms the basis of the investigations required to verify or refine the model. The CSM establishes a baseline against which the RI data will be compared:

- Historical landfill operations have impacted environmental media on the Site.
- Groundwater is nominally impacted on the Site from historical landfill operations by previous property owners.
- Emerging contaminants (PFAS and 1,4-dioxane) have recently been detected on the property by the NYSDEC. The source of these compounds, and character of the source (concentrated or distributed), is unknown.
- Polychlorinated biphenyl (PCBs), Pesticides, Herbicides, are not Chemicals of Concern on the proposed BCP Site based on available investigation data
- Groundwater elevation data has not been made available and the gradient on the Site is unknown.
- Potential medical waste[6] consisting of medical tubing, bedding, baby bottles, IV bags, bandages, and stained bedding and gauze have been identified buried on the property and the source and potential influence of those materials is unknown. No potential medical waste is exposed at the ground surface.
- Evidence of buried drums have been identified along the south to southeastern portion of the former landfill and the potential influence of buried drums within the former landfill is unknown.

4.2 Data Gaps

The current data and CSM was used to identify specific data gaps where further investigation is proposed to either complete a comprehensive delineation and, as necessary, fine-tune the CSM as an aid to development of IRMs or potential remedial alternatives in the AA. The RI scope of work (Section 5) is being proposed to comply with DER-10 and address the identified data gaps. The following data gaps were identified as shown in *italics* beneath each component of the CSM:

- Historical operations have impacted environmental media on the Site in sections of each AOI;
    - *Additional delineation of the nature and extent of contamination on the Site is proposed in this RIWP.*
    - *Additional test pitting is required to understand the waste materials disposed of in the landfill and the potential environmental risk of these materials.*
    - *Collect surface water samples to comprehensively assess the surface water with Thomas Creek to evaluate potential of landfill seepage.*
- Groundwater is nominally impacted on the Site from historical landfill operations by previous property owners.
    - *Additional groundwater monitoring is required to document baseline conditions identified in the scoping investigations across seasonal variations in groundwater levels and establish long-term monitoring requirements and trends.*

[6] A photograph log showing the described medical waste is provided in Appendix F and the location of the observed medical waste is shown on Figure 3.

- *Additional monitoring wells are necessary to further define the extent of SVOCs, VOCs, and emerging condiments in groundwater on the BCP Site.*

- Emerging contaminants (PFAS, 1,4-dioxane) have recently been detected on the property by the NYSDEC. The source of these compounds, and character of the source (concentrated or distributed), is unknown.
  - *Additional groundwater monitoring is required to document baseline conditions identified in the scoping investigations across seasonal variations in groundwater levels and establish long-term monitoring requirements and trends.*
  - *Additional monitoring wells are necessary to further define the source and extent of emerging condiments in groundwater on the BCP Site.*
  - *Additional test pits are required to determine if there are source materials of the emerging contaminants on the Site.*
- Polychlorinated biphenyl (PCBs), Pesticides, Herbicides, are not Chemicals of Concern on the BCP Site based on available investigation data.
  - *Additional sampling in groundwater is necessary to confirm this assessment.*
- Groundwater elevation data has not been made available and the gradient on the BCP Site is unknown.
  - *The number of groundwater bearing zones below the Site are unknown.*
  - *The potential migration of groundwater from or to the Site is unknown.*
  - *Multiple rounds of ground and surface water elevation data are required to define the groundwater gradients on the Site and the potential for flow to or from Thomas Creek.*
  - *The influence of the beaver dam on the property must be evaluated.*
- Potential medical wastes have been identified on the property and the source and potential influence of those materials are unknown.
  - *The distribution of potential medical wastes on the Site must be understood.*
  - *The potential partitioning on constituents of potential concern from those wastes must be determined.*
- Evidence of buried drums has been identified along the south to southeastern portion of the former landfill and the potential influence of buried drums is unknown.
  - *The distribution of buried drums on the Site is unknown.*
  - *Additional test pits are required to determine the presence and if there is potentially source material of concern within buried drums.*

- Soil vapor testing has not been conducted on the BCP Site. The existing ice center development was built starting in 1988 and has operated continuously since that time. The state of understanding until 2021 was that this had been a construction and demolition (C&D) landfill and that soil vapor was not a potential concern.
  - *The potential for soil vapor to be impacted by the landfill or regional groundwater conditions is unknown.*

5 Remedial Investigation Scope of Work

The RI scope of work was designed to eliminate the data gaps identified in Section 4.2. All investigation work will be conducted in accordance with the following supplemental documents:

- Community Participation Plan (CPP) – the CPP outlines the steps that will be taken to convey information to the public.
- Quality Assurance Project Plan (QAPP) – Appendix A – defines the data quality objectives, sampling and analytical method requirements, QA/QC sample collection frequency, quality control requirements, data management, and data review, validation, and verification requirements to be followed during completion of the RI.
- Health and Safety Plan (HASP) – Appendix B – defines the appropriate health and safety requirements and designated protocols to be followed during completion of the RI.
- Community Air Monitoring Plan (CAMP) – Appendix C – defines the appropriate air monitoring requirements and designated protocols to be followed to monitor the air quality emanating from work areas (personal air monitoring is covered by the HASP) during completion of the RI.

Figure 3 shows the proposed sampling program across the Site and Figures 4 through 7 presents the test pit locations, soil boring and monitoring well locations, sediment and surface water samples and shallow surface soil samples.

5.1 Soils

For the purposes of the RIWP, the unconsolidated materials at the property are considered soils. All landfill materials have been in the ground for nearly 50 years and primarily resemble soil rather than solid wastes.

A geotechnical investigation consisting of 12 soil borings and eight test pit locations will be completed on the Site east side of the ice-skating facility prior to the BCP Remedial Investigation. The geotechnical locations are shown on Figure 3.

5.1.1 Test Pits

If visually impacted material is observed, soil samples will be collected from a total of 17 test pit locations across the Site including the portion of the Site located west of Lyndon Road. One set of samples will be collected for VOCs, SVOCs, TAL Metals, PCBS, Pesticides/Herbicides, PFAS and 1,4-dioxane of visually impacted material. Additional notes are provided on Table 7 to describe the rational for each proposed location.

Test pits will be advanced using conventional excavation equipment. The proposed target depths and minimum lengths are provided in Table 7 and locations are shown on Figure 4. The depths are based on the estimated depth to the top of native soil and assuming the depth to native is less, at around 10-feet below the ground surface, on the slopes. The max test pit excavation depth will likely be limited to around 15-feet below the ground surface due to the operational depth of a typical excavator. For locations not on the slopes the estimated excavation depth is 15-feet below the ground surface. Where possible, all test pits will be advanced to the top of native soil.

Careful attention will be followed for no more than two vertical feet of material is removed with each scoop of the excavator. Observation of excavated soils and screening with a 10.6eV PID will be made directly from bucket load samples. After screening, soils will be temporarily stockpiled adjacent to the excavation and at a minimum of 2-feet from the edge. Samples that are submitted for analytical characterization will

be collected directly from the sidewalls of the test pits that are less than 3-feet deep if stable or from the bucket of the excavator using a dedicated disposable stainless-steel spoon. Under no circumstances will anyone be allowed to enter the test pits that are greater than 3-feet deep or that have flowing water.

Photographs of each test pit will be taken. Photographs of any significant features exposed by the test pit (ex. buried debris, drums, medical waste, etc.) will be collected after the final depth is reached. All pertinent information will be recorded in the field notebook or on test pit logs.

5.1.2 Soil Borings

Ten soil borings are scheduled within the areas of potential future development at the Site. The intent of the soil borings is to evaluate depth of fill, type of fill, depth to native material, and depth to the top of bedrock. The borings are summarized on Table 8 and the locations are show on Figure 5.

Borings will be advanced at each proposed location using hollow-stem auger (HSA) or roller bit downhole tools. All downhole equipment will be decontaminated before use on the property and between borings. Unconsolidated material samples will be continuously collected with a split-barrel sampler driven through the augers for observation, lithological characterization, and screening with a PID equipped with a 10.6eV lamp in a continuous interval over the total depth of the deepest boring in each cluster. Soil samples for laboratory analysis will only be collected if visually impacted or gross contaminated material is observed or selected for analysis based on elevated PID readings.

All pertinent information will be recorded in the field notebook or on test pit logs.

5.1.3 Soil Sampling at Monitoring Well Locations

A total of 17 new monitoring wells will be installed at ten unique well locations or clusters. The monitoring wells are categorized as:

- Shallow Depth – “A” Monitoring Wells
  - Four (4) shallow depth monitoring well is proposed to investigate the soil within 15-feet BGS.
- Medium Depth - “B” Monitoring Wells
  - Seven (7) medium depth monitoring wells are proposed to investigate the upper portion of the clay unit at depths less than 25-feet BGS.
- Deep Depth – “D” Monitoring Well
  - Six (6) deep depth monitoring wells are proposed to measure the thickness of the native soil below the fill, to allow lithologic mapping of the native soil, and to investigate the upper bedrock.

The monitoring well locations are shown in Figure 5 and the sampling plan for each monitoring well boring is provided in Table 6. At minimum, one set of samples will be collected at each well cluster and analyzed for VOCs, SVOCs, TAL Metals, PCBS, Pesticides/Herbicides, PFAS and 1,4-dioxane. Monitoring well location cluster (MW-BCP-08A, MW-BCP-08C, and MW-BCP-08D) is a well locations to evaluate the center portion of the landfill. Monitoring wells MW-BCP-01B and D, MW-BCP-02B and D, MW-BCP-04B and D, MW-BCP-05B, and MW-BCP-06B and D are additional “B” and “D” to pair with existing shallow wells that have been installed by others. Monitoring well location MW-BCP-10A will assess the soil on the portion of the Site that is located on the west side of Lyndon Road and clusters MW-BCP-07A and D and MW-BCP-09A and B will be installed to evaluate the north and northwest portion of the Site and establish upgradient to cross gradient monitoring wells.

Borings will be advanced at each proposed location using hollow-stem auger (HSA) or roller bit downhole tools. All downhole equipment will be decontaminated before use on the property and between borings. Unconsolidated material samples will be continuously collected with a split-barrel sampler driven through the augers for observation, lithological characterization, and screening with a PID equipped with a 10.6eV lamp in a continuous interval over the total depth of the deepest boring in each cluster. Soil samples for laboratory analysis will only be collected if visually impacted or gross contaminated material is observed or selected for analysis based on elevated PID readings.

All pertinent information will be recorded in the field notebook or on a log.

5.1.4 Surface Soil Sampling

Along Lyndon Road in the western portion of the Site and on the portion of the Site located west of Lyndon Road, surficial soil samples will be collected six locations within maintained grassed areas to evaluate if the material meets commercial SCOs and to evaluate the potential risk for human exposure. At each location a VOCs grab sample will be collected and analyzed from immediately below the topsoil to 6-inches BGS. Below the topsoil to 2-inches BGS and at 2-inches to 24-inches the material will be collected and analyzed for SVOCs, Metals, PCBs, Pesticides/Herbicides, PFAS, and 1,4-dioxane. The surface soil sample locations are shown on Figure 7.

All sampling equipment will be decontaminated before use on the Site, between locations and sample intervals. Observation, lithological characterization, and screening with a PID equipped with a 10.6eV lamp will be completed for each sample.

5.2 Groundwater

There are a minimum of two groundwater bearing zones on the property. The A and B wells are intended to differentiate if there are two water bearing zones above bedrock.

5.2.1 Monitoring Well Installation

Seven existing monitoring shallow or ‘A” wells (LR-MW-01 to LR-MW-07) which have been previously installed under the direction of the NYSDEC (Parson, 2020 and Ramboll, 2023). The locations of the existing wells are shown in Figure 2 and analytical sample results are summarized in Table 4 and Table 4A. Additionally, the sample results that exceed the Class GA Ambient Water Quality Guidance(Class GA) values are shown in Figure 10. Class GA exceedances have been observed for PFOS, PFOA, 1,4-dioxane, Ethylbenzene, and Chlorobenzene.

A total of 17 new monitoring wells will be installed at ten unique well locations or clusters. The monitoring wells are categorized as:

- Shallow Depth – “A” Monitoring Wells
  - Four (4) shallow depth monitoring well is proposed to investigate the soil within 15-feet BGS.
- Medium Depth - “B” Monitoring Wells
  - Seven (7) medium depth monitoring wells are proposed to investigate the upper portion of the clay unit at depths less than 25-feet BGS.
- Deep Depth – “D” Monitoring Well
  - Six (6) deep depth monitoring wells are proposed to measure the thickness of the native soil below the fill, to allow lithologic mapping of the native soil, and to investigate the upper bedrock.

The monitoring well locations are shown in Figure 5 and the sampling plan for each install monitoring well is provided in Table 6. Monitoring well location cluster MW-BCP-08A, MW-BCP-08C, and MW-BCP-08D is a new well location to evaluate the center portion of the landfill. Monitoring wells MW-BCP-01B and D, MW-BCP-02B and D, MW-BCP-04B and D, MW-BCP-05B, and MW-BCP-06B and D are additional "B" and "D" monitoring wells to pair with existing shallow wells that have been installed by others. Monitoring well location MW-BCP-10A will assess the soil on the portion of the Site that is located on the west side of Lyndon Road. Clusters MW-BCP-07A and D and MW-BCP-09A and B will be installed to assess the north and northwest portion of the Site and establish upgradient to cross gradient monitoring wells.

Monitoring wells are proposed to target specific monitoring intervals and will be constructed in accordance with the guidance below. Monitoring wells in each cluster will be offset from other wells in the same cluster by a minimum of 5-feet. All wells will be completed within an above ground or flush mount surface steel casing. The locations and elevation of the measuring point of each well will be measured by a New York State licensed surveyor. The well data will be added to the Site survey and topographic base map.

Borings will be advanced at each proposed location using hollow-stem auger (HSA) or roller bit downhole tools. All downhole equipment will be decontaminated before use on the property and between borings. Unconsolidated material samples will be continuously collected with a split-barrel sampler driven through the augers for observation, lithological characterization, and screening with a PID equipped with a 10.6eV lamp in a continuous interval over the total depth of the deepest boring in each cluster. Soil samples for laboratory analysis will be selected based on the observations and PID readings as described in section 5.1.3 Soil Sampling at Monitoring Well Locations.

All wells will be developed a minimum of two weeks prior to collection of water samples. The depth to water in the wells will be manually measured using an oil/water interface probe prior to development. Wells will be developed by removing three well volumes of water, purging the wells until dry, or purging and surging the wells. Water quality measurements for pH, temperature, conductivity, dissolved oxygen, oxidative-reductive potential (ORP), and turbidity will be recorded periodically during the development process.

5.2.2 Shallow Depth – "A" Monitoring Wells

Four (4) shallow depth monitoring wells (MW-BCP-07A, MW-BCP-08A, MW-BCP-09A, and MW-BCP-08A) are proposed. Shallow wells will be installed to monitor groundwater flow and quality in the fill layer assumed to be present across most of the Site. These wells will be screened within the fill above the clay. If the thickness of the fill is less than 3-feet, the shallow depth wells will not be constructed, but the depth to water will be noted.

Shallow wells will be completed with a 2-inch diameter Schedule 40 polyvinyl chloride (PVC) well casing and 2 to 3-feet of 0.010-inch slotted screen depending on the depth of the boring (estimated at 5-feet to 15-feet on average across the Site). A sand filter pack will be placed from the bottom of the screened interval to a minimum of 1 foot above the top of the screen. The remaining annular space will be completed with a bentonite seal to within 6 inches of the ground surface. The well locations will be completed with a concrete collar to protect the casings.

5.2.3 Medium Depth - "B" Monitoring Wells

Seven (7) medium depth monitoring wells (MW-BCP-01B, MW-BCP-02B, MW-BCP-04B, MW-BCP-05B, MW-BCP-06B, MW-BCP-07B, and MW-BCP-08B) are proposed to investigate the native soil beneath the upper fill, at estimated depths of less than 25-feet BGS.

Medium depth wells will be completed with a 2-inch diameter Schedule 40 PVC well casing and 10 feet of 0.010-inch slotted screen. A sand filter pack will be placed 6-inches below the screen, across the entire screened interval to a minimum of 2-feet above the top of the screen. A 2-foot bentonite seal will be placed on top of the filter pack and the remaining annular space will be completed with a bentonite-cement grout (Portland Type I cement with 3 to 5 percent bentonite). The well seal construction plan may be adjusted as necessary to ensure that a minimum of 2-feet of bentonite-cement grout is emplaced below the fill transition.

The steel casing will be set in place with placement of grout into the annular space between the casing and borehole by positive displacement using a tremie pipe. A portion of the grout mixture will be poured into the inside of the casing to create a plug at the base of the casing and allowed to set for a minimum of 24-hours. The borings will then be advanced through the plug to the total depth of the boring. Monitoring wells will be installed following the sample procedures outlined in this section.

5.2.4 Deep Depth – "D" Monitoring Well

Six (6) deep depth monitoring wells (MW-BCP-01D, MW-BCP-02D, MW-BCP-04D, MW-BCP-06D, MW-BCP-07D, and MW-BCP-08D) are proposed across the to measure the thickness of the native soil beneath the fill, to allow lithologic mapping of the clay, and to investigate the upper bedrock. The rock core will be advanced a minimum of 5 feet below the soil/rock interface. The rock core will be advanced as much as ten feet into the rock if the recovered core suggests there may be little to no groundwater flow. The rock core will be logged based on lithology, color, and fracture condition. The rock quality will be logged in accordance with ASTM Standard Test Method D6032/D6032M-17 "Standard Test Method for Determining Rock Quality Designation (RQD) of Rock Core". The estimated total depth of the boring is approximately 35 feet.

The deep well will be triple cased to limit the potential for developing a preferential migration pathway. Borings for this well will progress until the top of clay is encountered and then advanced 1 foot into the clay, enabling the placement of, at minimum, an 8-inch diameter steel casing to be sealed into the top of the clay unit.

The steel casing will be set in place with placement of grout into the annular space between the casing and borehole by positive displacement using a tremie pipe. A portion of the grout mixture will be poured into the inside of the casing to create a plug at the base of the casing and allowed to set for a minimum of 24-hours. The boring will then be progressed through the plug until the top of bedrock is encountered. After bedrock is encountered, a core barrel will be used to drill approximately 1 to 2 feet into the bedrock, enabling placement of a 4-inch diameter steel casing to be sealed into the top of the bedrock unit.

The bedrock casing will be set in place with the placement of grout into the annular space between the casing and borehole by positive displacement using a tremie pipe. A portion of the grout mixture will be poured into the casing to create a plug at the base of the casing and allowed to set for a minimum of 24-hours. After the casing has set, the bedrock will be cored a minimum of 5-feet past the bottom of the casing and the well be completed as an open borehole.

5.2.5 Groundwater Sampling

Liquid level measurements will be collected from all onsite existing and installed monitoring wells as described in Section 5.2, prior to the collection of any analytical samples. The depth to water and overall total depth of the wells will be collected using an oil/water interface probe and recorded in the field notebook. The total depth of the well will be verified to ensure it has not accumulated sediment.

A minimum of three well volumes will be purged from the 80 Lyndon Road monitoring wells using a bailer or peristaltic pump or the well will be purged dry prior to collecting groundwater samples from the existing, and the newly installed A and B wells. Field measurements of pH, temperature, conductivity, turbidity, dissolved oxygen, and oxygen reduction potential (ORP) will be recorded at three intervals during the purging process during standard purge. Groundwater samples will be collected with a bailer or with dedicated high-density polyethylene (HDPE) tubing and a peristaltic pump.

The D wells will be sampled by the low-flow (minimal drawdown) sample method.

The selected groundwater analytical sampling parameters are outlined in Table 6 for new wells installed under the BCP program and analytical sampling parameters are outlined in Table 10 for the existing monitoring wells (LR-MW-01 to LR-MW-07).

5.3 Sediment and Surface Water Sampling

PFOS was detected in the surface water in exceedance of the Class GA standards and PFOS and PFOA were detected in the sediment over the NY Part 375 Soil Cleanup Objectives for Protection of Groundwater standard from Thomas Creek in the southwest portion of Site as shown on Figure 12 and 13 (Ramboll, 2023).

Thomas Creek flows from the north along the eastern limits of the Site, wraps to the south of the Site, then travels to north as the creek exits the Site to the west. To evaluate the potential of seepage and migration of constituents from the landfill to Thomas Creek, six sample locations have been selected along Thomas Creek (Figure 6). At each selected location, a grab surface water sample will be collected for VOCs, SVOCs, Metals, Pesticides/Herbicide, PFAS, and 1,4-dioxane. Sample collection of surface water will be downstream working upstream with an effort made to not disturb the sediment. Sediment samples will be collected of the sediment from the edge of the stream that is closest to the Site. Sediment samples will also be collected from downstream working upstream. Each collected sediment sample will be analyzed for VOCs, SVOCs, Metals, Pesticides/Herbicide, PFAS, and 1,4-dioxane.

An effort will be made to collect the samples on a day of typical stream flow and not during a storm event. As described in Table 9, the selected sample locations are indented to assess the following:

- Upstream and upgradient to the Site
- Downgradient of the landfill
- Downgradient of the eastern seepage from the landfill
- Downgradient of southern seepage from the landfill
- Downgradient of western seepage from the landfill
- Downstream and downgradient to the Site

5.4 Soil Vapor

Sub-slab and indoor air sampling is proposed in the occupied building along with soil gas sampling around the site and on the perimeter at each well cluster.

Inventum will notify the NYSDEC and NYS Department of Health (NYSDOH) a minimum of 15-days prior to installation of the soil vapor probes and collection of the first samples, and if requested, can meet with the NYSDEC/NYSDOH representatives on the BCP Site to coordinate the final location of the proposed samples.

Upon completion of construction of the future ice rink, and during the first subsequent heating season[7], the same procedures will be followed to assess the soil vapor beneath the slab and the indoor air of the existing and proposed ice center buildings.

Initial design of the new building includes a sub-slab vapor extraction collection media, piping, and vapor barrier. If there are detections exceeding the NYSDOH matrices requiring mitigation, the vapor extraction system can be energized within one week of receiving the data, only the inline fans need to be installed and connected to an electrical supply.

5.4.1 Sub-slab Vapor and Indoor Air

Collocated sub-slab vapor and indoor air samples will be collected at four (4) locations within each structure (Figure 3 and summarized in Table 11). Sub-slab and indoor air samples will be collected in general accordance with the applicable NYSDOH guidance document (NYSDOH 2006) including tracer gas sampling or a water dam to verify the integrity of the soil vapor probe seal. A pre-sampling product inventory inspection will be completed and documented.

One (1) 8-hour sample will be collected at each sub-slab and indoor air location in a laboratory certified clean Summa® canister and submitted to Alpha Analytical Laboratories of Buffalo, New York for VOC analysis using EPA Method TO-15/TO-15-SIM. Matric A and C compounds as listed within the NYSDOH guidance document[8] will utilize a minimum reporting limit of 0.20 micrograms per cubic meter (ug/m3). Matrix B compounds will utilize a reporting limit of 1.0 ug/m3. The inlet of the indoor air sample collection canisters will be elevated approximately 3-feet above the floor surface during collection.

Sub-slab samples will be collected from temporary sub-slab vapor probes installed at each location. The probes will be constructed with 0.125-inch or 0.25-inch Teflon lined tubing extended no more than 2-inches into the sub-slab material. The core through the floor will be sealed with a non-VOC emitting surface sealant (ex. modeling clay). Alternatively, Inventum may utilize a Vapor Pin® sampling device for collection of sub-slab samples. Standard Operating Procedures for utilization of the Vapor Pin system will be adhered to during installation. After installation, one to three volumes (probe and tube) will be purged prior to collecting the sub-slab samples.

[7] As the facilities are primarily ice skating facilities, heating only applies to limited office, training and commercial spaces, the majority of the buildings are not heated.

[8] The most recent Soil Vapor/Indoor Air matrices at available at the time of sample collection will be utilized.

5.4.2 Soil Gas

During the RI outside the structure's footprints, Soil Gas probes will be installed in general accordance with the applicable NYSDOH guidance document (NYSDOH 2006). Soil Gas samples will collected at nine locations through the site in the vicinity of each well cluster location to allow a correlation of soil gas, soil, and groundwater concentrations. This data correlation will allow assessment of the need for and the locations of additional soil gas sampling during a subsequent phase of the RI.

At each soil gas sample location, a stainless steel screen will be installed in the ground at depths between 5-10 feet BGSs within the onsite fill. The boring will be cleared by direct push drilling or hollow stem auger drill utilizing decontaminated 4.25 augers. Screen implants will be fitted with 0.125-inch or 0.25-inch Teflon lined tubing and backfilled with 2 feet of sand to create a sampling zone. The boring for the probes will be sealed above the sampling zone with a minimum of 3 feet of bentonite. The remainder of the boring will be backfilled with cutting material from the boring.

One (1) 8-hour sample will be collected at each well cluster location in a laboratory certified clean Summa® canister and submitted to Alpha Analytical Laboratories of Buffalo, New York for VOC analysis using EPA Method TO-15/TO-15-SIM. Matrix A and C compounds as listed within the NYSDOH guidance document[9] will utilize a minimum reporting limit of 0.20 micrograms per cubic meter (ug/m3). Matrix B compounds will utilize a reporting limit of 1.0 ug/m3.

5.5 Survey

Monitoring wells will be surveyed by a surveyor licensed in the state of New York consistent with standard technical practices. Horizontal locations will reference the North American Datum of 1983 and the New York State Plane system and be accurate to within ±0.1 foot. Vertical elevations from the ground surface and top of casing (TOC) will be referenced to the North American Vertical Datum of 1988 and reported in feet above mean sea level. Vertical measurements will be accurate to within ±0.01 foot.

Test pit, soil boring, surface soil, and stream and sediment locations will also be surveyed.

5.6 Community Air Monitoring Program

The air monitoring program during the RI will be conducted in accordance with the Community Air Monitoring Plan (CAMP) provided in Appendix C. Should the action level of 150 µg/m^3 above the upwind monitoring concentration be exceeded after corrective actions are taken, work must stop and NYSDEC and NYSDOH must be notified within 24-hours by either phone or email. The notification shall include a description of the control measures implemented to prevent further exceedances.

In addition to the requirements of the CAMP, perimeter air monitoring during completion of RI field activities will be conducted at two (2) downwind locations on the perimeter of the Site. The location of the perimeter air monitors will be adjusted as necessary as the work area shifts and/or with noticeably sustained shifts in prevalent wind directions. Ribbon will be installed near the work area as a guide to determine prevalent wind direction. The prevalent wind direction and the location of the air monitors will be documented daily in the field notebook.

CAMP data summaries will be provided to the Site's NYDEC and NYDOH project managers on a weekly basis while active intrusive earthwork and soil investigations are occurring on the Site.

[9] The most recent Soil Vapor/Indoor Air matrices at available at the time of sample collection will be utilized.

5.7 Field Modification Notifications

The NYSDEC BCP Project Manager (PM), or their designated representative, will be notified via electronic mail and telephone if the following conditions occur:

- Field activities are delayed and/or rescheduled due to unsafe or unsuitable weather conditions and/or equipment malfunctions.
- Proposed test pit locations must be relocated more than 25-feet from the location shown in the RIWP due to surface or subsurface conditions preventing completion of the test pit to the desired depth or unforeseen hazardous overhead conditions.
- Proposed monitoring well clusters must be relocated more than 25-feet from the location shown in the RIWP due to surface, subsurface or overhead conditions preventing completion of the boring and installation of a representative well.

5.8 Wetland Assessment

The field survey and report for the wetland and waterbodies delineation has been completed by Earth Dimensions, Inc., in accordance with the 1987 Wetland delineation manual, the appropriate USACoE Northcentral and Northeast regional supplement, and New York State Freshwater Wetland guidelines. Wetlands were identified along Thomas Creek. Thomas Creek flows south along the eastern border of the site and then west along the southern boundary. The topography of the slight slopes to the east, southeast, and south toward Thomas Creek. The field survey and report for the wetland and waterbodies delineation was submitted to the USACE and the NYSDEC. 80 Lyndon Rd., LLC received a wetland determination from the NYSDEC on March 12, 2024 and on June 10, 2024 received the preliminary JD from the USACE. The Wetland and Waterbodies Delineation Report prepared by Earth Dimensions, Inc., the wetland determination from the NYSDEC, and the preliminary JD from the USACE is provided in Appendix D.

A Wetland Delineation and Stream Identification Report will be included as an appendix to the Remedial Investigation Report (RIR) with a summary of findings incorporated into the RI assessment.

6 Investigation Derived Waste Management Plan

The following Investigation Derived Waste (IDW) management procedures will be followed during completion of the RI.

6.1 Soils

Soils excavated from test pits that do not exhibit any gross contamination will be placed back in the cavity after completion of the test pit. The fill will be segregated from any undisturbed native soils excavated from a test pit and the clay will be replaced in the bottom of the cavity. Gross contamination is defined for these purposes as soils exhibiting the presence of petroleum, fuel oils, waste oils or similar.

Soils from test pits that exhibit gross contamination will be stockpiled in the designated IDW Storage Area in a safe and secure location (to be determined based on volume of gross contaminated soils). Grossly contaminated soils will be stockpiled and staged on plastic sheeting (10 mil min) and covered with 6 mil. minimum plastic sheeting to protect against precipitation, or alternatively, containerized in a double lined (10 mil min.) roll-off container. Stockpile volumes on plastic sheeting shall not exceed 100-cubic yards. Additional waste characterization samples may be collected as necessary and separate stockpiles may be used to segregate clearly grossly contaminated material of different characteristics. One (1) waste

characterization sample will be collected for every 100-cubic yards of stockpiled material. Waste characterization sample analysis shall include the full suite of toxicity characteristics:

- Toxicity Characteristic Leaching Procedure (TCLP) VOCs, SVOCs, and Metals
- PCBs
- Flash Point and Paint Filter Test
- pH
- Reactivity, Cyanide
- Reactivity, Sulfide

A record of which test pit soil is in each stockpile, where they are stockpiled, and which waste characterization results represent that material will be kept in the field notebook and included in the RIR.

Soils from borings conducted for monitoring well installation will be stockpiled, containerized in Department of Transportation (DOT)-compliant 55-gallon open topped steel drums and stored in the IDW Storage Location or containerized in a double lined (10-mil [min]) roll-off container. One (1) waste characterization sample will be collected for every 100-cubic yards of stockpiled or drummed materials.

6.2 Water

Monitoring well purge water and equipment decontamination water will be containerized in compliant totes or DOT-compliant 55-gallon open top steel drums in the IDW Storage Area and discharged to the sanitary sewer system under a specific approval or profiled to be disposed of offsite as a waste.

6.3 Personal Protective and Disposable Sampling Equipment

Personal Protective Equipment (PPE), disposal sampling equipment (ex. bailers and rope), and general trash that may come in contact with potentially impacted soils/water generated during completion of the RI will be containerized in DOT-compliant 55-gallon open top steel drums or a roll-off container and stored in the IDW Storage Area. These materials will be secured and labeled as non-hazardous waste and disposed of accordingly.

6.4 Discovered Drums

During the excavation of test pits, any encountered drums containing solid materials will be removed and temporarily staged on poly sheeting and covered with poly sheeting on the ground surface at the location the drum was discovered. If drums of liquids are encountered, the integrity will be evaluated. If intact, the drums will be staged on poly sheeting. If the removed drums are potentially compromised, the drums will be placed in a DOT compliant open-top overpack drum, appropriately labeled, and staged on poly. Then at the completion of the test pitting work all discovered drums will be moved to a lined and covered roll-off container for temporary storage before offsite disposal. The observed contents within the drums will be sampled for the full suite of toxicity characteristic and once the laboratory data is available, waste disposal profiles will be established with authorized disposal facility for offsite disposal

Spill kits and absorbent pads will be available onsite during the test pitting excavations to assist with managing liquids that may leak from a discovered drum.

6.5 Medical Waste

Observed Medical Waste from the excavation of test pits will be removed and segregated from the other excavated material of the test pits and placed in a DOT compliant shipping container such as an open top 55-gallon drum. The container of Medical Waste will be labeled as Medical Waste and temporarily stored

with other generated IDW onsite in a secure location. A waste profile will be established with an authorized solid waste management facility that is approved to accept Medical Waste and the Medical Waste will be transported under manifest to be disposed of at an authorized solid waste management facility in accordance with NYSDEC regulations for Medical Waste.

7 Fish and Wildlife Resources Impact Analysis

Inventum will conduct Step I (Site Description) of a Fish and Wildlife Resources Impact Analysis (FWRIA) in accordance with DER-10 and the October 1994 NYSDEC guidance document *Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites*. The Step I findings will be presented in the RIR and will include the required Appendix 3C Decision Key, site maps, description(s) of fish and wildlife resources, and a description(s) of fish and wildlife resource value.

8 Interim Remedial Measures

Inventum has identified multiple IRMs that may be warranted. None of the conditions pose an immediate risk to human health or the environment; however, they impact 80 Lyndon Road's ability to provide a safe and secure means to conduct the proposed RI, access the locations necessary to conduct the RI, eliminate conditions that could mask Site related conditions, and comply with other Site related permits.

The general scope and objective of each currently anticipated IRM is described in the sections below. Independent IRM work plans will be submitted to NYSDEC for review and approval under separate cover. The justification and technical basis for inclusion of the IRMs under the BCP will be provided with each IRM Work Plan.

8.1 Site Management

The Site Management IRM is intended to include the required Site security, site controls and management of materials on the surface within the footprint of the former landfill that may obstruct the ability to safely conduct operations or RI activities. Of particular concern is the proper management and disposal of suspect medical waste that may be near the surface and that 80 Lyndon Road does not want on their property.

8.2 Tree Clearing

80 Lyndon Road is considering developing an IRM work plan to address tree clearing to allow complete inspection of the former landfill, provide access for the investigation, and in preparation, and prepare for anticipated remedial actions. The IRM would address proper tree clearing procedures to minimize disturbances to subsoils and prevent impacts to stream and wetlands.

8.3 Excavation Work Plan

The Excavation Interim Remedial Measures Work Plan (Inventum, September 19, 2024) is intended to provide the procedures for the safe excavation of the foundations for a third ice-skating rink while, and supporting, the investigation work for the 80 Lyndon Road BCP Site. The excavation activity will be overseen by the environmental professionals conducting the remedial investigation and the excavation activities will allow far more observation and sampling of the Site's fill than would be possible during an investigation.

9 Remedial Investigation Report

A Remedial Investigation Report (RIR) will be prepared consistent with NYSDEC DER-10 and will include, at minimum, the following components:

- Introduction
- Site Description and History
- Site Physical Characteristics
- RI Scope of Work and Results Summary
- Implemented IRM Summary
- Data Validation and Usability
- Nature and Extent of Contamination
- Contaminant Fate and Transport
- Qualitative Exposure Assessment
- Cleanup Objectives
- Summary and Conclusions

The RIR will include a discussion of the RI results compared to applicable SCGs which are the Soil Cleanup Objectives (SCOs) under 6 NYCRR Part 375 and the groundwater effluent limitations for discharge to Class GA waters under 6 NYCRR Part 703.6. The discussion in the RIR on the nature and extent of contamination will be focused on any exceedances of applicable Commercial Use SCOs.

Depending on the findings of the RI, 80 Lyndon Rd., LLC may propose submitting a combined RI/AA Report at the conclusion of the RI.

10 Schedule

The Remedial Investigations are expected to begin in the third quarter 2024, followed by the Alternatives Analysis, Remedial Design, and Remediation. A Certificate of Completion is expected in the fourth quarter of 2025. While the proposed durations for the investigation and testing are appropriate, the start date of these activities is dependent on approval of this RIWP. The BCP Application has been determined to be complete by the NYSDEC and the BCP Agreement NYSDEC and 80 Lyndon Rd., LLC has been finalized The schedule as presented assumes:

- RIWP – Third Quarter 2024
- Citizen Participation Plan (CPP) – Third Quarter 2024
- Excavation Interim Remedial Measures Work Plan, Third Quarter 2024
- Additional Interim Remedial Measures (IRM) Work Plans – First Quarter 2024
- Site Management – Third Quater 2024
- Remedial Investigation (RI) – Fourth Quarter 2024 to First Quarter 2025
- Groundwater sampling no sooner than 14 days after a well is completed and developed.
- Soil vapor sampling – Soil outside structures during RI, Indoor Heating Season 2025/2026.
- Laboratory testing will be completed in the third and fourth quarter 2024.
- Draft RIR by the end of the Second Quarter 2025
- RI Report/Alternatives Analysis (AA) Report – Third Quarter 2025
- Certificate of Completion – 2026

With the sampling scheduled into the winter season, the drilling program and overall duration could be extended by as much as two to three weeks.

11 Bibliography

The bibliography provides a list of documents used in conjunction with site visits, discussions with NYSDEC personnel and contractors to develop this RIWP.

1. NYSDEC, December 11, 2023, Environmental Site Remediation Database Search Details, https://extapps.dec.ny.gov/cfmx/extapps/derexternal/haz/details.cfm?ProgNo=828026B

2. Paradigm, 2022, Analytical Report for Rochester Ice Center, 225960, Soil Pile Sampling

3. Phase I Environmental Site Assessment of the Thomas Creek Ice Arena. 80 Lyndon Road, Perinton, New York, 14305. LCS Inc. March 2, 2016.

4. Parsons, 2020, Inactive Landfill Initiative, Work Assignments #D007623-33/D009811-02, Prepared for the New York State Department of Environmental Conservation, Albany, New York, November.

5. Ramboll, 2022, Schedule 1 – Scope of Work, Site Characterization for Lyndon Road Landfill, Perinton, New York

6. SGS, 2023, Analytical Reports for Lyndon Road Landfill, (JD61598, JD60906, JD60984, JD61307, JD61586, JD61598, JD61785, JD62631, JD62640, JD62646, JD64649)

7. Environmental Data Resources, 2023 Radius Map Report with GeoCheck. 80 Lyndon Road. 80 Lyndon Road, Fairport, NY. November 20232.

8. Schultz Associates, Engineers and Land Surveyors, P.C., 2023, Survey, 80 Lyndon Road

9. Inventum Engineering, P.C., 2024, Excavation Interim Remedial Measures Work Plan, 80 Lyndon Rd., LLC, Site #C828230, September.

Tables

Table 1
Soil Data
2023 Site Characterization for Lyndon Road Landfill
80 Lyndon Road
Fairport, New York

Analytes	EPA-TCLP	Protection of Groundwater	Restricted Residential	Commercial	Industrial	Sample ID	LR-MW06-08-09-022423	LR-MW06-0.0-0.2-022423	LR-MW05-0.0-0.2-022723	LR-MW06-0.2-1.0-022423	LR-MW07-0.0-0.5-022723	LR-MW07-0.0-0.2-022723	LR-MW07-0.2-1.0-022723	LR-MW-05-0.0-0.2-022723	LR-MW-05-0.2-1.0-022723	DUP-022723	LR-MW-07-22-24-022723	LR-TT06-04-05-030823	LR-TT06-0.2-1.0-030823	LR-TT04-0.2-1.0-030823	LR-TT04-02-03-030823	DUP-030723	LR-TT01-0.0-0.2-030723	LR-TT01-0.2-1.0-030723	LR-TT01-05-06-030723	LR-TT07-0.2-1.0-030723	LR-TT07-04-05-030723	LR-TT02-0.2-1.0-030723	LR-TT02-0.2-1.0-030723_MSD	LR-TT02-0.0-0.2-030723	LR-TT03-05-06-030723	LR-TT03-0.0-0.2-030723	LR-TT03-0.2-1.0-030723
	Comparative Standards					Sample Depth (ft. BGS)	08 - 09	0.0 - 0.2	0.0 - 0.2	0.2 - 1.0	0.0 - 0.5	0.0 - 0.2	0.2 - 1.0	0.0 - 0.2	0.2 - 1.0	-	22 - 24	04 - 05	0.2 - 1.0	0.2 - 1.0	02 - 03	-	0.0 - 0.2	0.2 - 1.0	05 - 06	0.2 - 1.0	04 - 05	0.2 - 1.0	0.2 - 1.0	0.0 - 0.2	05 - 06	0.0 - 0.2	0.2 - 1.0
	EPA-TCLP	Protection of Groundwater	Restricted Residential	Commercial	Industrial	Units	2/24/2023	2/24/2023	2/27/2023	2/24/2023	2/27/2023	2/27/2023	2/27/2023	2/27/2023	2/27/2023	2/27/2023	2/27/2023	3/8/2023	3/8/2023	3/8/2023	3/8/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023
TAL Metals, 6010D																																	
Aluminum	-	-	-	-	-	mg/kg	-	-	-	6,380	-	4,140	-	-	-	4,990	-	-	-	-	-	6,440	-	-	-	-	-	6,100	-	-	-	-	-
Antimony	-	-	-	-	-	mg/kg	-	-	-	<2.50 U	-	<2.6 U	-	-	-	<2.8 U	-	-	-	-	-	<2.7 U	-	-	-	-	-	<2.4 U	-	-	-	-	-
Arsenic	-	16	16	16	16	mg/kg	-	-	-	3.30	-	<2.6 U	-	-	-	3	-	-	-	-	-	4.6	-	-	-	-	-	4.2	-	-	-	-	-
Barium	-	820	400	400	10,000	mg/kg	-	-	-	79.20	-	27	-	-	-	31.6	-	-	-	-	-	242	-	-	-	-	-	76.1	-	-	-	-	-
Beryllium	-	47	72	590	2,700	mg/kg	-	-	-	0.41	-	<0.26 U	-	-	-	<0.28 U	-	-	-	-	-	0.38	-	-	-	-	-	0.37	-	-	-	-	-
Cadmium	-	7.5	4.3	9.3	60	mg/kg	-	-	-	<0.62 U	-	<0.64 U	-	-	-	<0.69 U	-	-	-	-	-	<0.68 U	-	-	-	-	-	<0.61 U	-	-	-	-	-
Calcium	-	-	-	-	-	mg/kg	-	-	-	35,500	-	70,500	-	-	-	27,300	-	-	-	-	-	32,000	-	-	-	-	-	28,500	-	-	-	-	-
Chromium	-	-	-	-	-	mg/kg	-	-	-	9.40	-	9.7	-	-	-	10.7	-	-	-	-	-	12.6	-	-	-	-	-	9.1	-	-	-	-	-
Cobalt	-	-	-	-	-	mg/kg	-	-	-	<6.20 U	-	<6.4 U	-	-	-	<6.9 U	-	-	-	-	-	<6.8 U	-	-	-	-	-	<6.1 U	-	-	-	-	-
Copper	-	1,720	270	270	10,000	mg/kg	-	-	-	13.50	-	10.8	-	-	-	14.2	-	-	-	-	-	17.8	-	-	-	-	-	13.3	-	-	-	-	-
Iron	-	-	-	-	-	mg/kg	-	-	-	11,500	-	9,090	-	-	-	10,900	-	-	-	-	-	12,700	-	-	-	-	-	12,000	-	-	-	-	-
Lead	-	450	400	1,000	3,900	mg/kg	-	-	-	446	-	27.6	-	-	-	37	-	-	-	-	-	1,670	-	-	-	-	-	287	-	-	-	-	-
Magnesium	-	-	-	-	-	mg/kg	-	-	-	11,000	-	31,600	-	-	-	11,600	-	-	-	-	-	10,600	-	-	-	-	-	10,200	-	-	-	-	-
Manganese	-	2,000	2,000	10,000	10,000	mg/kg	-	-	-	363	-	327	-	-	-	339	-	-	-	-	-	300	-	-	-	-	-	292	-	-	-	-	-
Mercury (Method SW846 7471B)	-	0.73	0.81	2.8	5.7	mg/kg	-	-	-	0.055	-	<0.040 U	-	-	-	<0.038 U	-	-	-	-	-	0.092	-	-	-	-	-	0.082	-	-	-	-	-
Nickel	-	130	310	310	10,000	mg/kg	-	-	-	8.80	-	6.8	-	-	-	8.4	-	-	-	-	-	10.1	-	-	-	-	-	8.8	-	-	-	-	-
Potassium	-	-	-	-	-	mg/kg	-	-	-	<1,200 U	-	<1,300 U	-	-	-	<1,400 U	-	-	-	-	-	<1,400 U	-	-	-	-	-	<1,200 U	-	-	-	-	-
Selenium	-	4	180	1,500	6,800	mg/kg	-	-	-	<2.50 U	-	<2.6 U	-	-	-	<2.8 U	-	-	-	-	-	<2.7 U	-	-	-	-	-	<2.4 U	-	-	-	-	-
Silver	-	8.3	180	1,500	6,800	mg/kg	-	-	-	0.81	-	<0.64 U	-	-	-	<0.69 U	-	-	-	-	-	<0.68 U	-	-	-	-	-	<0.61 U	-	-	-	-	-
Sodium	-	-	-	-	-	mg/kg	-	-	-	<1,200 U	-	<1,300 U	-	-	-	<1,400 U	-	-	-	-	-	<1,400 U	-	-	-	-	-	<1,200 U	-	-	-	-	-
Thallium	-	-	-	-	-	mg/kg	-	-	-	<1.20 U	-	<1.3 U	-	-	-	<1.4 U	-	-	-	-	-	<1.4 U	-	-	-	-	-	<1.2 U	-	-	-	-	-
Vanadium	-	-	-	-	-	mg/kg	-	-	-	14.40	-	9.8	-	-	-	11.6	-	-	-	-	-	16.7	-	-	-	-	-	15.2	-	-	-	-	-
Zinc	-	2,480	10,000	10,000	10,000	mg/kg	-	-	-	130.0	-	83.9	-	-	-	104	-	-	-	-	-	266	-	-	-	-	-	93.8	-	-	-	-	-
General Chemistry																																	
Total Solids (Method SW846 9012B/LACHAT)	-	-	-	-	-	%	-	-	-	84.8	-	75.7	-	-	-	73.7	-	80.8	81.8	75.7	84.6	73.5	-	72	-	82	79	79.6	-	83.5	-	-	83.5
Total Organic Carbon Method 1988	-	-	-	-	-	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	48,500	24,200	-	13,100	-	33,100	-	9,650	-	11,100	-	5,570	-	-	5,570
pH (Method 9045D)	-	-	-	-	-	su	-	-	-	-	-	-	-	-	-	-	-	-	7.32	7.57	7.93	7.71	-	7.55	7.16	7.76	7.75	7.56	7.73	7.62	7.81	-	7.62
Cyanide (Method SM2540 G 18th ED MOD)	-	40	27	27	10,000	mg/kg	-	-	-	0.36	-	0.5	-	-	-	0.54	-	7.64	-	-	-	<0.33 U	-	-	-	-	-	<0.31 U	-	-	-	-	-
TCL SVOCs, 8270E																																	
1,4- Dioxane	-	100	13,000	130,000	250,000	ug/kg	<29 U	<27 U	<28 U	<120 U	-	<27 U	<120 U	<28 U	<28 U	<29 U	<22 U	<53 U	-	-	<130 U	-	<680 U	-	-	-	<26 U	<27 U	-	<28 U	-	<28 U	-
TCL VOCs, 8260D																																	
Acetone	-	50	100,000	500,000	1,000,000	ug/kg	-	-	-	<4.5 U	17.4	-	-	-	-	<4.2 U	-	-	-	-	-	ND U	-	-	-	-	-	34.9	-	-	-	-	-
Benzene	-	60	4,800	44,000	89,000	ug/kg	-	-	-	<0.50 U	<0.60 U	-	-	-	-	<0.46 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.53 U	-	-	-	-	-
Bromochloromethane	-	-	-	-	-	ug/kg	-	-	-	<0.61 U	<0.73 U	-	-	-	-	<0.57 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.65 U	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	ug/kg	-	-	-	<0.47 U	<0.56 U	-	-	-	-	<0.43 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.50 U	-	-	-	-	-
Bromoform	-	-	-	-	-	ug/kg	-	-	-	<1.5 U	<1.8 U	-	-	-	-	<1.4 U	-	-	-	-	-	ND U	-	-	-	-	-	<1.6 U	-	-	-	-	-
Bromomethane	-	-	-	-	-	ug/kg	-	-	-	<0.83 U	<1.0 U	-	-	-	-	<0.77 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.89 U	-	-	-	-	-
2-Butanone (MEK)	-	120	100,000	500,000	1,000,000	ug/kg	-	-	-	<2.7 U	<3.2 U	-	-	-	-	<2.5 U	-	-	-	-	-	ND U	-	-	-	-	-	<2.8 U	-	-	-	-	-
Carbon disulfide	-	-	-	-	-	ug/kg	-	-	-	<0.58 U	<0.70 U	-	-	-	-	<0.54 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.62 U	-	-	-	-	-
Carbon tetrachloride	-	760	2,400	22,000	44,000	ug/kg	-	-	-	<0.67 U	<0.81 U	-	-	-	-	<0.63 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.72 U	-	-	-	-	-
Chlorobenzene	-	1,100	100,000	500,000	1,000,000	ug/kg	-	-	-	<0.50 U	<0.60 U	-	-	-	-	<0.46 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.53 U	-	-	-	-	-
Chloroethane	-	-	-	-	-	ug/kg	-	-	-	<0.65 U	<0.77 U	-	-	-	-	<0.6 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.69 U	-	-	-	-	-
Chloroform	-	370	49,000	350,000	700,000	ug/kg	-	-	-	<0.57 U	<0.68 U	-	-	-	-	<0.53 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.60 U	-	-	-	-	-
Chloromethane	-	-	-	-	-	ug/kg	-	-	-	<2.1 U	<2.6 U	-	-	-	-	<2.0 U	-	-	-	-	-	ND U	-	-	-	-	-	<2.3 U	-	-	-	-	-
Cyclohexane	-	-	-	-	-	ug/kg	-	-	-	<0.72 U	<0.86 U	-	-	-	-	<0.67 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.76 U	-	-	-	-	-
1,2-Dibromo-3-chloropropane	-	-	-	-	-	ug/kg	-	-	-	<0.76 U	<0.91 U	-	-	-	-	<0.7 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.81 U	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	ug/kg	-	-	-	<0.61 U	<0.73 U	-	-	-	-	<0.57 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.65 U	-	-	-	-	-
1,2-Dibromoethane	-	-	-	-	-	ug/kg	-	-	-	<0.46 U	<0.55 U	-	-	-	-	<0.43 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.49 U	-	-	-	-	-
1,2-Dichlorobenzene	-	1,100	100,000	500,000	1,000,000	ug/kg	-	-	-	<0.60 U	<0.72 U	-	-	-	-	<0.55 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.64 U	-	-	-	-	-
1,3-Dichlorobenzene	-	2,400	49,000	280,000	560,000	ug/kg	-	-	-	<0.54 U	<0.65 U	-	-	-	-	<0.5 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.58 U	-	-	-	-	-
1,4-Dichlorobenzene	-	100	13,000	130,000	250,000	ug/kg	-	-	-	<0.54 U	<0.65 U	-	-	-	-	<0.5 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.57 U	-	-	-	-	-
Dichlorodifluoromethane	-	-	-	-	-	ug/kg	-	-	-	<0.79 U	<0.95 U	-	-	-	-	<0.74 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.85 U	-	-	-	-	-
1,1-Dichloroethane	-	270	26,000	240,000	480,000	ug/kg	-	-	-	<0.54 U	<0.65 U	-	-	-	-	<0.5 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.58 U	-	-	-	-	-
1,2-Dichloroethane	-	20	3,100	30,000	60,000	ug/kg	-	-	-	<0.51 U	<0.62 U	-	-	-	-	<0.48 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.55 U	-	-	-	-	-
1,1-Dichloroethene	-	330	100,000	500,000	1,000,000	ug/kg	-	-	-	<0.72 U	<0.86 U	-	-	-	-	<0.66 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.76 U	-	-	-	-	-
cis-1,2-Dichloroethene	-	250	59	500,000	1,000,000	ug/kg	-	-	-	<0.92 U	<1.1 U	-	-	-	-	<0.85 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.98 U	-	-	-	-	-
trans-1,2-Dichloroethene	-	190	100,000	500,000	1,000,000	ug/kg	-	-	-	<0.67 U	<0.80 U	-	-	-	-	<0.62 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.71 U	-	-	-	-	-
1,2-Dichloropropane	-	-	-	-	-	ug/kg	-	-	-	<0.52 U	<0.62 U	-	-	-	-	<0.48 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.55 U	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	-	-	ug/kg	-	-	-	<0.52 U	<0.62 U	-	-	-	-	<0.48 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.55 U	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	-	-	-	ug/kg	-	-	-	<0.50 U	<0.60 U	-	-	-	-	<0.46 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.53 U	-	-	-	-	-
Ethylbenzene	-	1,000	41,000	390,000	780,000	ug/kg	-	-	-	<0.49 U	<0.59 U	-	-	-	-	<0.46 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.53 U	-	-	-	-	-
Freon 113	-	-	-	-	-	ug/kg	-	-	-	<2.9 U	<3.5 U	-	-	-	-	<2.7 U	-	-	-	-	-	ND U	-	-	-	-	-	<3.1 U	-	-	-	-	-
2-Hexanone	-	-	-	-	-	ug/kg	-	-	-	<2.3 U	<2.8 U	-	-	-	-	<2.1 U	-	-	-	-	-	ND U	-	-	-	-	-	<2.5 U	-	-	-	-	-
Isopropylbenzene	-	-	-	-	-	ug/kg	-	-	-	<1.6 U	<1.9 U	-	-	-	-	<1.4 U	-	-	-	-	-	ND U	-	-	-	-	-	<1.7 U	-	-	-	-	-
Methyl Acetate	-	-	-	-	-	ug/kg	-	-	-	<1.5 U	26.8	-	-	-	-	<1.4 U	-	-	-	-	-	ND U	-	-	-	-	-	5.8	-	-	-	-	-
Methylcyclohexane	-	-	-	-	-	ug/kg	-	-	-	<0.96 U	<1.1 U	-	-	-	-	<0.89 U	-	-	-	-	-	ND U	-	-	-	-	-	<1.6 U	-	-	-	-	-
Methyl Tert Butyl Ether	-	930	100,000	500,000	1,000,000	ug/kg	-	-	-	<0.51 U	<0.61 U	-	-	-	-	<0.47 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.55 U	-	-	-	-	-
4-Methyl-2-pentanone (MIBK)	-	-	-	-	-	ug/kg	-	-	-	<2.5 U	<3.0 U	-	-	-	-	<2.3 U	-	-	-	-	-	ND U	-	-	-	-	-	<2.6 U	-	-	-	-	-
Methylene chloride	-	50	100,000	500,000	1,000,000	ug/kg	-	-	-	<2.8 U	<3.4 U	-	-	-	-	<2.6 U	-	-	-	-	-	ND U	-	-	-	-	-	<3.0 U	-	-	-	-	-
Styrene	-	-	-	-	-	ug/kg	-	-	-	<0.44 U	<0.53 U	-	-	-	-	<0.41 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.47 U	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	ug/kg	-	-	-	<0.65 U	<0.78 U	-	-	-	-	<0.61 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.70 U	-	-	-	-	-
Tetrachloroethene	-	1,300	19,000	150,000	300,000	ug/kg	-	-	-	<0.63 U	<0.76 U	-	-	-	-	<0.59 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.67 U	-	-	-	-	-
Toluene	-	700	100,000	500,000	1,000,000	ug/kg	-	-	-	<0.57 U	<0.69 U	-	-	-	-	<0.53 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.61 U	-	-	-	-	-
1,2,3-Trichlorobenzene	-	-	-	-	-	ug/kg	-	-	-	<2.7 U	<3.3 U	-	-	-	-	<2.5 U	-	-	-	-	-	ND U	-	-	-	-	-	<2.9 U	-	-	-	-	-
1,2,4-Trichlorobenzene	-	-	-	-	-	ug/kg	-	-	-	<2.7 U	<3.3 U	-	-	-	-	<2.5 U	-	-	-	-	-	ND U	-	-	-	-	-	<2.9 U	-	-	-	-	-
1,1,1-Trichloroethane	-	680	100,000	500,000	1,000,000	ug/kg	-	-	-	<0.53 U	<0.63 U	-	-	-	-	<0.49 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.56 U	-	-	-	-	-
1,1,2-Trichloroethane	-	-	-	-	-	ug/kg	-	-	-	<0.60 U	<0.73 U	-	-	-	-	<0.56 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.64 U	-	-	-	-	-
Trichloroethene	-	470	10,000	200,000	400,000	ug/kg	-	-	-	<0.83 U	<1.0 U	-	-	-	-	<0.77 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.89 U	-	-	-	-	-
Trichlorofluoromethane	-	-	-	-	-	ug/kg	-	-	-	<0.75 U	<0.90 U	-	-	-	-	<0.69 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.80 U	-	-	-	-	-
Vinyl chloride	-	20	900	13,000	27,000	ug/kg	-	-	-	<0.53 U	<0.63 U	-	-	-	-	<0.49 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.56 U	-	-	-	-	-
m,p-Xylene	-	1,600	100,000	500,000	1,000,000	ug/kg	-	-	-	<0.98 U	<1.2 U	-	-	-	-	<0.91 U	-	-	-	-	-	ND U	-	-	-	-	-	<1.0 U	-	-	-	-	-
o-Xylene	-	1,600	100,000	500,000	1,000,000	ug/kg	-	-	-	<0.50 U	<0.60 U	-	-	-	-	<0.46 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.53 U	-	-	-	-	-
Xylene (Total)	-	-	-	-	-	ug/kg	-	-	-	<0.50 U	<0.60 U	-	-	-	-	<0.46 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.53 U	-	-	-	-	-
TCL SVOCs, 8270E																																	
2-Chlorophenol	-	-	-	-	-	ug/kg	-	-	-	<91 U	-	<21 U	-	-	-	<22 U	-	-	-	-	-	ND U	-	-	-	-	-	<20 U	-	-	-	-	-
4-Chloro-3-methyl phenol	-	-	-	-	-	ug/kg	-	-	-	<110 U	-	<25 U	-	-	-	<27 U	-	-	-	-	-	ND U	-	-	-	-	-	<25 U	-	-	-	-	-
2,4-Dichlorophenol	-	-	-	-	-	ug/kg	-	-	-	<160 U	-	<35 U	-	-	-	<28 U	-	-	-	-	-	ND U	-	-	-	-	-	<35 U	-	-	-	-	-
2,4-Dimethylphenol	-	-	-	-	-	ug/kg	-	-	-	<330 U	-	<74 U	-	-	-	<78 U	-	-	-	-	-	ND U	-	-	-	-	-	<74 U	-	-	-	-	-
2,4-Dinitrophenol	-	-	-	-	-	ug/kg	-	-	-	<690 U	-	<160 U	-	-	-	<170 U	-	-	-	-	-	ND U	-	-	-	-	-	<160 U	-	-	-	-	-
4,6-Dinitro-o-cresol	-	-	-	-	-	ug/kg	-	-	-	<200 U	-	<44 U	-	-	-	<47 U	-	-	-	-	-	ND U	-	-	-	-	-	<44 U	-	-	-	-	-
2-Methylphenol (O-Cresol)	-	330	100,000	500,000	1,000,000	ug/kg	-	-	-	<120 U	-	<27 U	-	-	-	<28 U	-	-	-	-	-	ND U	-	-	-	-	-	<26 U	-	-	-	-	-
3&4-Methylphenol (Cresols M & P)	-	330	100,000	500,000	1,000,000	ug/kg	-	-	-	<150 U	-	<34 U	-	-	-	<36 U	-	-	-	-	-	ND U	-	-	-	-	-	<34 U	-	-	-	-	-
2-Nitrophenol	-	-	-	-	-	ug/kg	-	-	-	<120 U	-	<27 U	-	-	-	<29 U	-	-	-	-	-	ND U	-	-	-	-	-	<27 U	-	-	-	-	-
4-Nitrophenol	-	-	-	-	-	ug/kg	-	-	-	<490 U	-	<110 U	-	-	-	<120 U	-	-	-	-	-	ND U	-	-	-	-	-	<110 U	-	-	-	-	-
Pentachlorophenol	-	800	6,700	6,700	55,000	ug/kg	-	-	-	<170 U	-	<39 U	-	-	-	<41 U	-	-	-	-	-	ND U	-	-	-	-	-	<39 U	-	-	-	-	-
Phenol	-	330	100,000	500,000	1,000,000	ug/kg	-	-	-	<96 U	-	<22 U	-	-	-	<23 U	-	-	-	-	-	ND U	-	-	-	-	-	<22 U	-	-	-	-	-
2,3,4,6-Tetrachlorophenol	-	-	-	-	-	ug/kg	-	-	-	<120 U	-	<28 U	-	-	-	<29 U	-	-	-	-	-	ND U	-	-	-	-	-	<27 U	-	-	-	-	-
2,4,5-Trichlorophenol	-	-	-	-	-	ug/kg	-	-	-	<140 U	-	<31 U	-	-	-	<33 U	-	-	-	-	-	ND U	-	-	-	-	-	<31 U	-	-	-	-	-
2,4,6-Trichlorophenol	-	-	-	-	-	ug/kg	-	-	-	<110 U	-	<25 U	-	-	-	<26 U	-	-	-	-	-	ND U	-	-	-	-	-	<25 U	-	-	-	-	-
Acenaphthene	-	98,000	100,000	500,000	1,000,000	ug/kg	-	-	-	<64 U	-	<14 U	-	-	-	<15 U	-	-	-	-	-	219	-	-	-	-	-	16.9 J	-	-	-	-	-
Acenaphthylene	-	107,000	100,000	500,000	1,000,000	ug/kg	-	-	-	<94 U	-	<21 U	-	-	-	<22 U	-	-	-	-	-	ND U	-	-	-	-	-	<21 U	-	-	-	-	-
Acetophenone	-	-	-	-	-	ug/kg	-	-	-	<40 U	-	<8.9 U	-	-	-	<9.5 U	-	-	-	-	-	ND U	-	-	-	-	-	<8.9 U	-	-	-	-	-
Anthracene	-	1,000,000	100,000	500,000	1,000,000	ug/kg	-	-	-	<110 U	-	<25 U	-	-	-	30.1 J	-	-	-	-	-	464	-	-	-	-	-	35 J	-	-	-	-	-
Atrazine	-	-	-	-	-	ug/kg	-	-	-	<79 U	-	<18 U	-	-	-	<19 U	-	-	-	-	-	ND U	-	-	-	-	-	<1.8 U	-	-	-	-	-
Benzo(a)anthracene	-	1,000	1,000	5,600	11,000	ug/kg	-	-	-	96.8 J	-	84.4	-	-	-	131	-	-	-	-	-	1,610	-	-	-	-	-	161	-	-	-	-	-
Benzo(a)pyrene	-	22,000	1,000	1,000	1,100	ug/kg	-	-	-	117 J	-	108	-	-	-	141	-	-	-	-	-	1,300	-	-	-	-	-	160	-	-	-	-	-
Benzo(b)fluoranthene	-	1,700	1,000	5,600	11,000	ug/kg	-	-	-	139 J	-	134	-	-	-	178	-	-	-	-	-	1,790	-	-	-	-	-	204	-	-	-	-	-
Benzo(g,h,i)perylene	-	1,700	100,000	500,000	1,000,000	ug/kg	-	-	-	118 J	-	77	-	-	-	89	-	-	-	-	-	648	-	-	-	-	-	93.6	-	-	-	-	-
Benzo(k)fluoranthene	-	1,700	3,900	56,000	110,000	ug/kg	-	-	-	<86 U	-	57.2	-	-	-	57.6	-	-	-	-	-	591	-	-	-	-	-	75.1	-	-	-	-	-
4-Bromophenyl phenyl ether	-	-	-	-	-	ug/kg	-	-	-	<71 U	-	<16 U	-	-	-	<17 U	-	-	-	-	-	ND U	-	-	-	-	-	<16 U	-	-	-	-	-
Butyl benzyl phthalate	-	-	-	-	-	ug/kg	-	-	-	<45 U	-	<10 U	-	-	-	<11 U	-	-	-	-	-	ND U	-	-	-	-	-	<10 U	-	-	-	-	-
1,1'-Biphenyl	-	-	-	-	-	ug/kg	-	-	-	<25 U	-	<5.7 U	-	-	-	<6.0 U	-	-	-	-	-	7.3 J	-	-	-	-	-	<5.7 U	-	-	-	-	-
Benzaldehyde	-	-	-	-	-	ug/kg	-	-	-	<46 U	-	<10 U	-	-	-	<11 U	-	-	-	-	-	120 J	-	-	-	-	-	77.4 J	-	-	-	-	-
2-Chloronaphthalene	-	-	-	-	-	ug/kg	-	-	-	<44 U	-	<9.9 U	-	-	-	<10 U	-	-	-	-	-	ND U	-	-	-	-	-	<9.8 U	-	-	-	-	-
4-Chloroaniline	-	-	-	-	-	ug/kg	-	-	-	<67 U	-	<15 U	-	-	-	<16 U	-	-	-	-	-	ND U	-	-	-	-	-	<15 U	-	-	-	-	-
Carbazole	-	-	-	-	-	ug/kg	-	-	-	<27 U	-	13.3 J	-	-	-	14.2 J	-	-	-	-	-	264	-	-	-	-	-	17.4 J	-	-	-	-	-
Caprolactam	-	-	-	-	-	ug/kg	-	-	-	<73 U	-	<16 U	-	-	-	<17 U	-	-	-	-	-	ND U	-	-	-	-	-	<16 U	-	-	-	-	-
Chrysene	-	1,000	3,900	56,000	110,000	ug/kg	-	-	-	90.7 J	-	98	-	-	-	143	-	-	-	-	-	1,460	-	-	-	-	-	149	-	-	-	-	-
bis(2-Chloroethoxy)methane	-	-	-	-	-	ug/kg	-	-	-	<40 U	-	<8.9 U	-	-	-	<9.4 U	-	-	-	-	-	ND U	-	-	-	-	-	<8.9 U	-	-	-	-	-
bis(2-Chloroethyl)ether	-	-	-	-	-	ug/kg	-	-	-	<80 U	-	<18 U	-	-	-	<19 U	-	-	-	-	-	ND U	-	-	-	-	-	<18 U	-	-	-	-	-
2,2'-Oxybis(1-chloropropane)	-	-	-	-	-	ug/kg	-	-	-	<66 U	-	<15 U	-	-	-	<16 U	-	-	-	-	-	ND U	-	-	-	-	-	<15 U	-	-	-	-	-
4-Chlorophenyl phenyl ether	-	-	-	-	-	ug/kg	-	-	-	<60 U	-	<13 U	-	-	-	<14 U	-	-	-	-	-	ND U	-	-	-	-	-	<13 U	-	-	-	-	-
2,4-Dinitrotoluene	-	-	-	-	-	ug/kg	-	-	-	<57 U	-	<13 U	-	-	-	<14 U	-	-	-	-	-	ND U	-	-	-	-	-	<13 U	-	-	-	-	-
2,6-Dinitrotoluene	-	-	-	-	-	ug/kg	-	-	-	<93 U	-	<21 U	-	-	-	<22 U	-	-	-	-	-	ND U	-	-	-	-	-	<21 U	-	-	-	-	-
3,3'-Dichlorobenzidine	-	-	-	-	-	ug/kg	-	-	-	<150 U	-	<35 U	-	-	-	<37 U	-	-	-	-	-	ND U	-	-	-	-	-	<34 U	-	-	-	-	-
1,4-Dioxane	-	1,000	13,000	130,000	250,000	ug/kg	-	-	-	<120 U	-	<27 U	-	-	-	<29 U	-	-	-	-	-	ND U	-	-	-	-	-	<27 U	-	-	-	-	-
Dibenzo(a,h)anthracene	-	1,000,000	330	560	1,100	ug/kg	-	-	-	<82 U	-	25.7 J	-	-	-	27 J	-	-	-	-	-	2,040	-	-	-	-	-	33.4 J	-	-	-	-	-
Dibenzofuran	-	210,000	59,000	350,000	1,000,000	ug/kg	-	-	-	<75 U	-	<17 U	-	-	-	<18 U	-	-	-	-	-	70.1 J	-	-	-	-	-	<17 U	-	-	-	-	-
Di-n-butyl phthalate	-	-	-	-	-	ug/kg	-	-	-	<30 U	-	<6.8 U	-	-	-	<7.2 U	-	-	-	-	-	15.5 J	-	-	-	-	-	<6.7 U	-	-	-	-	-
Di-n-octyl phthalate	-	-	-	-	-	ug/kg	-	-	-	<46 U	-	<10 U	-	-	-	<11 U	-	-	-	-	-	ND U	-	-	-	-	-	<10 U	-	-	-	-	-
Diethyl phthalate	-	-	-	-	-	ug/kg	-	-	-	<39 U	-	<8.8 U	-	-	-	<9.4 U	-	-	-	-	-	ND U	-	-	-	-	-	<8.8 U	-	-	-	-	-
Dimethyl phthalate	-	-	-	-	-	ug/kg	-	-	-	<33 U	-	<7.4 U	-	-	-	<7.8 U	-	-	-	-	-	ND U	-	-	-	-	-	<7.4 U	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	-	-	-	-	-	ug/kg	-	-	-	<43 U	-	<9.7 U	-	-	-	<10 U	-	-	-	-	-	2,110 B	-	-	-	-	-	52.4 JB	-	-	-	-	-
Fluoranthene	-	1,000,000	100,000	500,000	1,000,000	ug/kg	-	-	-	151 J	-	158	-	-	-	242	-	-	-	-	-	2,660	-	-	-	-	-	259	-	-	-	-	-
Fluorene	-	386,000	100,000	500,000	1,000,000	ug/kg	-	-	-	<85 U	-	<19 U	-	-	-	<20 U	-	-	-	-	-	1,650	-	-	-	-	-	<19 U	-	-	-	-	-
Hexachlorobenzene	-	3,200	1,200	6,000	12,000	ug/kg	-	-	-	<47 U	-	<11 U	-	-	-	<11 U	-	-	-	-	-	ND U	-	-	-	-	-	<10 U	-	-	-	-	-
Hexachlorobutadiene	-	-	-	-	-	ug/kg	-	-	-	<74 U	-	<17 U	-	-	-	<18 U	-	-	-	-	-	ND U	-	-	-	-	-	<17 U	-	-	-	-	-
Hexachlorocyclopentadiene	-	-	-	-	-	ug/kg	-	-	-	<74 U	-	<17 U	-	-	-	<18 U	-	-	-	-	-	ND U	-	-	-	-	-	<16 U	-	-	-	-	-
Hexachloroethane	-	-	-	-	-	ug/kg	-	-	-	<91 U	-	<21 U	-	-	-	<22 U	-	-	-	-	-	ND U	-	-	-	-	-	<20 U	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	-	8,200	500	5,600	11,000	ug/kg	-	-	-	91.6 J	-	74.5	-	-	-	85.6	-	-	-	-	-	892	-	-	-	-	-	109	-	-	-	-	-
Isophorone	-	-	-	-	-	ug/kg	-	-	-	<40 U	-	<8.9 U	-	-	-	<9.4 U	-	-	-	-	-	ND U	-	-	-	-	-	<8.9 U	-	-	-	-	-
2-Methylnaphthalene	-	-	-	-	-	ug/kg	-	-	-	<42 U	-	<9.4 U	-	-	-	<10 U	-	-	-	-	-	18.3 J	-	-	-	-	-	<9.3 U	-	-	-	-	-
2-Nitroaniline	-	-	-	-	-	ug/kg	-	-	-	<44 U	-	<9.8 U	-	-	-	<10 U	-	-	-	-	-	ND U	-	-	-	-	-	<9.8 U	-	-	-	-	-
3-Nitroaniline	-	-	-	-	-	ug/kg	-	-	-	<46 U	-	<10 U	-	-	-	<11 U	-	-	-	-	-	ND U	-	-	-	-	-	<10 U	-	-	-	-	-
4-Nitroaniline	-	-	-	-	-	ug/kg	-	-	-	<48 U	-	<11 U	-	-	-	<11 U	-	-	-	-	-	ND U	-	-	-	-	-	<11 U	-	-	-	-	-
Naphthalene	-	12,000	100,000	500,000	1,000,000	ug/kg	-	-	-	<52 U	-	<12 U	-	-	-	<12 U	-	-	-	-	-	21.2 J	-	-	-	-	-	<12 U	-	-	-	-	-
Nitrobenzene	-	-	-	-	-	ug/kg	-	-	-	<71 U	-	<16 U	-	-	-	<17 U	-	-	-	-	-	ND U	-	-	-	-	-	<16 U	-	-	-	-	-
N-Nitroso-di-n-propylamine	-	-	-	-	-	ug/kg	-	-	-	<53 U	-	<12 U	-	-	-	<13 U	-	-	-	-	-	ND U	-	-	-	-	-	<12 U	-	-	-	-	-
N-Nitrosodiphenylamine	-	-	-	-	-	ug/kg	-	-	-	<68 U	-	<15 U	-	-	-	<16 U	-	-	-	-	-	ND U	-	-	-	-	-	<15 U	-	-	-	-	-
Phenanthrene	-	1,000,000	100,000	500,000	1,000,000	ug/kg	-	-	-	96.3 J	-	69.1	-	-	-	130	-	-	-	-	-	1,700	-	-	-	-	-	129	-	-	-	-	-
Pyrene	-	1,000,000	100,000	500,000	1,000,000	ug/kg	-	-	-	155 J	-	132	-	-	-	214	-	-	-	-	-	2,210	-	-	-	-	-	220	-	-	-	-	-
1,2,4,5-Tetrachlorobenzene	-	-	-	-	-	ug/kg	-	-	-	<47 U	-	<11 U	-	-	-	<11 U	-	-	-	-	-	ND U	-	-	-	-	-	<11 U	-	-	-	-	-

Analytes	Comparative Standards					Sample ID:	LR-MW06-08-09-022423	LR-MW06-0.0-0.2-022423	LR-MW05-0.0-0.2-022723	LR-MW06-0.2-1.0-022423	LR-MW07-0.0-0.5-022723	LR-MW07-0.0-0.2-022723	LR-MW07-0.2-1.0-022723	LR-MW-05-0.0-0.2-022723	LR-MW-05-0.2-1.0-022723	DUP-022723	LR-MW-07-22-24-022723	LR-TT06-04-05-030823	LR-TT06-0.2-1.0-030823	LR-TT04-0.2-1.0-030823	LR-TT04-02-03-030823	DUP-030723	LR-TT01-0.0-0.2-030723	LR-TT01-0.2-1.0-030723	LR-TT01-05-06-030723	LR-TT07-0.2-1.0-030723	LR-TT07-04-05-030723	LR-TT02-0.2-1.0-030723	LR-TT02-0.2-1.0-030723_MSD	LR-TT02-0.0-0.2-030723	LR-TT03-05-06-030723	LR-TT03-0.0-0.2-030723	LR-TT03-0.2-1.0-030723
						Sample Depth (ft. BGS)	08 - 09	0.0 - 0.2	0.0 - 0.2	0.2 - 1.0	0.0 - 0.5	0.0 - 0.2	0.2 - 1.0	0.0 - 0.2	0.2 - 1.0	-	22 - 24	04 - 05	0.2 - 1.0	0.2 - 1.0	02 - 03	-	0.0 - 0.2	0.2 - 1.0	05 - 06	0.2 - 1.0	04 - 05	0.2 - 1.0	0.2 - 1.0	0.0 - 0.2	05 - 06	0.0 - 0.2	0.2 - 1.0
	EPA-TCLP	Protection of Groundwater	Restricted Residential	Commercial	Industrial	Units	2/24/2023	2/24/2023	2/27/2023	2/24/2023	2/27/2023	2/27/2023	2/27/2023	2/27/2023	2/27/2023	2/27/2023	2/27/2023	3/8/2023	3/8/2023	3/8/2023	3/8/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023	3/7/2023
Herbicides, 8151A																																	
2,4-D	-	-	-	-	-	mg/kg	-	-	-	<0.098 U	-	<0.011 U	-	-	-	<0.012 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.010 U	-	-	-	-	-
2,4,5-TP (Silvex)	-	3.80	100	500	1,000	mg/kg	-	-	-	<0.020 U	-	<0.0024 U	-	-	-	<0.0025 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.0021 U	-	-	-	-	-
2,4,5-T	-	-	-	-	-	mg/kg	-	-	-	<0.018 U	-	<0.0021 U	-	-	-	<0.0022 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.0019 U	-	-	-	-	-
Dalapon	-	-	-	-	-	mg/kg	-	-	-	<0.022 U	-	<0.0026 U	-	-	-	<0.0027 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.0023 U	-	-	-	-	-
Dicamba	-	-	-	-	-	mg/kg	-	-	-	<0.019 U	-	<0.0022 U	-	-	-	<0.0023 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.0020 U	-	-	-	-	-
Dichloroprop	-	-	-	-	-	mg/kg	-	-	-	<0.098 U	-	<0.011 U	-	-	-	<0.012 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.010 U	-	-	-	-	-
Dinoseb	-	-	-	-	-	mg/kg	-	-	-	<0.11 U	-	<0.013 U	-	-	-	<0.014 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.012 U	-	-	-	-	-
MCPA	-	-	-	-	-	mg/kg	-	-	-	<10 U	-	<1.2 U	-	-	-	<1.2 U	-	-	-	-	-	ND U	-	-	-	-	-	<1.0 U	-	-	-	-	-
MCPP	-	-	-	-	-	mg/kg	-	-	-	<15 U	-	<1.8 U	-	-	-	<1.8 U	-	-	-	-	-	ND U	-	-	-	-	-	<1.6 U	-	-	-	-	-
Pentachlorophenol	-	0.80	6.70	6.70	55	mg/kg	-	-	-	<0.0059 U	-	<0.00068 U	-	-	-	<0.00071 U	-	-	-	-	-	0.0026	-	-	-	-	-	0.0017 J	-	-	-	-	-
2,4-DB	-	-	-	-	-	mg/kg	-	-	-	<0.10 U	-	<0.012 U	-	-	-	<0.012 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.010 U	-	-	-	-	-
Pesticides, 8081B																																	
Aldrin	-	0.19	0.02	0.68	1.4	mg/kg	-	-	-	<0.000091 U	-	<0.00066 U	-	-	-	<0.00067 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.00065 U	-	-	-	-	-
alpha-BHC	-	0.02	0.48	3.4	6.8	mg/kg	-	-	-	<0.000054 U	-	<0.00065 U	-	-	-	<0.00066 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.00064 U	-	-	-	-	-
beta-BHC	-	0.09	0.36	3.0	14	mg/kg	-	-	-	<0.000068 U	-	<0.00072 U	-	-	-	<0.00074 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.00071 U	-	-	-	-	-
delta-BHC	-	0.25	100	500	1,000	mg/kg	-	-	-	<0.000070 U	-	<0.00077 U	-	-	-	<0.00078 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.00075 U	-	-	-	-	-
gamma-BHC(Lindane)	-	0.10	1.30	9.2	23	mg/kg	-	-	-	<0.000082 U	-	0.0022	-	-	-	<0.0006 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.00058 U	-	-	-	-	-
alpha-Chlordane	-	2.90	4.20	24	47	mg/kg	-	-	-	0.00089	-	<0.00065 U	-	-	-	<0.00066 U	-	-	-	-	-	0.0158	-	-	-	-	-	0.0073	-	-	-	-	-
gamma-Chlordane	-	-	-	-	-	mg/kg	-	-	-	0.00081	-	<0.00036 U	-	-	-	<0.00037 U	-	-	-	-	-	0.0148	-	-	-	-	-	0.0057	-	-	-	-	-
Dieldrin	-	0.10	0.20	1.40	2.80	mg/kg	-	-	-	0.00053	-	0.00089	-	-	-	<0.00056 U	-	-	-	-	-	0.0104	-	-	-	-	-	0.0047	-	-	-	-	-
4,4'-DDD	-	14	13.0	92	180	mg/kg	-	-	-	0.00035	-	<0.00073 U	-	-	-	<0.00075 U	-	-	-	-	-	0.004	-	-	-	-	-	0.0012	-	-	-	-	-
4,4'-DDE	-	17	8.9	62	120	mg/kg	-	-	-	0.00081	-	<0.00070 U	-	-	-	0.0015	-	-	-	-	-	0.0039	-	-	-	-	-	0.0018	-	-	-	-	-
4,4'-DDT	-	136	7.9	47	94	mg/kg	-	-	-	0.0016	-	0.0012	-	-	-	0.0027 B	-	-	-	-	-	0.0805 B	-	-	-	-	-	0.0034 B	-	-	-	-	-
Endrin	-	0.06	11	89	410	mg/kg	-	-	-	<0.000068 U	-	<0.00062 U	-	-	-	<0.00064 U	-	-	-	-	-	ND	-	-	-	-	-	<0.00061 U	-	-	-	-	-
Endosulfan sulfate	-	1,000	24	200	920	mg/kg	-	-	-	<0.000056 U	-	<0.00063 U	-	-	-	<0.00064 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.00061 U	-	-	-	-	-
Endrin aldehyde	-	-	-	-	-	mg/kg	-	-	-	<0.00014 U	-	<0.00045 U	-	-	-	<0.00046 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.00045 U	-	-	-	-	-
Endosulfan-I	-	102	24	200	920	mg/kg	-	-	-	<0.000063 U	-	<0.00046 U	-	-	-	<0.00047 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.00045 U	-	-	-	-	-
Endosulfan-II	-	102	24	200	920	mg/kg	-	-	-	<0.000065 U	-	<0.00050 U	-	-	-	<0.00051 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.00049 U	-	-	-	-	-
Heptachlor	-	0.38	2.1	15	29	mg/kg	-	-	-	<0.000061 U	-	<0.00069 U	-	-	-	<0.0007 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.00068 U	-	-	-	-	-
Heptachlor epoxide	-	-	-	-	-	mg/kg	-	-	-	0.00041	-	<0.00056 U	-	-	-	<0.00057 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.00055 U	-	-	-	-	-
Methoxychlor	-	-	-	-	-	mg/kg	-	-	-	<0.00018 U	-	<0.00064 U	-	-	-	<0.00065 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.00062 U	-	-	-	-	-
Endrin ketone	-	-	-	-	-	mg/kg	-	-	-	<0.000075 U	-	<0.00058 U	-	-	-	<0.00059 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.00057 U	-	-	-	-	-
Toxaphene	-	-	-	-	-	mg/kg	-	-	-	<0.0039 U	-	<0.019 U	-	-	-	<0.019	-	-	-	-	-	ND U	-	-	-	-	-	<0.018 U	-	-	-	-	-
PCBs, 8082A																																	
Aroclor 1016	-	3	1	1	1	mg/kg	-	-	-	<0.0022 U	-	<0.019 U	-	-	-	<0.019 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.018 U	-	-	-	-	-
Aroclor 1221	-	3	1	1	1	mg/kg	-	-	-	<0.0031 U	-	<0.025 U	-	-	-	<0.026 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.024 U	-	-	-	-	-
Aroclor 1232	-	3	1	1	1	mg/kg	-	-	-	<0.0030 U	-	<0.026 U	-	-	-	<0.027 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.025 U	-	-	-	-	-
Aroclor 1242	-	3	1	1	1	mg/kg	-	-	-	<0.0023 U	-	<0.017 U	-	-	-	<0.017 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.016 U	-	-	-	-	-
Aroclor 1248	-	3	1	1	1	mg/kg	-	-	-	<0.0051 U	-	<0.037 U	-	-	-	<0.037 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.035 U	-	-	-	-	-
Aroclor 1254	-	3	1	1	1	mg/kg	-	-	-	<0.0019 U	-	<0.022 U	-	-	-	<0.022 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.021 U	-	-	-	-	-
Aroclor 1260	-	3	1	1	1	mg/kg	-	-	-	0.0079 J	-	<0.017 U	-	-	-	<0.018 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.017 U	-	-	-	-	-
Aroclor 1268	-	3	1	1	1	mg/kg	-	-	-	<0.0025 U	-	<0.017 U	-	-	-	<0.018 U	-	-	-	-	-	ND U	-	-	-	-	-	<0.017 U	-	-	-	-	-
Aroclor 1262	-	3	1	1	1	mg/kg	-	-	-	<0.0037 U	-	<0.027 U	-	-	-	<0.027 U	-	-	-	-	-	0.0896	-	-	-	-	-	0.0706	-	-	-	-	-
TCLP Volatiles by EPA1311																																	
1,2-Dichloroethane	500	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<3.0 U	-	-	<3.0 U	-	-	-	<3.0 U	-	<3.0 U	-	-	-	<3.0 U	-	-
1,4-Dichlorobenzene	7,500	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<2.5 U	-	-	<2.5 U	-	-	-	<2.5 U	-	<2.5 U	-	-	-	<2.5 U	-	-
Chlorobenzene	100,000	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<2.8 U	-	-	<2.8 U	-	-	-	<2.8 U	-	<2.8 U	-	-	-	<2.8 U	-	-
Tetrachloroethylene (PCE)	700	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<4.5 U	-	-	<4.5 U	-	-	-	<4.5 U	-	<4.5 U	-	-	-	<4.5 U	-	-
Carbon Tetrachloride	500	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<2.8 U	-	-	<2.8 U	-	-	-	<2.8 U	-	<2.8 U	-	-	-	<2.8 U	-	-
Chloroform	6,000	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	5.5 B	-	-	4.1 JB	-	-	-	4 JB	-	4 JB	-	-	-	3.9 JB	-	-
Benzene	500	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<2.1 U	-	-	<2.1 U	-	-	-	<2.1 U	-	<2.1 U	-	-	-	<2.1 U	-	-
Vinyl Chloride	200	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<3.9 U	-	-	<3.9 U	-	-	-	<3.9 U	-	<3.9 U	-	-	-	<3.9 U	-	-
1,1-Dichloroethene	700	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<3.0 U	-	-	<3.0 U	-	-	-	<3.0 U	-	<3.0 U	-	-	-	<3.0 U	-	-
Methyl Ethyl Ketone (2-Butanone)	200,000	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<34 U	-	-	<34 U	-	-	-	<34 U	-	<34 U	-	-	-	<34 U	-	-
Trichloroethylene (TCE)	500	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<2.6 U	-	-	<2.6 U	-	-	-	<2.6 U	-	<2.6 U	-	-	-	<2.6 U	-	-
TCLP Semivolatiles by EPA 1311																																	
1,4-Dichlorobenzene	7,500	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<1.7 U	-	-	<1.7 U	-	-	-	<1.7 U	-	<1.7 U	-	-	-	<1.7 U	-	-
2,4,5-Trichlorophenol	400,000	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<13 U	-	-	<13 U	-	-	-	<13 U	-	<13 U	-	-	-	<13 U	-	-
2,4,6-Trichlorophenol	2,000	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<9.2 U	-	-	<9.2 U	-	-	-	<9.2 U	-	<9.2 U	-	-	-	<9.2 U	-	-
2,4-Dinitrotoluene	130	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<5.5 U	-	-	<5.5 U	-	-	-	<5.5 U	-	<5.5 U	-	-	-	<5.5 U	-	-
2-Methylphenol	200,000	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<8.9 U	-	-	<8.9 U	-	-	-	<8.9 U	-	<8.9 U	-	-	-	<8.9 U	-	-
3&4-Methylphenol	200,000	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<8.8 U	-	-	<8.8 U	-	-	-	<8.8 U	-	<8.8 U	-	-	-	<8.8 U	-	-
Hexachlorobenzene	130	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<3.3 U	-	-	<3.3 U	-	-	-	<3.3 U	-	<3.3 U	-	-	-	<3.3 U	-	-
Hexachlorobutadiene	500	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<4.9 U	-	-	<4.9 U	-	-	-	<4.9 U	-	<4.9 U	-	-	-	<4.9 U	-	-
Hexachloroethane	3,000	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<3.9 U	-	-	<3.9 U	-	-	-	<3.9 U	-	<3.9 U	-	-	-	<3.9 U	-	-
Nitrobenzene	2,000	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<6.4 U	-	-	<6.4 U	-	-	-	<6.4 U	-	<6.4 U	-	-	-	<6.4 U	-	-
Pentachlorophenol	100,000	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<14 U	-	-	<14 U	-	-	-	<14 U	-	<14 U	-	-	-	<14 U	-	-
Pyridine	5000	-	-	-	-	ug/l	-	-	-	-	-	-	-	-	-	-	-	<3.9 U	-	-	<3.9 U	-	-	-	<3.9 U	-	<3.9 U	-	-	-	<3.9 U	-	-
TCLP Herbicides by EPA 1311																																	
2,4-D	10	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	0.0016 J	-	-	0.0018 J	-	-	-	<0.00098 U	-	0.0014 J	-	-	-	<0.00098 U	-	-
2,4,5-TP (Silvex)	1	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	<0.00020 U	-	-	<0.00020 U	-	-	-	<0.00020 U	-	<0.00020 U	-	-	-	<0.00020 U	-	-
TCLP Pesticides by EPA 1311																																	
gamma-BHC (Lindane)	0.4	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	<0.000040 U	-	-	<0.000040 U	-	-	-	<0.000040 U	-	<0.000040 U	-	-	-	<0.000040 U	-	-
Chlordane	0.03	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	<0.0014 U	-	-	<0.0014 U	-	-	-	<0.0014 U	-	<0.0014 U	-	-	-	<0.0014 U	-	-
Endrin	0.02	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	<0.000040 U	-	-	<0.000040 U	-	-	-	<0.000040 U	-	<0.000040 U	-	-	-	<0.000040 U	-	-
Heptachlor	0.008	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	<0.000030 U	-	-	<0.000030 U	-	-	-	<0.000030 U	-	<0.000030 U	-	-	-	<0.000030 U	-	-
Heptachlor epoxide	0.008	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	<0.000040 U	-	-	<0.000040 U	-	-	-	<0.000040 U	-	<0.000040 U	-	-	-	<0.000040 U	-	-
Methoxychlor	10	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	<0.000045 U	-	-	<0.000045 U	-	-	-	<0.000045 U	-	<0.00045 U	-	-	-	<0.000045 U	-	-
Toxaphene	0.5	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	<0.0011 U	-	-	<0.0011 U	-	-	-	<0.0011 U	-	<0.0011 U	-	-	-	<0.0011 U	-	-
TCLP Metals by EPA 1311																																	
Arsenic	5	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	<0.10 U	-	-	<0.10 U	-	-	-	<0.10 U	-	<0.10 U	-	-	-	<0.10 U	-	-
Barium	100	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	1.2	-	-	0.77	-	-	-	<0.20 U	-	0.7	-	-	-	<0.20 U	-	-
Cadmium	1	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	0.017	-	-	<0.0040 U	-	-	-	<0.0040 U	-	0.006	-	-	-	<0.0040 U	-	-
(hexavalent)Chromium	5	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	<0.010 U	-	-	<0.010 U	-	-	-	<0.10 U	-	<0.010 U	-	-	-	<0.010 U	-	-
Lead	5	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	0.67	-	-	0.11	-	-	-	<0.10 U	-	<0.10 U	-	-	-	<0.10 U	-	-
Mercury (Method 7470A)	0.2	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	<0.00020 U	-	-	<0.00020 U	-	-	-	<0.00020 U	-	<0.00020 U	-	-	-	<0.00020 U	-	-
Selenium	1	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	<0.10 U	-	-	<0.10 U	-	-	-	<0.10 U	-	<0.10 U	-	-	-	<0.10 U	-	-
Silver	5	-	-	-	-	mg/l	-	-	-	-	-	-	-	-	-	-	-	<0.010 U	-	-	<0.010 U	-	-	-	<0.010 U	-	<0.010 U	-	-	-	<0.010 U	-	-

Notes:
b/ Part 375 Commercial Use SCO.
c/ Proposed Part 375 Commercial Use Soil Cleanup Objectives.
d/PFAS Groundwater Quality Screening Values from *Sampling, Analysis, and Assessmetn of Per- and Polyfluoroalkyl Substances (PFAS). NYSDEC. April 2023*
U = not detected above reporting limit shown.
J= estimated value. Results above MDL but below RL.
mg/L = milligrams per liter; ug/L = micrograms per liter; mg/kg = milligrams per kilogram; ug/kg = micrograms per kilograms; ug/g = micrograms per gram; btu/lb = british thermal units per pound.
"-" denotes absence of a proposed standard or sample was not analyzed for corresponding analyte.
"*" Minimum detection limit is higher than guidance value.
Bold value = compound is detected.
Bold with red highlight = compound exceeds Class GA Ambient Water Quality Standards
Data reported from Site Characterization For Lyndon Road Landfill (Ramboll, 2023).

Table 1A
Soil Data
2023 Site Characterization for Lyndon Road Landfill
80 Lyndon Road
Fairport, New York

Analytes	Comparative Standards April 2023 NYS PFAS Guidance			Sample ID:	LR-MW07-0.0-0.2-022723		LR-MW07-0.2-1.0-022723		LR-MW05-0.0-0.2-022723		LR-MW-05-0.2-1.0-022723		LR-MW07-22-24-022723	DUP-030723	LR-TT01-0.0-0.2-030723		LR-TT01-0.2-1.0-030723		LR-TT07-0.2-1.0-030723		LR-TT07-04-05-030723		LR-TT02-0.2-1.0-030723		LR-TT02-0.0-0.2-030723		LR-TT03-0.0-0.2-030723		LR-TT03-0.2-1.0-030723		LR-TT06-04-05-030823		LR-TT06-0.2-1.0-030823		LR-TT04-0.2-1.0-030823		LR-TT04-02-03-030823		LR-MW05-06-08-030223	
				Sample Depth (Ft. BGS):	0.0 - 0.2		0.2 - 1.0		0.0 - 0.2		0.2 - 1.0		22 - 24	-	0.0 - 0.2		0.2 - 1.0		0.2 - 1.0		04 - 05		0.2 - 1.0		0.0 - 0.2		0.0 - 0.2		0.2 - 1.0		04 - 05		0.2 - 1.0		0.2 - 1.0		02 - 03		06 - 08	
	Protection of Groundwater	Restricted Residential	Commercial	Sample Description:	Soil Sample		Soil Sample		Soil Sample		Soil Sample		Soil Sample	Soil Sample	Soil Sample		Soil Sample		Soil Sample		Soil Sample		Soil Sample		Soil Sample		Soil Sample		Soil Sample		Soil Sample		Soil Sample		Soil Sample		Soil Sample		Soil Sample	
PFAS, EPA 1633																																								
Perfluorobutanoic Acid (PFBA)	-	-	-	ug/kg	<0.67	U	<0.59	U	0.78	J	<0.64	U	<0.52	U	ND		22.10	J	1.30		<0.61	U	<0.64	U	<0.63	U	<0.66	U	<0.66	U	<0.60	U	<0.62	U	<0.61	U	0.67	J	<0.60	U	<0.71	U
Perfluoropentanoic Acid (PFPeA)	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.14	U	<0.13	U	<0.10	U	0.21	J	6.80	J	0.34	J	<0.12	U	<0.13	U	0.21	J	<0.13	U	<0.13	U	<0.12	U	<0.12	U	<0.12	U	0.14	J	<0.12	U	0.32	J
Perfluorohexanoic Acid (PFHxA)	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.14	U	<0.13	U	<0.10	U	0.2	J	4.90	J	0.26	J	<0.12	U	<0.13	U	0.18	J	<0.13	U	<0.13	U	<0.12	U	<0.12	U	<0.12	U	0.14	J	<0.12	U	0.16	J
Perfluoroheptanoic Acid (PFHpA)	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.14	U	<0.13	U	<0.10	U	0.25	J	6.60		0.26	J	<0.12	U	<0.13	U	0.21	J	0.16	J	<0.13	U	<0.12	U	<0.12	U	<0.12	U	0.13	J	<0.12	U	0.25	J
Perfluorooctanoic Acid (PFOA)	0.8	33	500	ug/kg	0.14	J	0.21	J	0.74		0.5		<0.10	U	1.2		55.0		2.00		0.17	J	0.76		1.00		0.78		0.14	J	<0.12	U	0.2	J	0.19	J	0.73		0.37		5.50	
Perfluorononanoic Acid (PFNA)	-	-	-	ug/kg	<0.15	U	<0.14	U	0.21	J	<0.15	U	<0.12	U	0.16	J	8.60		0.24	J	<0.14	U	<0.15	U	0.18	J	0.27		<0.15	U	<0.14	U	<0.14	U	<0.14	U	0.25	J	<0.14	U	0.47	
Perfluorodecanoic Acid (PFDA)	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.14	U	<0.13	U	<0.10	U	0.19	J	4.80	J	0.15	J	<0.12	U	<0.13	U	0.15	J	0.22	J	<0.13	U	<0.12	U	<0.12	U	<0.12	U	<0.13	U	<0.12	U	0.61	
Perfluoroundecanoic Acid (PFUnA)	-	-	-	ug/kg	<0.18	U	<0.16	U	<0.18	U	<0.17	U	<0.14	U	ND	U	4.80	J	0.2	J	<0.16	U	<0.17	U	<0.17	U	<0.17	U	<0.18	U	<0.16	U	<0.16	U	<0.16	U	<0.18	U	<0.16	U	<0.19	U
Perfluorododecanoic Acid (PFDoA)	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.14	U	<0.13	U	<0.10	U	ND	U	<3.1	U	<0.14	U	<0.12	U	<0.13	U	<0.13	U	<0.13	U	<0.13	U	<0.12	U	<0.13	U	<0.12	U	<0.12	U	<0.12	U	0.15	J
Perfluorotridecanoic Acid (PFTriDA)	-	-	-	ug/kg	<0.14	U	<0.12	U	<0.14	U	<0.13	U	<0.11	U	ND	U	<3.2	U	<0.14	U	<0.12	U	<0.13	U	<0.13	U	<0.13	U	<0.13	U	<0.12	U	<0.13	U	<0.12	U	<0.14	U	<0.12	U	<0.14	U
Perfluorotetradecanoic Acid (PFTA)	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.14	U	<0.13	U	<0.10	U	ND	U	<3.1	U	<0.14	U	<0.12	U	<0.13	U	<0.13	U	<0.13	U	<0.13	U	<0.12	U	<0.12	U	<0.12	U	<0.13	U	<0.12	U	<0.14	U
Perfluorobutanesulfonic Acid (PFBS)	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.14	U	<0.13	U	<0.10	U	ND	U	<3.1	U	<0.14	U	<0.12	U	<0.13	U	<0.13	U	<0.13	U	<0.13	U	<0.12	U	<0.12	U	<0.12	U	<0.13	U	<0.12	U	<0.14	U
Perfluoropentanesulfonic Acid (PFPeS)	-	-	-	ug/kg	<0.21	U	<0.18	U	<0.21	U	<0.20	U	<0.16	U	ND	U	<4.9	U	<0.22	U	<0.19	U	<0.20	U	<0.20	U	<0.21	U	<0.21	U	<0.19	U	<0.19	U	<0.19	U	<0.21	U	<0.19	U	<0.22	U
Perfluorohexanesulfonic Acid (PFHxS)	-	-	-	ug/kg	<0.21	U	<0.19	U	<0.22	U	<0.20	U	<0.17	U	ND	U	<5.0	U	<0.22	U	<0.19	U	<0.20	U	<0.20	U	<0.21	U	<0.21	U	<0.19	U	<0.20	U	<0.19	U	<0.21	U	<0.19	U	0.32	
Perfluoroheptanesulfonic Acid (PFHpS)	-	-	-	ug/kg	<0.19	U	<0.17	U	<0.20	U	<0.18	U	<0.15	U	ND	U	<4.6	U	<0.20	U	<0.18	U	<0.19	U	<0.18	U	<0.19	U	<0.19	U	<0.17	U	<0.18	U	<0.18	U	<0.19	U	<0.17	U	0.58	
Perfluorooctanesulfonic Acid (PFOS)	1	44	440	ug/kg	0.7		0.66		2.8		2.5		<0.10	U	1.7		46.10		0.98		0.75		4.3		2.40		2.00		1.30		0.80		1.4		0.52		2.8		3		46.70	
Perfluorononanesulfonic Acid (PFNS)	-	-	-	ug/kg	<0.24	U	<0.21	U	<0.25	U	<0.23	U	<0.19	U	ND	U	<5.7	U	<0.25	U	<0.22	U	<0.23	U	<0.23	U	<0.24	U	<0.24	U	<0.22	U	<0.22	U	<0.22	U	<0.24	U	<0.22	U	<0.26	U
Perfluorodecanesulfonic Acid (PFDS)	-	-	-	ug/kg	<0.19	U	<0.17	U	<0.19	U	<0.18	U	<0.15	U	ND	U	<4.5	U	<0.20	U	<0.17	U	<0.18	U	<0.18	U	<0.19	U	<0.19	U	<0.17	U	<0.18	U	<0.17	U	<0.19	U	<0.17	U	<0.20	U
Perfluorododecanesulfonic Acid	-	-	-	ug/kg	<0.20	U	<0.18	U	<0.20	U	<0.19	U	<0.16	U	ND	U	<4.7	U	<0.21	U	<0.18	U	<0.19	U	<0.25	U	<0.20	U	<0.20	U	<0.18	U	<0.18	U	<0.18	U	<0.20	U	<0.18	U	<0.21	U
4:2 Fluorotelomer sulfonate	-	-	-	ug/kg	<0.53	U	<0.47	U	<0.54	U	<0.51	U	<0.42	U	ND	U	<13	U	<0.56	U	<0.49	U	<0.51	U	<0.51	U	<0.52	U	<0.53	U	<0.48	U	<0.49	U	<0.49	U	<0.53	U	<0.48	U	<0.57	U
6:2 Fluorotelomer sulfonate	-	-	-	ug/kg	<0.53	U	<0.47	U	<0.54	U	<0.51	U	<0.42	U	ND	U	<13	U	<0.56	U	<0.49	U	<0.51	U	<0.51	U	<0.52	U	<0.53	U	<0.48	U	<0.49	U	<0.49	U	<0.53	U	<0.48	U	<0.57	U
8:2 Fluorotelomer sulfonate	-	-	-	ug/kg	<0.80	U	<0.71	U	<0.82	U	<0.76	U	<0.63	U	ND	U	<19	U	<0.84	U	<0.73	U	<0.77	U	<0.76	U	<0.79	U	<0.79	U	<0.72	U	<0.74	U	<0.73	U	<0.80	U	<0.71	U	<0.85	U
PFOSA	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.14	U	<0.13	U	<0.10	U	ND	U	<3.1	U	<0.14	U	<0.12	U	<0.13	U	<0.13	U	<0.13	U	<0.13	U	<0.12	U	<0.12	U	<0.12	U	<0.13	U	<0.12	U	0.73	
MeFOSA	-	-	-	ug/kg	<0.18	U	<0.16	U	<0.19	U	<0.17	U	<0.14	U	ND	U	<4.3	U	<0.19	U	<0.17	U	<0.17	U	<0.17	U	<0.18	U	<0.18	U	<0.16	U	<0.17	U	<0.17	U	<0.18	U	<0.16	U	<0.19	U
EtFOSA	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.14	U	<0.13	U	<0.11	U	ND	U	<3.2	U	<0.14	U	<0.12	U	<0.13	U	<0.13	U	<0.13	U	<0.13	U	<0.12	U	<0.12	U	<0.12	U	<0.13	U	<0.12	U	<0.14	U
MeFOSAA	-	-	-	ug/kg	<0.21	U	<0.19	U	<0.21	U	<0.20	U	<0.16	U	ND	U	<5.0	U	<0.22	U	<0.19	U	<0.20	U	<0.20	U	<0.21	U	<0.21	U	<0.19	U	<0.19	U	<0.19	U	<0.21	U	<0.19	U	<0.22	U
EtFOSAA	-	-	-	ug/kg	<0.26	U	<0.23	U	<0.27	U	<0.25	U	<0.21	U	ND	U	<6.2	U	<0.28	U	<0.24	U	<0.25	U	<0.25	U	<0.26	U	<0.26	U	<0.24	U	<0.24	U	<0.24	U	<0.26	U	<0.23	U	1.6	
MeFOSE	-	-	-	ug/kg	<1.3	U	<1.2	U	<1.4	U	<1.3	U	<1.0	U	ND	U	<31	U	<1.4	U	<1.2	U	<1.3	U	<1.3	U	<1.3	U	<1.3	U	<1.2	U	<1.2	U	<1.2	U	<1.3	U	<1.2	U	<1.4	U
EtFOSE	-	-	-	ug/kg	<1.3	U	<1.2	U	<1.4	U	<1.3	U	<1.0	U	ND	U	<31	U	<1.4	U	<1.2	U	<1.3	U	<1.3	U	<1.3	U	<1.3	U	<1.2	U	<1.2	U	<1.2	U	<1.3	U	<1.2	U	<1.4	U
HFPO-DA (GenX)	-	-	-	ug/kg	<0.39	U	<0.34	U	<0.39	U	<0.37	U	<0.30	U	ND	U	<9.1	U	<0.40	U	<0.35	U	<0.37	U	<0.37	U	<0.38	U	<0.38	U	<0.35	U	<0.36	U	<0.35	U	<0.38	U	<0.34	U	<0.41	U
ADONA	-	-	-	ug/kg	<0.45	U	<0.40	U	<0.46	U	<0.43	U	<0.35	U	ND	U	<11	U	<0.47	U	<0.41	U	<0.43	U	<0.43	U	<0.44	U	<0.44	U	<0.40	U	<0.41	U	<0.41	U	<0.45	U	<0.40	U	<0.48	U
PFMPA	-	-	-	ug/kg	<0.27	U	<0.24	U	<0.27	U	<0.25	U	<0.21	U	ND	U	<6.3	U	<0.28	U	<0.24	U	<0.26	U	<0.25	U	<0.26	U	<0.26	U	<0.24	U	<0.25	U	<0.24	U	<0.27	U	<0.24	U	<0.28	U
PFMBA	-	-	-	ug/kg	<0.27	U	<0.24	U	<0.27	U	<0.25	U	<0.21	U	ND	U	<6.3	U	<0.28	U	<0.24	U	<0.26	U	<0.25	U	<0.26	U	<0.26	U	<0.24	U	<0.25	U	<0.24	U	<0.27	U	<0.24	U	<0.28	U
NFDHA	-	-	-	ug/kg	<0.33	U	<0.29	U	<0.33	U	<0.31	U	<0.25	U	ND	U	<7.7	U	<0.34	U	<0.30	U	<0.31	U	<0.31	U	<0.32	U	<0.32	U	<0.29	U	<0.30	U	<0.30	U	<0.32	U	<0.29	U	<0.35	U
9Cl-PF3ONS (F-53B Major)	-	-	-	ug/kg	<0.59	U	<0.52	U	<0.60	U	<0.56	U	<0.46	U	ND	U	<14	U	<0.61	U	<0.54	U	<0.56	U	<0.56	U	<0.58	U	<0.58	U	<0.53	U	<0.54	U	<0.54	U	<0.58	U	<0.52	U	<0.62	U
11Cl-PF3OUdS (F-53B Minor)	-	-	-	ug/kg	<0.53	U	<0.47	U	<0.54	U	<0.51	U	<0.42	U	ND	U	<13	U	<0.56	U	<0.49	U	<0.51	U	<0.51	U	<0.52	U	<0.53	U	<0.48	U	<0.49	U	<0.49	U	<0.53	U	<0.48	U	<0.57	U
PFECA	-	-	-	ug/kg	<0.27	U	<0.24	U	<0.27	U	<0.25	U	<0.21	U	ND	U	<6.3	U	<0.28	U	<0.24	U	<0.26	U	<0.25	U	<0.26	U	<0.26	U	<0.24	U	<0.25	U	<0.24	U	<0.27	U	<0.24	U	<0.28	U
3:3 Fluorotelomer carboxylate	-	-	-	ug/kg	<0.68	U	<0.60	U	<0.69	U	<0.65	U	<0.53	U	ND	U	<16	U	<0.71	U	<0.62	U	<0.65	U	<0.64	U	<0.67	U	<0.67	U	<0.61	U	<0.63	U	<0.62	U	<0.68	U	<0.61	U	<0.72	U
5:3 Fluorotelomer carboxylate	-	-	-	ug/kg	<1.5	U	<1.4	U	<1.6	U	<1.5	U	<1.2	U	ND	U	<36	U	<1.6	U	<1.4	U	<1.5	U	<1.5	U	<1.5	U	<1.5	U	<1.4	U	<1.4	U	<1.4	U	<1.5	U	<1.4	U	<1.6	U
7:3 Fluorotelomer carboxylate	-	-	-	ug/kg	<1.7	U	<1.5	U	<1.7	U	<1.6	U	<1.3	U	ND	U	<40	U	<1.8	U	<1.5	U	<1.6	U	<1.6	U	<1.7	U	<1.7	U	<1.5	U	<1.6	U	<1.5	U	<1.7	U	<1.5	U	<1.8	U

Notes:
b/ Part 375 Commercial Use SCO.
c/ Proposed Part 375 Commercial Use Soil Cleanup Objectives.
d/PFAS Groundwater Quality Screening Values from *Sampling, Analysis, and Assessmetn of Per- and Polyfluoroalkyl Substances (PFAS). NYSDEC. April 2023*

U = not detected above reporting limit shown.
J= estimated value. Results above MDL but below RL.
mg/L = milligrams per liter; ug/L = micrograms per liter; mg/kg = milligrams per kilogram; ug/kg = micrograms per kilograms; ug/g = micrograms per gram; btu/lb = british thermal units per pound.

"-" denotes absence of a proposed standard or sample was not analyzed for corresponding analyte.
"**"Minimum detection limit is higher than guidance value.
Bold value = compound is detected.
Bold with red highlight = compound exceeds Class GA Ambient Water Quality Standards
Data reported from Site Characterization For Lyndon Road Landfill (Ramboll, 2023).

Table 2
Sediment Sampling
2023 Site Characterization for Lyndon Road Landfill
80 Lyndon Road
Fairport, New York

Analytes	Comparative Standards Part 375				Sample ID:	LR-SED5-032423		LR-SED8-032423	
					Sample Description:	Surface Sediment		Surface Sediment	
	Protection of Groundwater	Restricted Residential	Commercial	Industrial	Units	3/24/2023		3/24/2023	
TAL Metals, 6010D									
Aluminum	-	-	-	-	mg/kg	7,150		-	-
Antimony	-	-	-	-	mg/kg	<1.7	U	-	-
Arsenic	16	16	16	16	mg/kg	3		-	-
Barium	820	400	400	10,000	mg/kg	33.1		-	-
Beryllium	47	72	590	2,700	mg/kg	0.34		-	-
Cadmium	7.5	4.3	9.3	60	mg/kg	<0.43	U	-	-
Calcium	-	-	-	-	mg/kg	27,000		-	-
Chromium	-	-	-	-	mg/kg	11.1		-	-
Cobalt	-	-	-	-	mg/kg	5.1		-	-
Copper	1,720	270	270	10,000	mg/kg	14.4		-	-
Iron	-	-	-	-	mg/kg	14,100		-	-
Lead	450	400	1,000	3,900	mg/kg	6.9		-	-
Magnesium	-	-	-	-	mg/kg	8,790		-	-
Manganese	2,000	2,000	10,000	10,000	mg/kg	244		-	-
Mercury (Method SW846 7471B)	0.73	0.81	2.8	5.7	mg/kg	<0.041	U	-	-
Nickel	130	310	310	10,000	mg/kg	11.5		-	-
Potassium	-	-	-	-	mg/kg	1,330		-	-
Selenium	4	180	1,500	6,800	mg/kg	<1.7	U	-	-
Silver	8.3	180	1,500	6,800	mg/kg	<0.43	U	-	-
Sodium	-	-	-	-	mg/kg	<870	U	-	-
Thallium	-	-	-	-	mg/kg	<0.87	U	-	-
Vanadium	-	-	-	-	mg/kg	16.9		-	-
Zinc	2,480	10,000	10,000	10,000	mg/kg	40.6		-	-
General Chemistry (b)									
Total Solids (Method SW846 9012B/LACHAT)	-	-	-	-	%	74.9		76.9	
Total Organic Carbon Method 1988	-	-	-	-	mg/kg	9,560		5,020	
pH (Method 9045D)	-	-	-	-	su	-	-	-	-
Cyanide (Method SM254O G 18th ED MOD)	40	27	27	10,000	mg/kg	<0.290	U	-	-
TCL SVOCs, 8270E									
1,4-Dioxane	100	13,000	130,000	250,000	ug/kg	-	-	<27	U
TCL VOCs, 8260D									
Acetone	50	100,000	500,000	1,000,000	ug/kg	19.6	U	-	-
Benzene	60	4,800	44,000	89,000	ug/kg	<0.45	U	-	-
Bromochloromethane	-	-	-	-	ug/kg	<0.56	U	-	-
Bromodichloromethane	-	-	-	-	ug/kg	<0.43	U	-	-
Bromoform	-	-	-	-	ug/kg	<1.4	U	-	-
Bromomethane	-	-	-	-	ug/kg	<0.76	U	-	-
2-Butanone (MEK)	120	100,000	500,000	1,000,000	ug/kg	<2.4	U	-	-
Carbon disulfide	-	-	-	-	ug/kg	<0.53	U	-	-
Carbon tetrachloride	760	2,400	22,000	44,000	ug/kg	<0.62	U	-	-
Chlorobenzene	1,100	100,000	500,000	1,000,000	ug/kg	<0.46	U	-	-
Chloroethane	-	-	-	-	ug/kg	<0.59	U	-	-
Chloroform	370	49,000	350,000	700,000	ug/kg	<0.52	U	-	-
Chloromethane	-	-	-	-	ug/kg	<2.0	U	-	-
Cyclohexane	-	-	-	-	ug/kg	<0.65	U	-	-
1,2-Dibromo-3-chloropropane	-	-	-	-	ug/kg	<0.69	U	-	-
Dibromochloromethane	-	-	-	-	ug/kg	<0.56	U	-	-
1,2-Dibromoethane	-	-	-	-	ug/kg	<0.42	U	-	-
1,2-Dichlorobenzene	1,100	100,000	500,000	1,000,000	ug/kg	<0.54	U	-	-
1,3-Dichlorobenzene	2,400	49,000	280,000	560,000	ug/kg	<0.49	U	-	-
1,4-Dichlorobenzene	100	13,000	130,000	250,000	ug/kg	<0.49	U	-	-
Dichlorodifluoromethane	-	-	-	-	ug/kg	<0.72	U	-	-
1,1-Dichloroethane	270	26,000	240,000	480,000	ug/kg	<0.49	U	-	-
1,2-Dichloroethane	20	3,100	30,000	60,000	ug/kg	<0.47	U	-	-
1,1-Dichloroethene	330	100,000	500,000	1,000,000	ug/kg	<0.65	U	-	-
cis-1,2-Dichloroethene	250	-	500,000	1,000,000	ug/kg	<0.84	U	-	-
trans-1,2-Dichloroethene	190	100,000	500,000	1,000,000	ug/kg	<0.61	U	-	-
1,2-Dichloropropane	-	-	-	-	ug/kg	<0.47	U	-	-
cis-1,3-Dichloropropene	-	-	-	-	ug/kg	<0.47	U	-	-
trans-1,3-Dichloropropene	-	-	-	-	ug/kg	<0.46	U	-	-
Ethylbenzene	1,000	41,000	390,000	780,000	ug/kg	<0.45	U	-	-
Freon 113	-	-	-	-	ug/kg	<2.7	U	-	-
2-Hexanone	-	-	-	-	ug/kg	<2.1	U	-	-
Isopropylbenzene	-	-	-	-	ug/kg	<1.4	U	-	-
Methyl Acetate	-	-	-	-	ug/kg	3.4	J	-	-
Methylcyclohexane	-	-	-	-	ug/kg	<0.87	U	-	-
Methyl Tert Butyl Ether	930	100,000	500,000	1,000,000	ug/kg	<0.47	U	-	-
4-Methyl-2-pentanone (MIBK)	-	-	-	-	ug/kg	<2.3	U	-	-
Methylene chloride	50	100,000	500,000	1,000,000	ug/kg	<2.6	U	-	-
Styrene	-	-	-	-	ug/kg	<0.40	U	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	ug/kg	<0.60	U	-	-
Tetrachloroethene	1,300	19,000	150,000	300,000	ug/kg	<0.58	U	-	-
Toluene	700	100,000	500,000	1,000,000	ug/kg	<0.52	U	-	-
1,2,3-Trichlorobenzene	-	-	-	-	ug/kg	<2.5	U	-	-
1,2,4-Trichlorobenzene	-	-	-	-	ug/kg	<2.5	U	-	-
1,1,1-Trichloroethane	680	100,000	500,000	1,000,000	ug/kg	<0.48	U	-	-
1,1,2-Trichloroethane	-	-	-	-	ug/kg	<0.55	U	-	-
Trichloroethene	470	21,000	200,000	400,000	ug/kg	<0.76	U	-	-
Trichlorofluoromethane	-	-	-	-	ug/kg	<0.68	U	-	-
Vinyl chloride	20	900	13,000	27,000	ug/kg	<0.48	U	-	-
m,p-Xylene	1,600	100,000	500,000	1,000,000	ug/kg	<0.89	U	-	-
o-Xylene	1,600	100,000	500,000	1,000,000	ug/kg	<0.46	U	-	-
Xylene (Total)	-	-	-	-	ug/kg	<0.46	U	-	-

Table 2
Sediment Sampling
2023 Site Characterization for Lyndon Road Landfill
80 Lyndon Road
Fairport, New York

Analytes	Comparative Standards Part 375				Sample ID:	LR-SED5-032423		LR-SED8-032423	
					Sample Description:	Surface Sediment		Surface Sediment	
	Protection of Groundwater	Restricted Residential	Commercial	Industrial	Units:	3/24/2023		3/24/2023	
TCL SVOCs, 8270E									
2-Chlorophenol	-				ug/kg	<21	U	-	-
4-Chloro-3-methyl phenol	-				ug/kg	<26	U	-	-
2,4-Dichlorophenol	-				ug/kg	<37	U	-	-
2,4-Dimethylphenol	-				ug/kg	<77	U	-	-
2,4-Dinitrophenol	-				ug/kg	<160	U	-	-
4,6-Dinitro-o-cresol	-				ug/kg	<46	U	-	-
2-Methylphenol (O-Cresol)	330	100,000	500,000	1,000,000	ug/kg	<28	U	-	-
3&4-Methylphenol (Cresols M & P)	330	100,000	500,000	1,000,000	ug/kg	<36	U	-	-
2-Nitrophenol	-				ug/kg	<29	U	-	-
4-Nitrophenol	-				ug/kg	<120	U	-	-
Pentachlorophenol	800	6,700	6,700	55,000	ug/kg	<41	U	-	-
Phenol	330	100,000	500,000	1,000,000	ug/kg	<23	U	-	-
2,3,4,6-Tetrachlorophenol	-				ug/kg	<29	U	-	-
2,4,5-Trichlorophenol	-				ug/kg	<32	U	-	-
2,4,6-Trichlorophenol	-				ug/kg	<26	U	-	-
Acenaphthene	98,000	100,000	500,000	1,000,000	ug/kg	<15	U	-	-
Acenaphthylene	107,000	100,000	500,000	1,000,000	ug/kg	<22	U	-	-
Acetophenone	-				ug/kg	<9.3	U	-	-
Anthracene	1,000,000	100,000	500,000	1,000,000	ug/kg	<26	U	-	-
Atrazine	-				ug/kg	<18	U	-	-
Benzo(a)anthracene	1,000	1,000	5,600	11,000	ug/kg	<12	U	-	-
Benzo(a)pyrene	22,000	1,000	1,000	1,100	ug/kg	<20	U	-	-
Benzo(b)fluoranthene	1,700	1,000	5,600	11,000	ug/kg	<19	U	-	-
Benzo(g,h,i)perylene	1,700	100,000	500,000	1,000,000	ug/kg	<22	U	-	-
Benzo(k)fluoranthene	1,700	3,900	56,000	110,000	ug/kg	<20	U	-	-
4-Bromophenyl phenyl ether	-				ug/kg	<17	U	-	-
Butyl benzyl phthalate	-				ug/kg	<11	U	-	-
1,1'-Biphenyl	-				ug/kg	<5.9	U	-	-
Benzaldahyde	-				ug/kg	<11	U	-	-
2-Chloronaphthalene	-				ug/kg	<10	U	-	-
4-Chloroaniline	-				ug/kg	<16	U	-	-
Carbazole	-				ug/kg	<6.3	U	-	-
Caprolactam	-				ug/kg	<17	U	-	-
Chrysene	1,000	3,900	56,000	110,000	ug/kg	<14	U	-	-
bis(2-Chloroethoxy)methane	-				ug/kg	<9.2	U	-	-
bis(2-Chloroethyl)ether	-				ug/kg	<19	U	-	-
2,2'-Oxybis(1-chloropropane)	-				ug/kg	<16	U	-	-
4-Chlorophenyl phenyl- ether	-				ug/kg	<14	U	-	-
2,4-Dinitrotoluene	-				ug/kg	<13	U	-	-
2,6-Dinitrotoluene	-				ug/kg	<22	U	-	-
3,3'-Dichlorobenzidine	-				ug/kg	<36	U	-	-
1,4-Dioxane	1,000	13,000	130,000	250,000	ug/kg	<29	U	-	-
Dibenz(a,h)anthracene	1,000,000	330	560	1,100	ug/kg	<19	U	-	-
Dibenzofuran	210,000	59,000	350,000	1,000,000	ug/kg	<18	U	-	-
Di-n-butyl phthalate	-	-	-	-	ug/kg	<7.0	U	-	-
Di-n-octyl phthalate	-	-	-	-	ug/kg	<11	U	-	-
Diethyl phthalate	-	-	-	-	ug/kg	<9.2	U	-	-
Dimethyl phthalate	-	-	-	-	ug/kg	<7.7	U	-	-
bis(2-Ethylhexyl)phthalate	-	-	-	-	ug/kg	<10	U	-	-
Fluoranthene	1,000,000	100,000	500,000	1,000,000	ug/kg	<19	U	-	-
Fluorene	386,000	100,000	500,000	1,000,000	ug/kg	<20	U	-	-
Hexachlorobenzene	3,200	1,200	6,000	12,000	ug/kg	<11	U	-	-
Hexachlorobutadiene	-	-	-	-	ug/kg	<17	U	-	-
Hexachlorocyclopentadiene	-	-	-	-	ug/kg	<17	U	-	-
Hexachloroethane	-	-	-	-	ug/kg	<21	U	-	-
Indeno(1,2,3-cd)pyrene	8,200	500	5,600	11,000	ug/kg	<20	U	-	-
Isophorone	-	-	-	-	ug/kg	<9.2	U	-	-
2-Methylnaphthalene	-	-	-	-	ug/kg	<9.8	U	-	-
2-Nitroaniline	-	-	-	-	ug/kg	<10	U	-	-
3-Nitroaniline	-	-	-	-	ug/kg	<11	U	-	-
4-Nitroaniline	-	-	-	-	ug/kg	<11	U	-	-
Naphthalene	12,000	100,000	500,000	1,000,000	ug/kg	<12	U	-	-
Nitrobenzene	-	-	-	-	ug/kg	<17	U	-	-
N-Nitroso-di-n-propylamine	-	-	-	-	ug/kg	<12	U	-	-
N-Nitrosodiphenylamine	-	-	-	-	ug/kg	<16	U	-	-
Phenanthrene	1,000,000	100,000	500,000	1,000,000	ug/kg	<15	U	-	-
Pyrene	1,000,000	100,000	500,000	1,000,000	ug/kg	<14	U	-	-
1,2,4,5-Tetrachlorobenzene	-	-	-	-	ug/kg	<11	U	-	-

Table 2
Sediment Sampling
2023 Site Characterization for Lyndon Road Landfill
80 Lyndon Road
Fairport, New York

Analytes	Comparative Standards Part 375				Sample ID:	LR-SED5-032423		LR-SED8-032423	
					Sample Description:	Surface Sediment		Surface Sediment	
	Protection of Groundwater	Restricted Residential	Commercial	Industrial	Units	3/24/2023		3/24/2023	
Herbicides, 8151A									
2,4-D	-	-	-	-	mg/kg	<0.011	U	-	-
2,4,5-TP (Silvex)	3.8	100	500	1,000	mg/kg	<0.0023	U	-	-
2,4,5-T	-	-	-	-	mg/kg	<0.0020	U	-	-
Dalapon	-	-	-	-	mg/kg	<0.0025	U	-	-
Dicamba	-	-	-	-	mg/kg	<0.0021	U	-	-
Dichloroprop	-	-	-	-	mg/kg	<0.011	U	-	-
Dinoseb	-	-	-	-	mg/kg	<0.013	U	-	-
MCPA	-	-	-	-	mg/kg	<1.1	U	-	-
MCPP	-	-	-	-	mg/kg	<1.7	U	-	-
Pentachlorophenol	0.8	6.7	6.7	55	mg/kg	<0.00066	U	-	-
2,4-DB	-	-	-	-	mg/kg	<0.011	U	-	-
Pesticides, 8081B									
Aldrin	0.19	0.019	0.68	1.4	mg/kg	<0.00070	U	-	-
alpha-BHC	0.02	0.48	3.4	6.8	mg/kg	<0.00069	U	-	-
beta-BHC	0.09	0.36	3	14	mg/kg	<0.00077	U	-	-
delta-BHC	0.25	100	500	1,000	mg/kg	<0.00082	U	-	-
gamma-BHC(Lindane)	0.1	1.3	9.2	23	mg/kg	<0.00063	U	-	-
alpha-Chlordane	2.9	4.2	24	47	mg/kg	<0.00069	U	-	-
gamma-Chlordane	-	-	-	-	mg/kg	<0.00039	U	-	-
Dieldrin	0.1	0.2	1.4	2.8	mg/kg	<0.00058	U	-	-
4,4'-DDD	14	13	92	180	mg/kg	<0.00078	U	-	-
4,4'-DDE	17	8.9	62	120	mg/kg	<0.00075	U	-	-
4,4'-DDT	136	7.9	47	94	mg/kg	<0.00075	U	-	-
Endrin	0.06	11	89	410	mg/kg	<0.00066	U	-	-
Endosulfan sulfate	1,000	24	200	920	mg/kg	<0.00066	U	-	-
Endrin aldehyde	-	-	-	-	mg/kg	<0.00048	U	-	-
Endosulfan-I	102	24	200	920	mg/kg	<0.00049	U	-	-
Endosulfan-II	102	24	200	920	mg/kg	<0.00053	U	-	-
Heptachlor	0.38	2.1	15	29	mg/kg	<0.00073	U	-	-
Heptachlor epoxide	-	-	-	-	mg/kg	<0.00060	U	-	-
Methoxychlor	-	-	-	-	mg/kg	<0.00068	U	-	-
Endrin ketone	-	-	-	-	mg/kg	<0.00061	U	-	-
Toxaphene	-	-	-	-	mg/kg	<0.020	U	-	-
PCBs, 8082A									
Aroclor 1016	3.2	1	1	1	mg/kg	<0.020	U	-	-
Aroclor 1221	3.2	1	1	1	mg/kg	<0.027	U	-	-
Aroclor 1232	3.2	1	1	1	mg/kg	<0.028	U	-	-
Aroclor 1242	3.2	1	1	1	mg/kg	<0.018	U	-	-
Aroclor 1248	3.2	1	1	1	mg/kg	<0.039	U	-	-
Aroclor 1254	3.2	1	1	1	mg/kg	<0.024	U	-	-
Aroclor 1260	3.2	1	1	1	mg/kg	<0.019	U	-	-
Aroclor 1268	3.2	1	1	1	mg/kg	<0.019	U	-	-
Aroclor 1262	3.2	1	1	1	mg/kg	<0.029	U	-	-

Notes:
b/ Part 375 Commercial Use SCO.
c/ Proposed Part 375 Commercial Use Soil Cleanup Objectives.
d/PFAS Groundwater Quality Screening Values from *Sampling, Analysis, and Assessmeth of Per- and Polyfluoroalkyl Substances (PFAS). NYSDEC. April 2023*

U = not detected above reporting limit shown.
J= estimated value. Results above MDL but below RL
mg/L = milligrams per liter; ug/L = micrograms per liter; mg/kg = milligrams per kilogram; ug/kg = micrograms per kilograms; ug/g = micrograms per gram; btu/lb = british thermal units per pound.
"-" denotes absence of a proposed standard or sample was not analyzed for corresponding analyte.
"*"Minimum detection limit is higher than guidance value.
Bold value = compound is detected.
Bold with red highlight = compound exceeds Class GA Ambient Water Quality Standards
Data reported from Site Characterization For Lyndon Road Landfill (Ramboll, 2023).

Table 2A
Sediment Sampling
2023 Site Characterization for Lyndon Road Landfill
80 Lyndon Road
Fairport, New York

Analytes	Comparative Standards April 2023 NYS PFAS Guidance					Units	LR-SED4-032323		LR-SED3-032323		LR-SED-09-042623		LR-SED1-032323		LR-SED2-032323	
	Protection of Groundwater	Residential	Restricted Residential	Commerical	Industrial	Sample Date	3/23/2023		3/23/2023		4/26/2023		3/23/2023		3/23/2023	
						Screen Interval (ft bgs):	Surface		Surface		Surface		Surface		Surface	
						Matrix:	SW Sediment		SW Sediment		SW Sediment		SW Sediment		SW Sediment	
PFAS, 1633																
Perfluorobutanesulfonic acid (PFBS)	-	-	-	-	-	ug/kg	<0.26	U	<0.21	U	<0.30	U	<2.40	U	<0.29	U
Perfluoropentanesulfonic acid	-	-	-	-	-	ug/kg	<0.40	U	<0.33	U	<0.47	U	<3.70	U	<0.45	U
Perfluorohexanesulfonic acid (PFHxS)	-	-	-	-	-	ug/kg	<0.41	U	<0.33	U	<0.60	U	<3.80	U	<0.45	U
Perfluoroheptanesulfonic acid (PFHpS)	-	-	-	-	-	ug/kg	<0.37	U	<0.30	U	<0.44	U	<3.40	U	<0.41	U
Perfluorooctanesulfonic acid (PFOS)	1	8.8	44	440	440	ug/kg	14.5		0.53		5		0.93		0.90	
Perfluorononanesulfonic acid	-	-	-	-	-	ug/kg	<0.46	U	<0.37	U	<0.54	U	<0.43	U	<0.52	U
Perfluorodecanesulfonic acid (PFDS)	-	-	-	-	-	ug/kg	<0.37	U	<0.30	U	<0.43	U	<0.34	U	<0.41	U
Perfluorododecanesulfonic acid	-	-	-	-	-	ug/kg	<0.38	U	<0.31	U	<0.45	U	<0.36	U	<0.43	U
Perfluorobutanoic Acid	-	-	-	-	-	ug/kg	<1.3	U	<1.0	U	<1.5	U	3.90		<1.40	U
Perfluoropentanoic Acid (PFPeA)	-	-	-	-	-	ug/kg	<0.26	U	<0.21	U	<0.30	U	<0.24	U	<0.29	U
Perfluorohexanoic acid (PFHxA)	-	-	-	-	-	ug/kg	<0.26	U	<0.21	U	<0.30	U	<0.24	U	<0.29	U
Perfluoroheptanoic acid (PFHpA)	-	-	-	-	-	ug/kg	<0.26	U	<0.21	U	<0.30	U	<0.24	U	<0.29	U
Perfluorooctanoic acid (PFOA)	0.8	6.6	33	500	600	ug/kg	7.2		0.45		4.4		0.96		1.4	
Perfluorononanoic acid (PFNA)	-	-	-	-	-	ug/kg	<0.29	U	<0.24	U	<0.35	U	<0.27	U	<0.33	U
Perfluorodecanoic acid (PFDA)	-	-	-	-	-	ug/kg	<0.26	U	<0.21	U	<0.30	U	<0.24	U	<0.29	U
Perfluoroundecanoic Acid (PFUnA)	-	-	-	-	-	ug/kg	<0.34	U	<0.28	U	<0.40	U	<0.24	U	<0.29	U
Perfluorododecanoic acid (PFDoA)	-	-	-	-	-	ug/kg	<0.26	U	<0.21	U	<0.30	U	<0.24	U	<0.29	U
Perfluorotridecanoic Acid (PFTriA/PFTrDA)	-	-	-	-	-	ug/kg	<0.26	U	<0.21	U	<0.31	U	<0.24	U	<0.29	U
Perfluorotetradecanoic acid (PFTA)	-	-	-	-	-	ug/kg	<0.26	U	<0.21	U	<0.30	U	<0.24	U	<0.29	U
4:2 Fluorotelomer sulfonate	-	-	-	-	-	ug/kg	<1.0	U	<0.83	U	<1.2	U	<0.95	U	<1.10	U
6:2 Fluorotelomer sulfonate	-	-	-	-	-	ug/kg	<1.0	U	<0.83	U	<1.2	U	<0.95	U	<1.10	U
8:2 Fluorotelomer sulfonate	-	-	-	-	-	ug/kg	<1.5	U	<1.2	U	<1.8	U	<1.40	U	<1.70	U
PFOSA	-	-	-	-	-	ug/kg	0.69		<0.21	U	<0.30	U	<0.24	U	<0.29	U
MeFOSA	-	-	-	-	-	ug/kg	<0.35	U	<0.28	U	<0.41	U	<0.32	U	<0.39	U
EtFOSA	-	-	-	-	-	ug/kg	<0.26	U	<0.21	U	<0.30	U	<0.24	U	<0.29	U
MeFOSAA	-	-	-	-	-	ug/kg	<0.40	U	<0.33	U	<0.47	U	<0.37	U	<0.45	U
EtFOSAA	-	-	-	-	-	ug/kg	2		<0.41	U	<0.59	U	<0.47	U	<0.56	U
MeFOSE	-	-	-	-	-	ug/kg	<2.6	U	<2.1	U	<3.0	U	<2.40	U	<2.90	U
EtFOSE	-	-	-	-	-	ug/kg	<2.6	U	<2.1	U	<3.0	U	<2.40	U	<2.90	U
HFPO-DA (GenX)	-	-	-	-	-	ug/kg	<0.74	U	<0.60	U	<0.87	U	<0.68	U	<0.83	U
ADONA	-	-	-	-	-	ug/kg	<0.86	U	<0.70	U	<1.0	U	<0.80	U	<0.96	U
PFMPA	-	-	-	-	-	ug/kg	<0.51	U	<0.41	U	<0.60	U	<0.47	U	<0.57	U
PFMBA	-	-	-	-	-	ug/kg	<0.51	U	<0.41	U	<0.60	U	<0.47	U	<0.57	U
NFDHA	-	-	-	-	-	ug/kg	<0.62	U	<0.51	U	<0.73	U	<0.58	U	<1.10	U
9C1-PF3ONS (F-53B Major)	-	-	-	-	-	ug/kg	<1.1	U	<0.91	U	<1.3	U	<1.00	U	<1.30	U
11C1-PF3OUdS (F-53B Minor)	-	-	-	-	-	ug/kg	<1.0	U	<0.83	U	<1.2	U	<0.95	U	<1.10	U
PFEESA	-	-	-	-	-	ug/kg	<0.51	U	<0.41	U	<0.60	U	<0.47	U	<0.57	U
3:3 Fluorotelomer carboxylate	-	-	-	-	-	ug/kg	<1.3	U	<1.1	U	<1.5	U	<1.20	U	<1.50	U
5:3 Fluorotelomer carboxylate	-	-	-	-	-	ug/kg	<2.9	U	<2.4	U	<3.5	U	<2.70	U	<3.30	U
7:3 Fluorotelomer carboxylate	-	-	-	-	-	ug/kg	<3.2	U	<2.6	U	<3.8	U	<3.00	U	<3.60	U

Notes:
b/ Part 375 Commercial Use SCO.
c/ Proposed Part 375 Commercial Use Soil Cleanup Objectives.
d/PFAS Groundwater Quality Screening Values from *Sampling, Analysis, and Assessmetn of Per- and Polyfluoroalkyl Substances (PFAS). NYSDEC. April 2023*

U = not detected above reporting limit shown.
J= estimated value. Results above MDL but below RL.
mg/L = milligrams per liter; ug/L = micrograms per liter; mg/kg = milligrams per kilogram; ug/kg = micrograms per kilograms; ug/g = micrograms per gram; btu/lb = british thermal units per pound.

"-" denotes absence of a proposed standard or sample was not analyzed for corresponding analyte.
"*"Minimum detection limit is higher than guidance value.
Bold value = compound is detected.
Bold with red highlight = compound exceeds Class GA Ambient Water Quality Standards
Data reported from Site Characterization For Lyndon Road Landfill (Ramboll, 2023).

Table 3
Surface Water Data
2023 Site Characterization for Lyndon Road Landfill
80 Lyndon Road
Fairport, New York

Analyte	Class GA Ambient Water Quality Standards and Guidance Values	Units	LR-SW5-032423		LR-SW-INT-032423		LR-SW7-032423		LR-SW8-032423	
Sample Date:			3/24/2023		3/24/2023		3/24/2023		3/24/2023	
Sample Description:			Surface Water		Surface Water		Surface Water		Surface Water	
TCL VOCs 8260D										
Acetone	50	ug/l	<3.1	U	13		-	-	-	-
Benzene	1	ug/l	<0.43	U	<0.43	U	-	-	-	-
Bromochloromethane	5	ug/l	<0.48	U	<0.48	U	-	-	-	-
Bromodichloromethane	50	ug/l	<0.45	U	<0.45	U	-	-	-	-
Bromoform	50	ug/l	<0.63	U	<0.63	U	-	-	-	-
Bromomethane	5	ug/l	<1.6	U	<1.6	U	-	-	-	-
2-Butanone (MEK)	50	ug/l	<2.7	U	<2.7	U	-	-	-	-
Carbon disulfide	60	ug/l	<0.46	U	<0.46	U	-	-	-	-
Carbon tetrachloride	5	ug/l	<0.55	U	<0.55	U	-	-	-	-
Chlorobenzene	5	ug/l	<0.56	U	<0.56	U	-	-	-	-
Chloroethane	5	ug/l	<0.73	U	<0.73	U	-	-	-	-
Chloroform	7	ug/l	<0.50	U	<0.50	U	-	-	-	-
Chloromethane	5	ug/l	<0.76	U	<0.76	U	-	-	-	-
Cyclohexane	-	ug/l	<0.78	U	<0.78	U	-	-	-	-
1,2-Dibromo-3-chloropropane	0.04	ug/l	<0.53	U	<0.53	U	-	-	-	-
Dibromochloromethane	50	ug/l	<0.56	U	<0.56	U	-	-	-	-
1,2-Dibromoethane	0.0006	ug/l	<0.48	U	<0.48	U	-	-	-	-
1,2-Dichlorobenzene	3	ug/l	<0.53	U	<0.53	U	-	-	-	-
1,3-Dichlorobenzene	3	ug/l	<0.54	U	<0.54	U	-	-	-	-
1,4-Dichlorobenzene	3	ug/l	<0.51	U	<0.51	U	-	-	-	-
Dichlorodifluoromethane	5	ug/l	<0.56	U	<0.56	U	-	-	-	-
1,1-Dichloroethane	5	ug/l	<0.57	U	<0.57	U	-	-	-	-
1,2-Dichloroethane	0.6	ug/l	<0.60	U	<0.60	U	-	-	-	-
1,1-Dichloroethene	5	ug/l	<0.59	U	<0.59	U	-	-	-	-
cis-1,2-Dichloroethene	5	ug/l	<0.51	U	<0.51	U	-	-	-	-
trans-1,2-Dichloroethene	5	ug/l	<0.54	U	<0.54	U	-	-	-	-
1,2-Dichloropropane	1	ug/l	<0.51	U	<0.51	U	-	-	-	-
cis-1,3-Dichloropropene	0.4	ug/l	<0.47	U	<0.47	U	-	-	-	-
trans-1,3-Dichloropropene	0.4	ug/l	<0.43	U	<0.43	U	-	-	-	-
Ethylbenzene	5	ug/l	<0.60	U	<0.60	U	-	-	-	-
Freon 113	-	ug/l	<0.58	U	<0.58	U	-	-	-	-
2-Hexanone	50	ug/l	<2.0	U	<2.0	U	-	-	-	-
Isopropylbenzene	5	ug/l	<0.65	U	<0.65	U	-	-	-	-
Methyl Acetate	-	ug/l	<0.80	U	<0.80	U	-	-	-	-
Methylcyclohexane	-	ug/l	<0.60	U	<0.60	U	-	-	-	-
Methyl Tert Butyl Ether	10	ug/l	<0.51	U	<0.51	U	-	-	-	-
4-Methyl-2-pentanone (MIBK)	-	ug/l	<1.9	U	<1.9	U	-	-	-	-
Methylene chloride	5	ug/l	<1.0	U	<1.0	U	-	-	-	-
Styrene	5	ug/l	<0.49	U	<0.49	U	-	-	-	-
1,1,2,2-Tetrachloroethane	5	ug/l	<0.65	U	<0.65	U	-	-	-	-
Tetrachloroethene	5	ug/l	<0.56	U	<0.56	U	-	-	-	-
Toluene	5	ug/l	<0.49	U	<0.49	U	-	-	-	-
1,2,3-Trichlorobenzene	5	ug/l	<0.50	U	<0.50	U	-	-	-	-
1,2,4-Trichlorobenzene	5	ug/l	<0.50	U	<0.50	U	-	-	-	-
1,1,1-Trichloroethane	5	ug/l	<0.54	U	<0.54	U	-	-	-	-
1,1,2-Trichloroethane	1	ug/l	<0.53	U	<0.53	U	-	-	-	-
Trichloroethene	5	ug/l	<0.53	U	<0.53	U	-	-	-	-
Trichlorofluoromethane	5	ug/l	<0.40	U	<0.40	U	-	-	-	-
Vinyl chloride	2	ug/l	<0.52	U	<0.52	U	-	-	-	-
m,p-Xylene	5	ug/l	<0.78	U	<0.78	U	-	-	-	-
o-Xylene	5	ug/l	<0.59	U	<0.59	U	-	-	-	-
Xylene (Total)	-	ug/l	<0.59	U	<0.59	U	-	-	-	-

Table 3
Surface Water Data
2023 Site Characterization for Lyndon Road Landfill
80 Lyndon Road
Fairport, New York

Analyte	Class GA Ambient Water Quality Standards and Guidance Values	Units	LR-SW5-032423		LR-SW-INT-032423		LR-SW7-032423		LR-SW8-032423	
Sample Date:			3/24/2023		3/24/2023		3/24/2023		3/24/2023	
Sample Description:			Surface Water		Surface Water		Surface Water		Surface Water	
TCL SVOCs 8270E										
2-Chlorophenol	1	ug/l	<0.82	U	<0.82	U	-	-	-	-
4-Chloro-3-methyl phenol	1	ug/l	<0.89	U	<0.89	U	-	-	-	-
2,4-Dichlorophenol	1	ug/l	<1.3	U	<1.3	U	-	-	-	-
2,4-Dimethylphenol	1	ug/l	<2.4	U	<2.4	U	-	-	-	-
2,4-Dinitrophenol	1	ug/l	<1.6	U	<1.6	U	-	-	-	-
4,6-Dinitro-o-cresol	1	ug/l	<1.3	U	<1.3	U	-	-	-	-
2-Methylphenol (O-Cresol)	1	ug/l	<0.89	U	<0.89	U	-	-	-	-
3&4-Methylphenol (Cresols M & P)	-	ug/l	<0.88	U	<0.88	U	-	-	-	-
2-Nitrophenol	1	ug/l	<0.96	U	<0.96	U	-	-	-	-
4-Nitrophenol	1	ug/l	<1.2	U	<1.2	U	-	-	-	-
Pentachlorophenol	1	ug/l	<1.4	U	<1.4	U	-	-	-	-
Phenol	1	ug/l	<0.39	U	<0.39	U	-	-	-	-
2,3,4,6-Tetrachlorophenol		ug/l	<1.5	U	<1.5	U	-	-	-	-
2,4,5-Trichlorophenol	1	ug/l	<1.3	U	<1.3	U	-	-	-	-
2,4,6-Trichlorophenol	1	ug/l	<0.92	U	<0.92	U	-	-	-	-
Acenaphthene	20	ug/l	<0.19	U	0.19	J	-	-	-	-
Acenaphthylene	-	ug/l	<0.14	U	<0.14	U	-	-	-	-
Acetophenone	-	ug/l	<0.21	U	<0.21	U	-	-	-	-
Anthracene	50	ug/l	<0.21	U	<0.21	U	-	-	-	-
Atrazine	-	ug/l	<0.45	U	<0.45	U	-	-	-	-
Benzaldehyde	-	ug/l	<0.29	U	<0.29	U	-	-	-	-
Benzo(a)anthracene	0.002	ug/l	<0.20	U	<0.20	U	-	-	-	-
Benzo(a)pyrene	-	ug/l	<0.21	U	<0.21	U	-	-	-	-
Benzo(b)fluoranthene	0.002	ug/l	<0.21	U	<0.21	U	-	-	-	-
Benzo(g,h,i)perylene	-	ug/l	<0.34	U	<0.34	U	-	-	-	-
Benzo(k)fluoranthene	0.002	ug/l	<0.21	U	<0.21	U	-	-	-	-
4-Bromophenyl phenyl ether	-	ug/l	<0.40	U	<0.40	U	-	-	-	-
Butyl benzyl phthalate	50	ug/l	<0.46	U	<0.46	U	-	-	-	-
1,1'-Biphenyl	-	ug/l	<0.21	U	<0.21	U	-	-	-	-
2-Chloronaphthalene	10	ug/l	<0.24	U	<0.24	U	-	-	-	-
4-Chloroaniline	5	ug/l	<0.34	U	<0.34	U	-	-	-	-
Carbazole	-	ug/l	<0.23	U	<0.23	U	-	-	-	-
Caprolactam	-	ug/l	<0.65	U	<0.65	U	-	-	-	-
Chrysene	0.002	ug/l	<0.18	U	<0.18	U	-	-	-	-
bis(2-Chloroethoxy)methane	5	ug/l	<0.28	U	<0.28	U	-	-	-	-
bis(2-Chloroethyl)ether	1	ug/l	<0.25	U	<0.25	U	-	-	-	-
2,2'-Oxybis(1-chloropropane)	5	ug/l	<0.40	U	<0.40	U	-	-	-	-
4-Chlorophenyl phenyl ether	-	ug/l	<0.37	U	<0.37	U	-	-	-	-
2,4-Dinitrotoluene	5	ug/l	<0.55	U	<0.55	U	-	-	-	-
2,6-Dinitrotoluene	5	ug/l	<0.48	U	<0.48	U	-	-	-	-
3,3'-Dichlorobenzidine	5	ug/l	<0.51	U	<0.51	U	-	-	-	-
1,4-Dioxane	0.35	ug/l	<0.66	U	<0.66	U	-	-	-	-
Dibenz(a,h)anthracene	-	ug/l	<0.33	U	<0.33	U	-	-	-	-
Dibenzofuran	-	ug/l	<0.22	U	<0.22	U	-	-	-	-
Di-n-butyl phthalate	50	ug/l	3.1	B	4.2	B	-	-	-	-
Di-n-octyl phthalate	50	ug/l	<0.23	U	<0.23	U	-	-	-	-
Diethyl phthalate	50	ug/l	<0.26	U	<0.26	U	-	-	-	-
Dimethyl phthalate	50	ug/l	<0.22	U	<0.22	U	-	-	-	-
bis(2-Ethylhexyl)phthalate	5	ug/l	<1.7	U	<1.7	U	-	-	-	-
Fluoranthene	50	ug/l	<0.17	U	<0.17	U	-	-	-	-
Fluorene	50	ug/l	<0.17	U	<0.17	U	-	-	-	-
Hexachlorobenzene	0.04	ug/l	<0.33	U	<0.33	U	-	-	-	-
Hexachlorobutadiene	0.5	ug/l	<0.49	U	<0.49	U	-	-	-	-
Hexachlorocyclopentadiene	5	ug/l	<2.8	U	<2.8	U	-	-	-	-
Hexachloroethane	5	ug/l	<0.39	U	<0.39	U	-	-	-	-
Indeno(1,2,3-cd)pyrene	0.002	ug/l	<0.33	U	<0.33	U	-	-	-	-
Isophorone	50	ug/l	<0.28	U	<0.28	U	-	-	-	-
2-Methylnaphthalene	-	ug/l	<0.21	U	<0.21	U	-	-	-	-
2-Nitroaniline	5	ug/l	<0.28	U	<0.28	U	-	-	-	-
3-Nitroaniline	5	ug/l	<0.39	U	<0.39	U	-	-	-	-
4-Nitroaniline	5	ug/l	<0.44	U	<0.44	U	-	-	-	-
Naphthalene	10	ug/l	<0.23	U	<0.23	U	-	-	-	-
Nitrobenzene	0.4	ug/l	<0.64	U	<0.64	U	-	-	-	-
N-Nitroso-di-n-propylamine	-	ug/l	<0.48	U	<0.48	U	-	-	-	-
N-Nitrosodiphenylamine	50	ug/l	<0.22	U	<0.22	U	-	-	-	-
Phenanthrene	50	ug/l	<0.18	U	<0.18	U	-	-	-	-
Pyrene	50	ug/l	<0.22	U	<0.22	U	-	-	-	-
1,2,4,5-Tetrachlorobenzene		ug/l	<0.37	U	<0.37	U	-	-	-	-

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Analyte	Class GA Ambient Water Quality Standards and Guidance Values	Units	LR-SW5-032423		LR-SW-INT-032423		LR-SW7-032423		LR-SW8-032423	
Sample Date:			3/24/2023		3/24/2023		3/24/2023		3/24/2023	
Sample Description:			Surface Water		Surface Water		Surface Water		Surface Water	
TCL SVOCs 8270E										
1,4-Dioxane	0.35	ug/l	<0.050	U	0.262	U	<0.50	U	<0.50	U
Herbicides 8151A										
2,4-D	50	ug/l	<0.19	U	<0.19	U	-	-	-	-
2,4,5-TP (Silvex)	0.26	ug/l	<0.050	U	<0.051	U	-	-	-	-
2,4,5-T	35	ug/l	<0.043	U	<0.044	U	-	-	-	-
Dalapon		ug/l	<0.060	U	<0.062	U	-	-	-	-
Dicamba	0.44	ug/l	<0.025	U	<0.025	U	-	-	-	-
Dichlorprop	-	ug/l	<0.16	U	<0.16	U	-	-	-	-
Dinoseb	1	ug/l	<0.16	U	<0.16	U	-	-	-	-
MCPA	0.44	ug/l	<27	U	<28	U	-	-	-	-
MCPP	-	ug/l	<26	U	<26	U	-	-	-	-
Pentachlorophenol	1	ug/l	<0.041	U	<0.042	U	-	-	-	-
2,4-DB	-	ug/l	<0.34	U	<0.35	U	-	-	-	-
Pesticides 8081B										
Aldrin		ug/l	<0.0041	U	<0.0041	U	-	-	-	-
alpha-BHC	0.01	ug/l	<0.0042	U	<0.0042	U	-	-	-	-
beta-BHC	0.04	ug/l	<0.0064	U	<0.0064	U	-	-	-	-
delta-BHC	0.04	ug/l	<0.0053	U	<0.0053	U	-	-	-	-
gamma-BHC(Lindane)	0.05	ug/l	<0.0048	U	<0.0048	U	-	-	-	-
alpha-Chlordane	-	ug/l	<0.0039	U	<0.0039	U	-	-	-	-
gamma-Chlordane		ug/l	<0.0034	U	<0.0034	U	-	-	-	-
Dieldrin	0.004	ug/l	<0.0061	U	<0.0061	U	-	-	-	-
4,4'-DDD	0.3	ug/l	<0.0046	U	<0.0046	U	-	-	-	-
4,4'-DDE	0.2	ug/l	<0.0040	U	<0.0040	U	-	-	-	-
4,4'-DDT	0.2	ug/l	<0.0055	U	<0.0055	U	-	-	-	-
Endrin	-	ug/l	<0.0048	U	<0.0048	U	-	-	-	-
Endosulfan sulfate	-	ug/l	<0.0044	U	<0.0044	U	-	-	-	-
Endrin aldehyde	5	ug/l	<0.0054	U	<0.0054	U	-	-	-	-
Endrin ketone	5	ug/l	<0.0050	U	<0.0050	U	-	-	-	-
Endosulfan-I	-	ug/l	<0.0042	U	<0.0042	U	-	-	-	-
Endosulfan-II		ug/l	<0.0039	U	<0.0039	U	-	-	-	-
Heptachlor	0.04	ug/l	<0.0036	U	<0.0036	U	-	-	-	-
Heptachlor epoxide	0.03	ug/l	<0.0048	U	<0.0048	U	-	-	-	-
Methoxychlor	35	ug/l	<0.0054	U	<0.0054	U	-	-	-	-
Toxaphene	0.06	ug/l	<0.13	U	<0.13	U	-	-	-	-
PCB 8082A										
Aroclor 1016	-	ug/l	<0.16	U	<0.16	U	-	-	-	-
Aroclor 1221	-	ug/l	<0.34	U	<0.34	U	-	-	-	-
Aroclor 1232	-	ug/l	<0.21	U	<0.21	U	-	-	-	-
Aroclor 1242	-	ug/l	<0.18	U	<0.18	U	-	-	-	-
Aroclor 1248	-	ug/l	<0.10	U	<0.10	U	-	-	-	-
Aroclor 1254	-	ug/l	<0.33	U	<0.33	U	-	-	-	-
Aroclor 1260	-	ug/l	<0.12	U	<0.12	U	-	-	-	-
Aroclor 1268	-	ug/l	<0.14	U	<0.14	U	-	-	-	-
Aroclor 1262	-	ug/l	<0.15	U	<0.15	U	-	-	-	-
Total PCBs	0.09	ug/l	<0.34	*	<0.34	*				
Total Metals SW846 3010A										
Aluminum	-	ug/l	<200	U	<200	U	-	-	-	-
Antimony	3	ug/l	<6.0	U	<6.0	U	-	-	-	-
Arsenic	25	ug/l	<3.0	U	<3.0	U	-	-	-	-
Barium	1000	ug/l	<200	U	958		-	-	-	-
Beryllium	-	ug/l	<1.0	U	<1.0	U	-	-	-	-
Cadmium	5	ug/l	<3.0	U	<3.0	U	-	-	-	-
Calcium	-	ug/l	75200		196000		-	-	-	-
Chromium	50	ug/l	<10	U	<10	U	-	-	-	-
Cobalt	-	ug/l	<50	U	<50	U	-	-	-	-
Copper	200	ug/l	<10	U	<10	U	-	-	-	-
Iron	300	ug/l	251		29300		-	-	-	-
Lead	25	ug/l	<3.0	U	18.2		-	-	-	-
Magnesium	35000	ug/l	24500		51800		-	-	-	-
Manganese	300	ug/l	39		1020		-	-	-	-
Mercury (Method SW846 7470A)	0.7	ug/l	<0.20	U	<0.20	U	-	-	-	-
Nickel	100	ug/l	<10	U	<10	U	-	-	-	-
Potassium	-	ug/l	<10000	U	<10000	U	-	-	-	-
Selenium	10	ug/l	<10	U	<10	U	-	-	-	-
Silver	50	ug/l	<10	U	<10	U	-	-	-	-
Sodium	20000	ug/l	59700		67200		-	-	-	-
Thallium	0.5	ug/l	<10	U	<10	U	-	-	-	-
Vanadium	-	ug/l	<50	U	<50	U	-	-	-	-
Zinc	2000	ug/l	<20	U	57.8		-	-	-	-
General Chemistry										
Cyanide	0.2	mg/l	<0.010	U	<0.010	U	-	-	-	-

Notes:
U = not detected above reporting limit shown.
J= estimated value. Results above MDL but below RL.
mg/L = milligrams per liter; ug/L = micrograms per liter; mg/kg = milligrams per kilogram; ug/kg = micrograms per kilograms; ug/g = micrograms per gram; btu/lb = british thermal units per pound.

"-" denotes absence of a proposed standard or sample was not analyzed for corresponding analyte.
"*"Minimum detection limit is higher than guidance value.
Bold value = compound is detected.
Bold with red highlight = compound exceeds Class GA Ambient Water Quality Standards
"*"Minimum detection limit is higher than guidance value.
Data reported from Site Characterization For Lyndon Road Landfill (Ramboll, 2023).

Table 3A
Surface Water Data
2023 Site Characterization for Lyndon Road Landfill
80 Lyndon Road
Fairport, New York

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	LR-SW-09-042623		LR-SW4-032323		LR-SW3-032323		LR-SW1-032323		LR-SW2-032323	
Sample Date:			4/26/2023		3/23/2023		3/23/2023		3/23/2023		3/23/2023	
Sample Description:			Surface Water		Surface Water		Surface Water		Surface Water		Surface Water	
PFAS (1633)												
Perfluorobutanesulfonic acid (PFBS)	-	ng/l	1.8		1.7	J	1.6	J	1.80	J	1.70	J
Perfluoropentanesulfonic acid	-	ng/l	<0.99	U	<1.0	U	<1.2	U	<1.0		<1.0	U
Perfluorohexanesulfonic acid (PFHxS)	-	ng/l	<0.88	U	<0.93	U	<1.1	U	<0.93		<0.93	U
Perfluoroheptanesulfonic acid (PFHpS)	-	ng/l	<0.88	U	<0.93	U	<1.1	U	<0.93		<0.93	U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	1.5	J	1.7	J	1.6	J	1.80	J	2.1	
Perfluorononanesulfonic acid	-	ng/l	<0.88	U	<0.93	U	<1.1	U	<0.93		<0.93	U
Perfluorodecanesulfonic acid (PFDS)	-	ng/l	<0.88	U	<0.93	U	<1.1	U	<0.93		<0.93	U
Perfluorododecanesulfonic acid	-	ng/l	<1.0	U	<1.1	U	<1.2	U	<1.1		<1.1	U
Perfluorobutanoic Acid	-	ng/l	8.5		5.9	J	5.2	J	8.10		6.0	J
Perfluoropentanoic Acid (PFPeA)	-	ng/l	3.6		1.7	J	1.6	J	1.70	J	1.8	J
Perfluorohexanoic acid (PFHxA)	-	ng/l	2.1		2.1	U	2	J	2.00		2.3	
Perfluoroheptanoic acid (PFHpA)	-	ng/l	1.1	J	1	J	0.81	J	1.1	J	0.84	J
Perfluorooctanoic acid (PFOA)	6.7	ng/l	2.7		6.8		5.6		6.9		5.90	
Perfluorononanoic acid (PFNA)	-	ng/l	<0.54	U	<0.56	U	<0.66	U	<0.56	U	<0.56	U
Perfluorodecanoic acid (PFDA)	-	ng/l	<0.44	U	<0.46	U	<0.54	U	<0.46	U	<0.46	U
Perfluoroundecanoic Acid (PFUnA)	-	ng/l	<0.53	U	<0.56	U	<0.65	U	<0.56	U	<0.56	U
Perfluorododecanoic acid (PFDoA)	-	ng/l	<0.53	U	<0.56	U	<0.65	U	<0.56	U	<0.56	U
Perfluorotridecanoic Acid (PFTrDA/PFTrDA)	-	ng/l	<0.74	U	<0.78	U	<0.91	U	<0.78	U	<0.78	U
Perfluorotetradecanoic acid (PFTA)	-	ng/l	<0.44	U	<0.46	U	<0.54	U	<0.46	U	<0.46	U
4:2 Fluorotelomer sulfonate	-	ng/l	<3.5	U	<3.7	U	<4.3	U	<3.7	U	<3.7	U
6:2 Fluorotelomer sulfonate	-	ng/l	<3.5	U	<3.7	U	<4.3	U	<3.7	U	<3.7	U
8:2 Fluorotelomer sulfonate	-	ng/l	<3.6	U	<3.8	U	<4.5	u	<3.8	U	<3.8	U
PFOSA	-	ng/l	<0.88	U	<0.93	U	<1.1	U	<0.93	U	<0.93	U
MeFOSA	-	ng/l	<0.88	U	<0.93	U	<1.1	U	<0.93	U	<0.93	U
EtFOSA	-	ng/l	<0.88	U	<0.93	U	<1.1	U	<0.93	U	<0.93	U
MeFOSAA	-	ng/l	<0.88	U	<0.93	U	<1.1	U	<0.93	U	<0.93	U
EtFOSAA	-	ng/l	<1.2	U	<1.2	U	<1.4	U	<1.2	U	<1.2	U
MeFOSE	-	ng/l	<8.8	U	<9.3	U	<1.1	U	<9.3	U	<9.3	U
EtFOSE	-	ng/l	<8.8	U	<9.3	U	<1.1	U	<9.3	U	<9.3	U
HFPO-DA (GenX)	-	ng/l	<1.8	U	<1.9	U	<2.2	U	<1.9	U	<1.9	U
ADONA	-	ng/l	<1.8	U	<1.9	U	<2.2	U	<1.9	U	<1.9	U
PFMPA	-	ng/l	<0.88	U	<0.93	U	<1.1	U	<0.93	U	<0.93	U
PFMBA	-	ng/l	<1.0	U	<1.1	U	<1.2	U	<1.1	U	<1.1	U
NFDHA	-	ng/l	<1.1	U	<1.1	U	<1.3	U	<1.1	U	<1.1	U
9Cl-PF3ONS (F-53B Major)	-	ng/l	<1.8	U	<1.9	U	<2.2	U	<1.9	U	<1.9	U
11Cl-PF3OUdS (F-53B Minor)	-	ng/l	<1.8	U	<1.9	U	<2.2	U	<1.9	U	<1.9	U
PFEESA	-	ng/l	<0.88	U	<0.93	U	<1.1	U	<0.93	U	<0.93	U
3:3 Fluorotelomer carboxylate	-	ng/l	<4.4	U	<4.6	U	<5.4	U	<4.6	U	<4.6	U
5:3 Fluorotelomer carboxylate	-	ng/l	<8.8	U	<9.3	U	<1.1	U	<9.3	U	<9.3	U
7:3 Fluorotelomer carboxylate	-	ng/l	<8.8	U	<9.3	U	<1.1	U	<9.3	U	<9.3	U

Notes: LR-SW1-032323 and LR-SW2-032323 results are from off-site sample locations along Thomas Creek. Samples were collected downstream (west) of 80 Lyndon Road. Data is reported in Table 3B, but not included in BCP Summary Table 3.
d/PFAS Groundwater Quality Screening Values from *Sampling, Analysis, and Assessmetn of Per- and Polyfluoroalkyl Substances (PFAS). NYSDEC. April 2023*
U = not detected above reporting limit shown.
J= estimated value. Results above MDL but below RL.
mg/L = milligrams per liter; ug/L = micrograms per liter; mg/kg = milligrams per kilogram; ug/kg = micrograms per kilograms; ug/g = micrograms per gram; btu/lb = british thermal units per pound.
"-" denotes absence of a proposed standard or sample was not analyzed for corresponding analyte.
"*" Minimum detection limit is higher than guidance value.
Bold value = compound is detected.
Bold with red highlight = compound exceeds Class GA Ambient Water Quality Standards

Data reported from Site Characterization For Lyndon Road Landfill (Ramboll, 2023).

Table 4
2020 Ground Water Data
2020 Field Activities Summary Report (Parsons, 2020)
80 Lyndon Road
Fairport, New York

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-01 (8-MON-009-003-01)		MW-02 (8-MON-009-002-01)		MW-03 (8-MON-009-004-01)		MW-04 (8-MON-009-003-03)	
Sample Date:			8/19/2020		8/18/2020		8/20/2023		8/19/2020	
Sample Matrix:			Ground Water		Ground Water		Ground Water		Ground Water	
TCL VOCs 8260D										
Acetone	50	ug/l	<12	U	<15	U	<30	U	<12	U
Benzene	1	ug/l	<1.6	U	<2.1	U	<4.1	U	<1.6	U
Bromochloromethane	5	ug/l	<1.6	U	<2.0	U	<4.1	U	<1.6	U
Bromodichloromethane	50	ug/l	<1.6	U	<2.0	U	<3.9	U	<1.6	U
Bromoform	50	ug/l	<1.0	U	<1.3	U	<2.6	U	<1.0	U
Bromomethane	5	ug/l	<2.8	U	<3.5	U	<6.9	U	<2.8	U
2-Butanone (MEK)	50	ug/l	<5.3	U	<6.6	U	<13	U	<5.3	U
Carbon disulfide	60	ug/l	<0.76	U	<0.95	U	<1.9	U	<0.76	U
Carbon tetrachloride	5	ug/l	<1.1	U	<1.4	U	<2.7	U	<1.1	U
Chlorobenzene	5	ug/l	<3.0	U	<3.8	U	16		<3.0	U
Chloroethane	5	ug/l	<1.3	U	<1.6	U	<3.2	U	<1.3	U
Chloroform	7	ug/l	<1.4	U	<1.7	U	<3.4	U	<1.4	U
Chloromethane	5	ug/l	<1.4	U	<1.8	U	<3.5	U	<1.4	U
Cyclohexane	-	ug/l	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane	0.04	ug/l	<1.6	U	<2.0	U	<3.9	U	<1.6	U
Dibromochloromethane	50	ug/l	<1.3	U	<1.6	U	<3.2	U	<1.3	U
1,2-Dibromoethane	0.0006	ug/l	<2.9	U	<3.7	U	<7.3	U	<2.9	U
1,2-Dichlorobenzene	3	ug/l	<3.2	U	<4.0	U	<7.9	U	<3.2	U
1,3-Dichlorobenzene	3	ug/l	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	3	ug/l	<3.4	U	<4.2	U	<8.4	U	<3.4	U
Dichlorodifluoromethane	5	ug/l	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	ug/l	<1.2	U	<1.9	U	<3.8	U	<1.2	U
1,2-Dichloroethane	0.6	ug/l	<0.84	U	<1.1	U	<2.1	U	<0.84	U
1,1-Dichloroethene	5	ug/l	<1.2	U	<1.5	U	<2.9	U	<1.2	U
cis-1,2-Dichloroethene	5	ug/l	<3.2	U	<4.1	U	<8.1	U	<3.2	U
trans-1,2-Dichloroethene	5	ug/l	<3.6	U	<4.5	U	<9.0	U	<3.6	U
1,2-Dichloropropane	1	ug/l	<2.9	U	<3.6	U	<7.2	U	<2.9	U
cis-1,3-Dichloropropene	0.4	ug/l	<1.4	U	<1.8	U	<3.6	U	<1.4	U
trans-1,3-Dichloropropene	0.4	ug/l	<1.5	U	<1.9	U	<3.7	U	<1.5	U
Ethylbenzene	5	ug/l	<3.0	U	<3.7	U	<7.4	U	6	
Freon 113	-	ug/l	-	-	-	-	-	-	-	-
2-Hexanone	50	ug/l	<5.0	U	<6.2	U	<12	U	<5.0	U
Isopropylbenzene	5	ug/l	-	-	-	-	-	-	-	-
Methyl Acetate	-	ug/l	-	-	-	-	-	-	-	-
Methylcyclohexane	-	ug/l	-	-	-	-	-	-	-	-
Methyl Tert Butyl Ether	10	ug/l	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (MIBK)	-	ug/l	<8.4	U	<11	U	<21	U	<8.4	U
Methylene chloride	5	ug/l	<1.8	U	<2.2	U	<4.4	U	<1.8	U
Styrene	5	ug/l	<2.9	U	<3.7	U	<7.3	U	<2.9	U
1,1,2,2-Tetrachloroethane	5	ug/l	<0.84	U	<1.1	U	<2.1	U	<0.84	U
Tetrachloroethene	5	ug/l	<1.4	U	<1.8	U	<3.6	U	<1.4	U
Toluene	5	ug/l	<2.0	U	<2.6	U	<5.1	U	<2.0	U
1,2,3-Trichlorobenzene	5	ug/l	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	5	ug/l	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	5	ug/l	<3.3	U	<4.1	U	<8.2	U	<3.3	U
1,1,2-Trichloroethane	1	ug/l	<1.4	U	<1.2	U	<2.3	U	<1.4	U
Trichloroethene	5	ug/l	<1.8	U	<2.3	U	<4.6	U	<1.8	U
Trichlorofluoromethane	5	ug/l	<3.5	U	<4.4	U	<8.8	U	<3.5	U
Vinyl chloride	2	ug/l	<3.6	U	<4.5	U	<9.0	U	<3.6	U
m,p-Xylene	5	ug/l	<2.6	U	<3.3	U	<6.6	U	<2.6	U
o-Xylene	5	ug/l	<3.0	U	<3.8	U	<7.6	U	<3.0	U
Xylene (Total)	-	ug/l	<2.6	U	<3.3	U	<7.6	U	<2.6	U
TCL SVOCs 8270D PAH										
Acenaphthene	20	ug/l	2.8		<0.30	U	1.6		0.41	J
Acenaphthylene	-	ug/l	<0.34	U	<0.34	U	<0.34	U	<0.34	U
Acetophenone	-	ug/l	<0.39	U	<0.39	U	<0.39	U	<0.39	U
Benzo(a)anthracene	0.002	ug/l	<0.40	U	<0.40	U	<0.40	U	<0.40	U
Benzo(a)pyrene	-	ug/l	<0.33	U	<0.33	U	<0.33	U	<0.33	U
Benzo(b)fluoranthene	0.002	ug/l	<0.30	U	<0.30	U	<0.30	U	<0.30	U
Benzo(g,h,i)perylene	-	ug/l	<0.37	U	<0.37	U	<0.37	U	<0.37	U
Benzo(k)fluoranthene	0.002	ug/l	<0.085	U	<0.085	U	<0.085	U	<0.085	U
Chrysene	0.002	ug/l	<0.32	U	<0.32	U	<0.32	U	<0.32	U
Dibenzo(a,h)anthracene	-	ug/l	<0.33	U	<0.33	U	<0.33	U	<0.33	U
Fluoranthene	50	ug/l	<0.36	U	<0.36	U	<0.36	U	<0.36	U
Indeno(1,2,3-cd)pyrene	0.002	ug/l	<0.44	U	<0.44	U	<0.44	U	<0.44	U
Phenanthrene	50	ug/l	<0.38	U	<0.38	U	0.51		1.2	
Pyrene	50	ug/l	<0.36	U	<0.36	U	<0.36	U	<0.36	U
1,2,4,5-Tetrachlorobenzene	-	ug/l	-	-	-	-	-	-	-	-

Table 4
2020 Ground Water Data
2020 Field Activities Summary Report (Parsons, 2020)
80 Lyndon Road
Fairport, New York

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-01 (8-MON-009-003-01)		MW-02 (8-MON-009-002-01)		MW-03 (8-MON-009-004-01)		MW-04 (8-MON-009-003-03)	
Sample Date:			8/19/2020		8/18/2020		8/20/2023		8/19/2020	
Sample Matrix:			Ground Water		Ground Water		Ground Water		Ground Water	
TCL SVOCs 8270E										
1,4-Dioxane	0.35	ug/l	2.2	E	43	E	14	E	2	E
Total Metals 6010C										
Aluminum	-	ug/l	<0.000060	U	0.00025		<0.000060	U	0.00064	
Antimony	3	ug/l	<0.0000068	U	<0.0000068	U	<0.0000068	U	<0.0000068	U
Arsenic	25	ug/l	<0.0000056	U	0.000011	J	<0.0000056	U	<0.0000056	U
Barium	1000	ug/l	0.0017		0.00032		0.0015		0.00027	
Beryllium	-	ug/l	<0.0000020	U	<0.0000020	U	<0.0000020	U	<0.0000030	
Cadmium	5	ug/l	<0.000000050	U	<0.000000050	U	<0.000000050	U	<0.000000050	
Calcium		ug/l	0.269		0.268		0.256		0.438	
Chromium	50	ug/l	0.0000018	J	0.0000013	J	0.000002	J	0.0000026	J
Cobalt	-	ug/l	<0.0000040	U	0.0000026	J	0.0000017	J	<0.000000063	
Copper	200	ug/l	0.0000019	J	<0.000010	U	<0.0000016	U	0.0000032	J
Iron	300	ug/l	0.0035		0.013		0.0056		0.00183	
Lead	25	ug/l	0.0000034	J	<0.000010	U	<0.0000030	U	<0.0000030	
Magnesium	35000	ug/l	0.177		0.216		0.177		0.137	
Manganese	300	ug/l	0.00054		0.0001		0.00021	B	0.055	
Mercury (Method SW846 7470A)	0.7	ug/l	<0.000000012	U	<0.000000012	U	<0.000000012	U	<0.000000012	
Nickel	100	ug/l	<0.0000013	U	0.0000063	J	0.0000023	J	0.0000014	J
Potassium	-	ug/l	0.0401		0.0453		0.0372		0.0184	
Selenium	10	ug/l	<0.0000087	U	<0.0000087	U	<0.0000087	U	<0.0000087	
Silver	50	ug/l	<0.0000060	U	<0.0000060	U	<0.0000060	U	<0.0000060	
Sodium	20000	ug/l	0.153		<0.182		0.0783		0.0786	
Thallium	0.5	ug/l	<0.00020	U	<0.00020	U	<0.000010	U	<0.000010	
Vanadium	-	ug/l	<0.0000050	U	<0.0000050	U	0.0000032	J	0.0000045	J
Zinc	2000	ug/l	<0.00010	U	<0.00010	U	0.000002	J	0.0000048	J
PFAS (Method 537)										
Perfluorobutanoic Acid (PFBA)	-	ng/l	330		1100		1200		320	
Perfluoropentanoic Acid (PFPeA)	-	ng/l	100		250		120		94	
Perfluorobutanesulfonic Acid (PFBS)	-	ng/l	99	J	71	B	31	B	24	B
Perfluorohexanoic Acid (PFHxA)	-	ng/l	200		540		190		140	
Perfluoroheptanoic Acid (PFHpA)	-	ng/l	190		350		120		94	
Perfluorohexanesulfonic Acid (PFHxS)	-	ng/l	180		100		49		43	
Perfluorooctanoic Acid (PFOA)	6.7	ng/l	4,800		8,100		1,500		740	
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	-	ng/l	<4.9		<2.5	U	<5.0	U	<4.7	U
Perfluoroheptanesulfonic Acid (PFHpS)	-	ng/l	13		4.8		7		5.5	
Perfluorononanoic Acid (PFNA)	-	ng/l	10		5.8		7.8		5.6	
Perfluorooctanesulfonic Acid (PFOS)	2.7	ng/l	290		62		170		200	
Perfluorodecanoic Acid (PFDA)	-	ng/l	2		<0.67	U	1	J	0.84	J
1H,1H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	-	ng/l	<2.6		<4.8	U	<2.6	U	<2.5	U
N-Methyl Perfluorooctanesulfonamidoacetic Acid	-	ng/l	6.3	J	<1.5	U	21		<1.5	U
Perfluoroundecanoic Acid (PFUnA)	-	ng/l			<0.68	U	<0.71	U	<0.67	U
Perfluorodecanesulfonic Acid (PFDS)	-	ng/l	<0.80	U	<0.79	U	<0.81	U	<0.77	U
Perfluorooctanesulfonamide (FOSA)	-	ng/l			<8.8	U	<0.91	U	<8.6	U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	-	ng/l	38		4	J	63		2.5	J
Perfluorododecanoic Acid (PFDoA)	-	ng/l	<0.52		<0.52	U	<1.8	U	<0.50	U
Perfluorotridecanoic Acid (PFTrDA)	-	ng/l	<0.53		<0.53	U	<0.54	U	<0.51	U
Perfluorotetradecanoic Acid (PFTA)	-	ng/l	<0.81		<0.81	U	<0.83	U	<0.54	U

Notes:
d//PFAS Groundwater Quality Screening Values from *Sampling, Analysis, and Assessmetn of Per- and Polyfluoroalkyl Substances (PFAS). NYSDEC. April 2023*

U = not detected above reporting limit shown.
B = Compound was detected in the blank and sample.
J= estimated value. Results above MDL but below RL.
mg/L = milligrams per liter; ug/L = micrograms per liter; mg/kg = milligrams per kilogram; ug/kg = micrograms per kilograms; ug/g = micrograms per gram; btu/lb = british thermal units per pound.

"-" denotes absence of a proposed standard or sample was not analyzed for corresponding analyte.
"+"Minimum detection limit is higher than guidance value.
Bold value = compound is detected.
Bold with red highlight = compound exceeds Class GA Ambient Water Quality Standards
Data reported from Site Characterization For Field Activities Summary Report (Parsons, 2020)

Table 4A
Ground Water Data
2023 Site Characterization for Lyndon Road Landfill
80 Lyndon Road
Fairport, New York

Analyte	Class GA Ambient Water Quality Standards and Guidance Values	Units	LR-MW05-032123		LR-MW03-032123		LR-MW06-032223		LR-MW07-032223		LR-MW02-032223		LR-MW04-032223		LR-MW01-032223	
	Sample Date:		3/21/2023		3/21/2023		3/22/2021		3/22/2023		3/22/2023		3/22/2023		3/22/2023	
	Matrix:		Ground Water		Ground Water		Ground Water		Ground Water		Ground Water		Ground Water		Ground Water	
PFAS (1633)																
Perfluorobutanesulfonic acid (PFBS)	-	ng/l	<0.95	U	24.5		<1.1	U	<0.99	U	49		15.5		53	
Perfluoropentanesulfonic acid	-	ng/l	<1.1	U	19.9		<1.2	U	<1.1	U	44.1		17		66.1	
Perfluorohexanesulfonic acid (PFHxS)	-	ng/l	1.1	J	46.7		<1.1	U	<0.99	U	73.8		29.7		183	
Perfluoroheptanesulfonic acid (PFHpS)	-	ng/l	<0.95	U	11.9		<1.1	U	<0.99	U	7.1		3.3		41.1	
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	3.8		194		2.2		<0.99	U	36.7		37.6		847	
Perfluorononanesulfonic acid	-	ng/l	<0.95	U	<0.96	U	<1.1	U	<0.99	U	<1.0	U	<0.98	U	<0.99	U
Perfluorodecanesulfonic acid (PFDS)	-	ng/l	<0.95	U	<0.96	U	<1.1	U	<0.99	U	<1.0	U	<0.98	U	<0.99	U
Perfluoododecanesulfonic acid	-	ng/l	<1.1	U	<1.1	U	<1.2	U	<1.1	U	<1.2	U	<1.1	U	<1.1	U
Perfluorobutanoic Acid	-	ng/l	156		679		107		<4.0	U	912		453		272	
Perfluoropentanoic Acid (PFPeA)	-	ng/l	5.5		104		<1.1	U	<0.99	U	154		64.6		84.1	
Perfluorohexanoic acid (PFHxA)	-	ng/l	11.3		114		1	J	<0.50	U	308		71.2		130	
Perfluoroheptanoic acid (PFHpA)	-	ng/l	2.6		78.2		<0.54	U	<0.50	U	275		60.6		174	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	24		1,230		3.4		<0.50	U	5,470		1,070		4,100	
Perfluorononanoic acid (PFNA)	-	ng/l	<0.58	U	9.7		<0.66	U	<0.60	U	7.9		2.2		24.8	
Perfluorodecanoic acid (PFDA)	-	ng/l	<0.48	U	0.83	J	<0.54	U	<0.50	U	<0.51	U	<0.49	U	3	
Perfluoroundecanoic Acid (PFUnA)	-	ng/l	<0.57	U	<0.58	U	<0.65	U	<0.59	U	<0.61	U	<0.59	U	2.4	
Perfluorododecanoic acid (PFDoA)	-	ng/l	<0.57	U	<0.58	U	<0.65	U	<0.59	U	<0.61	U	<0.59	U	<0.59	U
Perfluorotridecanoic Acid (PFTriA/PFTrDA)	-	ng/l	<0.80	U	<0.81	U	<0.91	U	<0.83	U	<0.85	U	<0.83	U	<0.83	U
Perfluorotetradecanoic acid (PFTA)	-	ng/l	<0.48	U	<0.48	U	<0.54	U	<0.50	U	<0.51	U	<0.49	U	<0.49	U
4:2 Fluorotelomer sulfonate	-	ng/l	<3.8	U	<38	U	<4.3	U	<4.0	U	<40	U	<20	U	<39	U
6:2 Fluorotelomer sulfonate	-	ng/l	<3.8	U	<38	U	<4.3	U	<4.0	U	<40	U	<20	U	<39	U
8:2 Fluorotelomer sulfonate	-	ng/l	<3.9	U	<20	U	<4.5	U	<4.1	U	<42	U	<4.0	U	<4.1	U
PFOSA	-	ng/l	<0.95	U	1.6	J	<1.1	U	<0.99	U	<1.0	U	<0.98	U	1.8	J
MeFOSA	-	ng/l	<0.95	U	<0.96	U	<1.1	U	<0.99	U	<1.0	U	<0.98	U	<0.99	U
EtFOSA	-	ng/l	<0.95	U	<0.96	U	<1.1	U	<0.99	U	<1.0	U	<0.98	U	<0.99	U
MeFOSAA	-	ng/l	<0.95	U	13.9		<1.1	U	<0.99	U	<1.0	U	<0.98	U	7	
EtFOSAA	-	ng/l	1.3	J	51.8		<1.4	U	<1.3	U	4.2		<1.3	U	59	
MeFOSE	-	ng/l	<9.5	U	<9.6	U	<11	U	<9.9	U	<10	U	<9.8	U	<9.9	U
EtFOSE	-	ng/l	<9.5	U	<9.6	U	<11	U	<9.9	U	<10	U	<9.8	U	<9.9	U
HPFO-DA (GenX)	-	ng/l	<1.9	U	<1.9	U	<2.2	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U
ADONA	-	ng/l	<1.9	U	<1.9	U	<2.2	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U
PFMPA	-	ng/l	<0.95	U	<0.96	U	<1.1	U	<0.99	U	<1.0	U	<0.98	U	<0.99	U
PFMBA	-	ng/l	<1.1	U	<1.1	U	<1.2	U	<1.1	U	<1.2	U	<1.1	U	<1.1	U
NFDHA	-	ng/l	<1.1	U	<1.2	U	<1.3	U	<1.2	U	<1.2	U	<1.2	U	<1.2	U
9Cl-PF3ONS (F-53B Major)	-	ng/l	<1.9	U	<1.9	U	<2.2	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U
11Cl-PF3OUdS (F-53B Minor)	-	ng/l	<1.9	U	<1.9	U	<2.2	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U
PFEESA	-	ng/l	<0.95	U	<0.96	U	<1.1	U	<0.99	U	<1.0	U	<0.98	U	<0.99	U
3:3 Fluorotelomer carboxylate	-	ng/l	<4.8	U	<4.8	U	<5.4	U	<5.0	U	<5.1	U	<4.9	U	<4.9	U
5:3 Fluorotelomer carboxylate	-	ng/l	<9.5	U	<9.6	U	<11	U	<9.9	U	53.7		<9.8	U	<9.9	U
7:3 Fluorotelomer carboxylate	-	ng/l	<9.5	U	<48	U	<11	U	<9.9	U	<10	U	<9.8	U	<9.9	U

Notes:
PFAS Groundwater Quality Screening Values from *Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS). NYSDEC. April 2023*

U = not detected above reporting limit shown.
J= estimated value. Results above MDL but below RL.
mg/L = milligrams per liter; ug/L = micrograms per liter; mg/kg = milligrams per
"-" denotes absence of a proposed standard or sample was not analyzed for corresponding analyte.
"**Minimum detection limit is higher than guidance value.
Bold value = compound is detected.
Bold with red highlight = compound exceeds Class GA Ambient Water Quality Standards
Data reported from Site Characterization For Lyndon Road Landfill (Ramboll, 2023).

Table 5
Discovered Drum Data
2023 Site Characterization for Lyndon Road Landfill
85 Lyndon Road
Fairport, New York

Analytes	State GA Ambient Water Quality Standards and Guidance Values	Units	LR DRUMWC_022423	
		Sample Date:	2/24/2023	
	Sample Description:		Contents from discovered drum	
TCL VOCs 8260D				
Acetone	50	ug/l	17.8	
Benzene	1	ug/l	<0.43	U
Bromochloromethane	5	ug/l	<0.48	U
Bromodichloromethane	50	ug/l	<0.45	U
Bromoform	50	ug/l	<0.63	U
Bromomethane	10	ug/l	<1.0	U
2-Butanone (MEK)	50	ug/l	3.8	J
Carbon disulfide	60	ug/l	<0.46	U
Carbon tetrachloride	5	ug/l	<0.55	U
Chlorobenzene	5	ug/l	<0.56	U
Chloroethane	5	ug/l	<0.73	U
Chloroform	7	ug/l	<0.50	U
Chloromethane	3	ug/l	<0.78	U
Cyclohexane	-	ug/l	<0.78	U
1,2-Dibromo-3-chloropropane	0.04	ug/l	<0.53	U
Dibromochloromethane	50	ug/l	<0.56	U
1,2-Dibromoethane	0.0006	ug/l	<0.48	U
1,2-Dichlorobenzene	3	ug/l	<0.53	U
1,3-Dichlorobenzene	3	ug/l	<0.54	U
1,4-Dichlorobenzene	3	ug/l	<0.54	U
Dichlorodifluoromethane	5	ug/l	<0.56	U
1,1-Dichloroethane	5	ug/l	<0.57	U
1,2-Dichloroethane	0.6	ug/l	<0.60	U
1,1-Dichloroethene	5	ug/l	<0.59	U
cis-1,2-Dichloroethene	5	ug/l	<0.51	U
trans-1,2-Dichloroethene	5	ug/l	<0.54	U
1,2-Dichloropropane	1	ug/l	<0.61	U
cis-1,3-Dichloropropene	0.4	ug/l	<0.47	U
trans-1,3-Dichloropropene	0.4	ug/l	<0.47	U
Ethylbenzene	5	ug/l	21.5	
Freon 113	-	ug/l	<0.58	U
2-Hexanone	50	ug/l	<2.0	U
Isopropylbenzene	5	ug/l	<0.65	U
Methyl Acetate	-	ug/l	<0.80	U
Methylcyclohexane	-	ug/l	<0.60	U
Methyl Tert Butyl Ether	10	ug/l	<0.83	U
4-Methyl-2-pentanone (MIBK)	-	ug/l	<1.3	U
Methylene chloride	5	ug/l	<1.0	U
Styrene	5	ug/l	<0.49	U
1,1,2,2-Tetrachloroethane	5	ug/l	<0.65	U
Tetrachloroethene	5	ug/l	<0.56	U
Toluene	5	ug/l	84.3	
1,2,4-Trichlorobenzene	5	ug/l	<0.60	U
1,1,2-Trichlorobenzene	5	ug/l	<0.60	U
1,1,1-Trichloroethane	5	ug/l	<0.54	U
1,1,2-Trichloroethane	1	ug/l	<0.53	U
Trichloroethene	5	ug/l	<0.53	U
Trichlorofluoromethane	5	ug/l	<0.40	U
Vinyl chloride	2	ug/l	<0.52	U
m,p-Xylene	5	ug/l	84.7	
o-Xylene	5	ug/l	44.7	
Xylene (Total)	-	ug/l	169	
TCL SVOCs 8270E				
4-Chloroaniline	1	ug/l	<0.92	U
4-Chloro-3-methyl phenol	1	ug/l	<0.69	U
2,4-Dichlorophenol	1	ug/l	<1.3	U
2,4-Dimethylphenol	1	ug/l	2.8	J
4,6-Dinitro-2-methyl	1	ug/l	<1.3	U
4,6-Dinitro-o-cresol	1	ug/l	<1.3	U
2-Methylphenol (O-Cresol)	1	ug/l	0.92	J
3&4-Methylphenol (Cresols M & P)	-	ug/l	1.3	J
2-Nitrophenol	1	ug/l	<0.96	U
4-Nitrophenol	1	ug/l	<1.2	U
Pentachlorophenol	1	ug/l	<1.4	U
Phenol	1	ug/l	1.1	J
2,3,4,6-Tetrachlorophenol	-	ug/l	<1.5	U
2,4,5-Trichlorophenol	1	ug/l	<1.3	U
2,4,6-Trichlorophenol	1	ug/l	<0.92	U
Acenaphthene	20	ug/l	<0.19	U
Acenaphthylene	-	ug/l	<0.16	U
Anthracene	-	ug/l	0.39	J
Benzidine	50	ug/l	<0.45	U
Benzaldehyde	-	ug/l	<0.45	U
Benzo(a)anthracene	0.002	ug/l	<0.20	U
Benzo(a)pyrene	-	ug/l	<0.21	U
Benzo(b)fluoranthene	0.002	ug/l	<0.21	U
Benzo(g,h,i)perylene	-	ug/l	<0.24	U
Benzo(k)fluoranthene	0.002	ug/l	<0.21	U
Bis(2-chloroethyl) phenyl ether	-	ug/l	<0.40	U
Bis(2-ethylhexyl)phthalate	50	ug/l	1.5	J
1,1'-Biphenyl	-	ug/l	<0.21	U
2-Chloronaphthalene	10	ug/l	<0.24	U
4-Chloroaniline	5	ug/l	<0.34	U
Carbazole	-	ug/l	<0.23	U
Caprolactam	-	ug/l	<0.65	U
Chrysene	0.002	ug/l	<0.18	U
Bis(2-Chloroethoxy)methane	5	ug/l	<0.39	U
bis(2-Chloroethyl)ether	1	ug/l	<0.20	U
2,2'-Oxybis(1-chloropropane)	5	ug/l	<0.40	U
4-Chlorophenyl phenyl ether	-	ug/l	<0.37	U
2,4-Dinitrotoluene	5	ug/l	<0.65	U
2,6-Dinitrotoluene	5	ug/l	<0.48	U
1,3'-Dichlorobenzidine	5	ug/l	<0.51	U
Dibenzofuran	0.05	ug/l	0.29	J
Dibenz(a,h)anthracene	-	ug/l	<0.33	U
Dibenzofuran	-	ug/l	<0.22	U
Di-n-butyl phthalate	50	ug/l	9.4	B
Di-n-octyl phthalate	50	ug/l	<0.23	U
Diethyl phthalate	50	ug/l	<0.26	U
Dimethyl phthalate	50	ug/l	<0.22	U
bis(2-Ethylhexyl)phthalate	5	ug/l	<1.7	U
Fluoranthene	50	ug/l	<0.17	U
Fluorene	50	ug/l	<0.19	U
Hexachlorobenzene	0.04	ug/l	<0.33	U
Hexachlorobutadiene	0.5	ug/l	<0.49	U
Hexachlorocyclopentadiene	5	ug/l	<2.0	U
Hexachloroethane	5	ug/l	<0.39	U
Indeno(1,2,3-cd)pyrene	0.002	ug/l	<0.33	U
Isophorone	50	ug/l	<0.28	U
2-Methylnaphthalene	-	ug/l	<0.20	U
2-Nitroaniline	5	ug/l	<0.28	U
3-Nitroaniline	5	ug/l	<0.39	U
4-Nitroaniline	5	ug/l	<0.44	U
Naphthalene	10	ug/l	<0.23	U
Nitrobenzene	0.4	ug/l	<0.64	U
N-Nitroso-di-n-propylamine	-	ug/l	<0.48	U
N-Nitrosodiphenylamine	50	ug/l	<0.19	U
Pentachlorophenol	50	ug/l	<0.33	U
Pyrene	50	ug/l	<0.22	U
1,2,4,5-Tetrachlorobenzene	-	ug/l	<0.37	U

Table 5
Discovered Drum Data
2023 Site Characterization for Lyndon Road Landfill
801 Lyndon Road
Fairport, New York

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	LR DRUMWC_032423	
		Sample Date:	3/24/2023	
		Sample Description:	Contents from discovered drum	
TIC (VOCs 8270C				
1,4-Dioxane	0.35	ug/l	3.3	
Pesticides 8151A				
2,4-D	50	ug/l	<0.13	U
2,4,5-TP (Silvex)	0.26	ug/l	<0.031	U
2,4,5-T	35	ug/l	<0.027	U
Dalapon	-	ug/l	<0.038	U
Dicamba	0.44	ug/l	<0.027	U
Dichloroprop	-	ug/l	<0.067	U
Dinoseb	1	ug/l	<0.068	U
MCPA	0.44	ug/l	<17	U
MCPP	-	ug/l	<16	U
Pentachlorophenol	1	ug/l	<0.026	U
2,4-DB	-	ug/l	<0.22	U
Pesticides 8081B				
Aldrin	-	ug/l	<0.0043	U
alpha-BHC	0.01	ug/l	<0.0042	U
beta-BHC	0.04	ug/l	<0.0064	U
delta-BHC	0.04	ug/l	<0.0053	U
gamma-BHC(Lindane)	0.05	ug/l	<0.0048	U
alpha-Chlordane	-	ug/l	<0.00039	U
gamma-Chlordane	-	ug/l	<0.0034	U
4,4'-DDD	0.004	ug/l	<0.0046	U
4,4'-DDE	0.3	ug/l	<0.0046	U
4,4'-DDE	0.2	ug/l	<0.0060	U
4,4'-DDT	0.2	ug/l	<0.00055	U
Dieldrin	-	ug/l	<0.0048	U
Endosulfan sulfate	-	ug/l	<0.00044	U
Endrin aldehyde	5	ug/l	<0.0054	U
Endosulfan I	5	ug/l	<0.0042	U
Endosulfan-I	-	ug/l	<0.0042	U
Endosulfan-II	-	ug/l	<0.0039	U
Heptachlor	0.04	ug/l	<0.0036	U
Heptachlor epoxide	0.02	ug/l	<0.0048	U
Methoxychlor	35	ug/l	<0.0054	U
Toxaphene	0.06	ug/l	<0.13	U
TIC (PCBs				
Aroclor 1016	-	ug/l	<0.16	U
Aroclor 1221	-	ug/l	<0.16	U
Aroclor 1232	-	ug/l	<0.21	U
Aroclor 1242	-	ug/l	<0.18	U
Aroclor 1248	-	ug/l	<0.10	U
Aroclor 1254	-	ug/l	<0.10	U
Aroclor 1260	-	ug/l	<0.12	U
Aroclor 1262	-	ug/l	<0.12	U
Aroclor 1268	-	ug/l	<0.15	U
Total PCBs	0.09	ug/l	<0.16	-
Total Metals SW846 3010A				
Aluminum	-	ug/l	<200	
Antimony	3	ug/l	<10	U
Arsenic	25	ug/l	<10	U
Barium	1000	ug/l	216	
Beryllium	-	ug/l	1.3	
Cadmium	5	ug/l	<3.0	U
Calcium	-	ug/l	278000	
Chromium	50	ug/l	<10	U
Cobalt	-	ug/l	<10	U
Copper	200	ug/l	<10	U
Iron	300	ug/l	8230	
Lead	25	ug/l	<10	U
Magnesium	35000	ug/l	97500	
Manganese	300	ug/l	645	
Mercury (Method SW846 7470A)	0.7	ug/l	<0.20	U
Nickel	100	ug/l	<10	U
Potassium	-	ug/l	39600	
Selenium	10	ug/l	<10	U
Silver	50	ug/l	<10	U
Sodium	20000	ug/l	89300	
Thallium	0.5	ug/l	<50	U
Vanadium	-	ug/l	<50	U
Zinc	2000	ug/l	<20	U
General Chemistry				
pH	-	S.U.	7.49	
Reactive Cyanide	-	mg/l	<10	U
Ignitability (Flashpoint)	-	Deg. F	>200	
Reactive Sulfide	-	mg/l	<100	U

Notes:
U = not detected above reporting limit shown.
J= estimated value. Results above MDL but below RL.
mg/L = milligrams per liter; ug/L = micrograms per liter; mg/kg = milligrams per kilogram; ug/kg = micrograms per kilogram; ug/g = micrograms per gram; Btu/lb= British thermal units per pound.
"-" = denotes absence of a proposed standard or sample was not analyzed for corresponding analyte.
Bold value = compound is detected above than guidance value.
Bold value = compound is detected.
Bold with red highlight = compound exceeds Class GA Ambient Water Quality Standards
Data reported from Site Characterization For Lyndon Road Landfill (Ramboll, 2023).

Table 5A
Document Book 5ABS
2023 Site Characterisation Report Longdon Road Landfill
BH Longdon Road
Rugeley, Staffordshire

Analytes	Comparative Standards (Part 376)					Sample ID	BH1	BH1	BH2	BH2
						Sample Description	Drum Sample	Drum Sample	Drum Sample	Drum Sample
	GAC CLEA	Residential Groundwater	Residential Soil	Commercial	Industrial	Date	5/04/2023	5/04/2023	5/04/2023	5/04/2023
Site Details: 376/20										
Antimony	-	-	-	-	-	mg/kg	-	0.200	0.200	0.200
Arsenic	-	-	-	-	-	mg/kg	-	13.5	19.5	14.6
Asbestos	40	10	10	50	-	mg/kg	-	<1.0	<13.6	<1.0
Barium	620	400	400	10,000	-	mg/kg	-	167	96	59.6
Beryllium	87	7.5	900	2,700	-	mg/kg	-	0.42	42.20	0.3
Cadmium	1.8	0.2	8.0	34	-	mg/kg	-	0.200	0.200	0.200
Carbonate	-	-	-	-	-	mg/kg	-	16,400	21,300	16,900
Chromium	-	-	-	-	-	mg/kg	-	24.2	29	39.2
Cobalt	-	-	-	-	-	mg/kg	-	10.1	8.9	9.1
Copper	1,720	270	270	10,000	-	mg/kg	-	26.3	46	27.5
Lead	-	-	-	-	-	mg/kg	-	38,500	49,600	42,600
Mercury	480	400	1,000	5,800	-	mg/kg	-	0.1	0.1	0.1
Magnesium	-	-	-	-	-	mg/kg	-	6,740	8,650	11,000
Manganese	2,000	2,000	10,000	10,000	-	mg/kg	-	595	468	406
Molybdenum	120	40	40	1,000	-	mg/kg	-	0.4	0.4	0.4
Nickel	530	50	50	10,000	-	mg/kg	-	11.3	20.3	15.6
Potassium	-	-	-	-	-	mg/kg	-	<1,200	<1,200	<1,200
Selenium	6	6	260	1,000	6,800	mg/kg	-	<1.0	<1.0	<1.0
Silver	8.3	340	1,000	6,800	-	mg/kg	-	0.4	<0.4	<0.4
Sodium	-	-	-	-	-	mg/kg	-	<1,200	<1,200	<1,200
Thallium	-	-	-	-	-	mg/kg	-	0.4	0.4	0.4
Vanadium	-	-	-	-	-	mg/kg	-	14.9	15.1	13.9
Zinc	2,400	10,000	10,000	10,000	-	mg/kg	-	209	321	147
General Chemistry: pH										
Total Cyanide (Method: Method 9010B/9014/OIA)	-	-	-	-	-	mg/kg	10.4	<0.5	<0.5	<0.5
Total Cyanide (Method: Method 9010B/9014)	-	-	-	-	-	mg/kg	-	99.0	99.0	99.0
pH (Method: 9045D)	-	-	-	-	-	pH	7.85	7.14	7.58	7.41
Corrosivity as pH (Method: 9045D)	-	-	-	-	-	na	-	7.14 NC	7.58 NC	7.45 NC
Free Cyanide (Calc)	-	-	-	-	-	mg/kg	-	<0.5 U	<0.5 U	<0.5 U
Cyanide Amy Fix (Aqueous)	-	-	-	-	-	mg/l	-	<0.01	<0.01	<0.01
Cyanide: Reactivity (Method 9012B)	-	-	-	-	-	mg/kg	-	<2.0 U	<2.1 U	<2.0 U
Cyanide: Reactivity (Method 9 034-03 MOD.)	-	40	27	27	10,000	mg/kg	-	1.1	0.55	0.56
Analytes in GW (SVOCs, Tables Only)										
1,4- Dichlorobenzene	300		13,000	190,000	260,000	mg/kg	0.000			
Site Details: 376/20										
Aluminium	90	100,000	500,000	1,000,000	-	mg/kg		20,400	24,000	8,000
Benzene	60	4,800	44,000	89,000	-	mg/kg		181	961	181
Bromodichloromethane	-	-	-	-	-	mg/kg		<50 U	<50 U	<50 U
Bromodichloromethane	-	-	-	-	-	mg/kg		<75	<75	<94
Bromoform	-	-	-	-	-	mg/kg		<240 U	<240 U	<290 U
Bromomethane	-	-	-	-	-	mg/kg		<50 U	<50 U	<50 U
1,3-Butanediol (MEK)	120	100,000	500,000	1,000,000	-	mg/kg		84,100	1,100,000	84,000
Carbon disulfide	-	-	-	-	-	mg/kg		<50 U	<50 U	<50 U
Carbon tetrachloride	760	2,000	22,000	44,000	-	mg/kg		<50 U	<50 U	<50 U
Chlorobenzene	1,100	100,000	500,000	1,000,000	-	mg/kg		<50	<77 U	<50
Chloroethane	-	-	-	-	-	mg/kg		<100 U	<99 U	<99 U
Chloroform	370	49,000	350,000	700,000	-	mg/kg		<50 U	<50 U	<50 U
Chloromethane	-	-	-	-	-	mg/kg		<100 U	<250 U	<250 U
Cyclohexane	-	-	-	-	-	mg/kg		326	1	<100 U
1,2-Dibromo-3-chloropropane	-	-	-	-	-	mg/kg		<100 U	<100 U	<100 U
Dibromochloromethane	-	-	-	-	-	mg/kg		<50	<65 U	<50
1,2-Dibromoethane	-	-	-	-	-	mg/kg		<73	<73 U	<83 U
1,2-Dichlorobenzene	1,200	100,000	500,000	1,000,000	-	mg/kg		<50	<50 U	<50
1,3-Dichlorobenzene	2,400	49,000	260,000	500,000	-	mg/kg		<97	<97	<74
1,4-Dichlorobenzene	300	13,000	130,000	260,000	-	mg/kg		127	1	<53
Dichlorodifluoromethane	-	-	-	-	-	mg/kg		<100 U	<100 U	<100 U
1,1-Dichloroethane	210	24,000	240,000	480,000	-	mg/kg		<50	<50 U	<50
1,2-Dichloroethane	20	3,100	30,000	60,000	-	mg/kg		<50	<76 U	<71
1,1-Dichloroethene	1,200	100,000	500,000	1,000,000	-	mg/kg		<50	<50 U	<50
trans-1,2-Dichloroethene	250	-	500,000	1,000,000	-	mg/kg		<100	<140	<139
trans-1,2-Dichloroethene	390	100,000	500,000	1,000,000	-	mg/kg		<110	<100 U	<92
1,2-Dichloropropane	-	-	-	-	-	mg/kg		<50	<50 U	<50
trans-1,3-Dichloropropene	-	-	-	-	-	mg/kg		<83	<76	<71
trans-1,3-Dichloropropene	-	-	-	-	-	mg/kg		<50	<79	<69
Ethanol	1,000	49,000	390,000	780,000	-	mg/kg		13,100	13,100	30,400
Freon 113	-	-	-	-	-	mg/kg		<100 U	<100 U	<100 U
2-Hexanone	-	-	-	-	-	mg/kg		<200	<200 U	<200
Isopropylbenzene	-	-	-	-	-	mg/kg		1,100	1,100	1,100
Methyl Acetate	-	-	-	-	-	mg/kg		1,700	1,700	1,700
Methylcyclohexane	-	-	-	-	-	mg/kg		2,080	361	200
Methyl Tert Butyl Ether	950	100,000	500,000	1,000,000	-	mg/kg		<50	<76	<76
Methyl-2-pentanone (MIBK)	-	-	-	-	-	mg/kg		3,480	13,600	3,040
Methylene Chloride	60	100,000	500,000	1,000,000	-	mg/kg		1,400	1,400	1,400
Styrene	-	-	-	-	-	mg/kg		<73	<97	<83
1,1,2,2- Tetrachloroethane	-	-	-	-	-	mg/kg		<50	<240	<50
Tetrachloroethene	1,300	19,000	150,000	300,000	-	mg/kg		1,100	1,100	1,100
Toluene	700	100,000	500,000	1,000,000	-	mg/kg		16,100	1,100,000	15,100
1,2,3 Trichlorobenzene	-	-	-	-	-	mg/kg		<200	<200 U	<200
1,2,4 Trichlorobenzene	-	-	-	-	-	mg/kg		<200	<200 U	<200
1,1,1-Trichloroethane	660	100,000	500,000	1,000,000	-	mg/kg		<50	<50	<73
1,1,2-Trichloroethane	-	-	-	-	-	mg/kg		<97	<83	<83
Trichloroethene	470	10,000	200,000	400,000	-	mg/kg		<50	<50 U	<50
Trichlorofluoromethane	-	-	-	-	-	mg/kg		<110	<110	<100
Vinyl chloride	20	900	13,000	27,000	-	mg/kg		<50	<50	<72
m-Xylene	1,000	100,000	500,000	1,000,000	-	mg/kg		744,000	1,100,000	744,000
o-Xylene	1,000	100,000	500,000	1,000,000	-	mg/kg		240,000	1,100,000	240,000
Xylene (Total)	-	-	-	-	-	mg/kg		970,000	6,100,000	1,000,000
Site Details: 376/20										
2-Chlorophenol	-	-	-	-	-	mg/kg		<100	<42	<100
2,4-Dichlorophenol phenol	-	-	-	-	-	mg/kg		<100	<100 U	<100
2,4-Dimethylphenol	-	-	-	-	-	mg/kg		<1210	<1210	<97
2,4-Dimethylphenol	-	-	-	-	-	mg/kg		<210	7	<2900
2,4-Dinitrophenol	-	-	-	-	-	mg/kg		<1210	<1210	<1210
2,4-Dinitro-o-cresol	-	-	-	-	-	mg/kg		<1210	<1210	<1210
2-Methylphenol	330	100,000	500,000	1,000,000	-	mg/kg		736	<210	<193
3-Methylphenol	330	100,000	500,000	1,000,000	-	mg/kg		1,200	<210	<193
3,3-Nitrobenzidine	-	-	-	-	-	mg/kg		<1210	<1210	<1210
3-Nitrophenol	-	-	-	-	-	mg/kg		<1000	<1200	<1210
4-Methylphenol	800	9,700	8,700	99,000	-	mg/kg		<1000	<1200	<1210
Phenol	330	100,000	500,000	1,000,000	-	mg/kg		<1000	1,000	<210
2,3,4,6-Tetrachlorophenol	-	-	-	-	-	mg/kg		<1200	<1200	<1210
2,4,5-Trichlorophenol	-	-	-	-	-	mg/kg		<1200	<1200	<1210
2,4,6-Trichlorophenol	-	-	-	-	-	mg/kg		<1200	<1200	<1210
Acenaphthene	160,000	100,000	500,000	1,000,000	-	mg/kg		4,100	3,900	928
Acenaphthylene	107,000	100,000	500,000	1,000,000	-	mg/kg		262	<100	71
Acetophenone	-	-	-	-	-	mg/kg		170	1	400
Anthracene	1,000,000	100,000	500,000	1,000,000	-	mg/kg		1,000	1,000	1,000
Atrazine	-	-	-	-	-	mg/kg		<350	<350	<350
Benz(a)anthracene	1,000	1,000	9,000	11,000	-	mg/kg		40,300	13,200	8,256
Benzo(a)pyrene	1,000	1,000	9,000	11,000	-	mg/kg		40,300	13,200	8,256
Benzo(b)fluoranthene	1,700	1,000	9,000	11,000	-	mg/kg		40,000	13,700	8,256
Benzo(g,h,i)perylene	1,700	100,000	500,000	1,000,000	-	mg/kg		22,000	9,800	5,140
Benzo(k)fluoranthene	1,700	9,900	99,000	110,000	-	mg/kg		40,300	13,200	8,256
1-Benzoylphenyl phenyl ether	-	-	-	-	-	mg/kg		<170	<170	<170
Butyl benzyl phthalate	-	-	-	-	-	mg/kg		<100	<2	<129
Bis(2-chloroethyl)ether	-	-	-	-	-	mg/kg		<100	<100	<129
Bis(2-ethylhexyl)phthalate	-	-	-	-	-	mg/kg		<100	<100	<129
2-Chloronaphthalene	-	-	-	-	-	mg/kg		<97	<2	<129
4-Chlorophenyl phenyl ether	-	-	-	-	-	mg/kg		<97	<97	<129
Carbazole	-	-	-	-	-	mg/kg		8,000	3,610	820
Dibenz(a,h)anthracene	1,000	9,900	99,000	110,000	-	mg/kg		40,300	13,200	8,256
Dibenzofuran	-	-	-	-	-	mg/kg		2,700	1,700	1,000
Di-n-2-Chloroethoxyethane	-	-	-	-	-	mg/kg		<97	<2	<129
Di-n-2-Chloroethylether	-	-	-	-	-	mg/kg		<95	<2	<254
Di-n-butyl phthalate (Dibutyl)	-	-	-	-	-	mg/kg		<97	<97	<129
1,2-Dichlorophenyl phenyl ether	-	-	-	-	-	mg/kg		<93	<93	<129
2,4-Dinitrotoluene	-	-	-	-	-	mg/kg		<81	<2	<254
2,6-Dinitrotoluene	-	-	-	-	-	mg/kg		<97	<97	<129
3,3'-Dichlorobenzidine	-	-	-	-	-	mg/kg		<1000	<1000	<1000
1,4-Dioxane	1,000	13,000	130,000	260,000	-	mg/kg		<150	<150	<150
Diethyl phthalate	1,000	100,000	500,000	1,000,000	-	mg/kg		1,000	1,000	1,000
Dimethoate	13,000	99,000	990,000	1,100,000	-	mg/kg		21,700	2,000	1,000
Di-n-butyl phthalate	-	-	-	-	-	mg/kg		<32	163	98.6
Di-n-octyl phthalate	-	-	-	-	-	mg/kg		<97	<97	<129
Diethyl phthalate	-	-	-	-	-	mg/kg		<97	<97	<129
Dimethyl phthalate	-	-	-	-	-	mg/kg		<81	<2	<129
Diphenylamine/azobenzene	-	-	-	-	-	mg/kg		<97	<97	<129
Fluoranthene	1,000,000	100,000	500,000	1,000,000	-	mg/kg		96,000	34,000	7,100
Fluorene	386,000	100,000	500,000	1,000,000	-	mg/kg		4,200	2,800	618
Hexachlorobenzene	3,000	1,000	9,000	10,000	-	mg/kg		<93	<93	<129
Hexachlorobutadiene	-	-	-	-	-	mg/kg		<79	<2	<129
Hexachlorocyclopentadiene	-	-	-	-	-	mg/kg		<79	<79	<129
Hexachloroethane	-	-	-	-	-	mg/kg		<97	<97	<129
Indeno(1,2,3-cd)pyrene	8,200	900	9,600	11,000	-	mg/kg		31,700	9,100	6,200
Isophorone	-	-	-	-	-	mg/kg		<97	<97	<129
1-Methylnaphthalene	-	-	-	-	-	mg/kg		1,100	900	241
2-Methylnaphthalene	-	-	-	-	-	mg/kg		<97	<48	<129
2-Nitroaniline	-	-	-	-	-	mg/kg		<97	<97	<129
3-Nitroaniline	-	-	-	-	-	mg/kg		<81	<81	<129
Naphthalene	13,000	100,000	500,000	1,000,000	-	mg/kg		3,200	900	2001
Nitrobenzene	-	-	-	-	-	mg/kg		<97	<97	<129
N-Nitroso-di-n-propylamine	-	-	-	-	-	mg/kg		<97	<97	<129
N-Nitrosodiphenylamine	-	-	-	-	-	mg/kg		<72	<72	<129
Pentachlorophenol	1,000,000	100,000	500,000	1,000,000	-	mg/kg		1,000,000	1,000,000	1,000,000
Phenanthrene	1,000,000	100,000	500,000	1,000,000	-	mg/kg		66,000	23,700	7,300
1,2,4,5-Tetrachlorobenzene	-	-	-	-	-	mg/kg		<93	<93	<129

Table 5A
Discovered Drum Solids
2023 Site Characterization for Lyndonhoad Landfill
Bill Lyndon Inc
Hartport, New York

Analytes	Comparative Standards (Part 375)					Sample ID	SS-7704-SYLAB-20230615	SS-7704-SYLAB-20230615-FD	SS-7705-SYLAB-20230615	SS-7706-SYLAB-20230615
						Matrix	Drum Sample	Drum Sample	Drum Sample	Drum Sample
	Unrestricted Use	Residential	Restricted-Residential	Commercial	Industrial	Collection Date	5/16/2023	5/16/2023	5/16/2023	5/16/2023
	Units: TCLP					Units	5/16/2023	5/16/2023	5/16/2023	5/16/2023
Volatiles, 8260B										
1,1,1-TCA	-	-	-	-	-	mg/kg	-	0.002 U	0.001 U	0.001 U
1,1,2,2-TCA (Chlor)	-	0.6	100	500	1,000	mg/kg	-	0.001 U	0.0001 U	0.0001 U
1,1,2-TCA	-	-	-	-	-	mg/kg	-	0.0005 U	0.00005 U	0.00005 U
Dichloroethane	-	-	-	-	-	mg/kg	-	0.001 U	0.0001 U	0.0001 U
Dichloroethene	-	-	-	-	-	mg/kg	-	0.0005 U	0.00007 U	0.00007 U
Dichloropropene	-	-	-	-	-	mg/kg	-	0.0005 U	0.00007 U	0.00007 U
Dioxane-p	-	-	-	-	-	mg/kg	-	0.1 U	0.009 U	0.0083 U
MEK	-	-	-	-	-	mg/kg	-	0.1 U	0.1 U	0.1 U
MIBK	-	-	-	-	-	mg/kg	-	0.1 U	0.1 U	0.1 U
Pentachloroethanol	-	0.8	6.7	6.7	55	mg/kg	-	0.0123	0.0117	0.0098
t,1,2-DE	-	-	-	-	-	mg/kg	-	0.001 U	0.0002 U	0.0001 U
Pesticides, 8081B										
Aldrin	-	0.19	0.019	0.68	6.9	mg/kg	-	0.000082 U	0.000086 U	0.000083 U
Alpha-BHC	-	0.097	0.097	3.4	6.8	mg/kg	-	0.000074 U	0.000078 U	0.000075 U
beta-BHC	-	0.09	0.09	3	12	mg/kg	-	0.000074 U	0.000078 U	0.000075 U
delta-BHC	-	0.25	100	500	1,000	mg/kg	-	0.000079 U	0.000083 U	0.000077 U
Dieldrin (BHC Chlordane)	-	0.1	0.2	1.4	2.8	mg/kg	-	0.000082 U	0.000086 U	0.000083 U
alpha-Chlordane	-	2.9	4.2	24	47	mg/kg	-	0.0159	0.0156	0.0156
gamma-Chlordane	-	-	-	-	-	mg/kg	-	0.0129	0.0167	0.0148
4,4'-DDD	-	0.1	0.2	1.4	2.8	mg/kg	-	0.00124	0.00125	0.00122
4,4'-DDE	-	3.4	8.9	62	120	mg/kg	-	0.00244	0.0025	0.0052
4,4'-DDT	-	3.7	8.9	62	120	mg/kg	-	0.0111	0.000088 U	0.00071 U
Dieldrin	-	0.006	0.14	1.4	2.8	mg/kg	-	0.000082 U	0.000086 U	0.000083 U
Endrin	-	0.06	11	89	100	mg/kg	-	0.000084 U	0.000088 U	0.000085 U
Endrin Ket. nut fore	-	1,000	24	200	500	mg/kg	-	0.000084 U	0.000085 U	0.000083 U
Endrin ketone	-	-	-	-	-	mg/kg	-	0.000082 U	0.000086 U	0.000083 U
Endosulfan-I	-	102	24	200	500	mg/kg	-	0.000067 U	0.000068 U	0.000066 U
Endosulfan-II	-	102	24	200	500	mg/kg	-	0.000061 U	0.000068 U	0.000062 U
Endosulfan-sulf	-	0.39	2.1	10	24	mg/kg	-	0.000084 U	0.000088 U	0.000085 U
Methoxychlor-equivale	-	-	-	-	-	mg/kg	-	0.00014 U	0.0002 U	0.0003 U
Methoxychlor	-	-	-	-	-	mg/kg	-	0.000065 U	0.000068 U	0.000062 U
Toxaphene-toxicene	-	-	-	-	-	mg/kg	-	0.000082 U	0.000086 U	0.000083 U
Toxaphene	-	-	-	-	-	mg/kg	-	0.0134 U	0.0133 U	0.0131 U
Herbicides, 8151A										
2,4,5-TP (Silvex)	-	3.8	1	1	1	mg/kg	-	0.0136 U	0.0133 U	0.0131 U
Dicamba 1251	-	3.2	1	1	1	mg/kg	-	0.13 U	0.0214 U	0.0291 U
Dicamba 1253	-	3.2	1	1	1	mg/kg	-	0.13 U	0.0276 U	0.0291 U
Dicamba 1262	-	3.2	1	1	1	mg/kg	-	0.098 U	0.0105 U	0.0284 U
Dicamba 1254	-	3.2	1	1	1	mg/kg	-	0.13 U	0.0105 U	0.0284 U
Dicamba 1254	-	3.2	1	1	1	mg/kg	-	0.13 U	0.0221 U	0.0227 U
Dicamba 1260	-	3.2	1	1	1	mg/kg	-	0.098 U	0.0217 U	0.0177 U
Dicamba 1262	-	3.2	1	1	1	mg/kg	-	0.13 U	0.0105 U	0.0284 U
Dicamba 1262	-	3.2	1	1	1	mg/kg	-	0.13 U	0.0105 U	0.0284 U
SVOC Volatiles by 8260, 8270C										
1,2-Dichlorobenzene	600	-	-	-	-	ug/l	0.6 U	0.6 U	0.6 U	0.6 U
Dichlorobenzene	1,000,000	-	-	-	-	ug/l	1.3 J	1.2 J	1.2 J	1.2 J
Dichlorobenzene (Para)	13,000	-	-	-	-	ug/l	0.6 U	0.6 U	0.6 U	0.6 U
Carbon Tetrachloride	500	-	-	-	-	ug/l	1.2 U	1.2 U	1.2 U	1.2 U
Chloroform	6,000	-	-	-	-	ug/l	4.2	3.8	2.5 J	3.4
Cresol-p	34,000	-	-	-	-	ug/l	0.6 U	0.6 U	0.6 U	0.6 U
Vinyl Chloride	200	-	-	-	-	ug/l	1.2 U	1.2 U	1.2 U	1.2 U
1,1-Dichloroethane	700	-	-	-	-	ug/l	1.2 U	1.2 U	1.2 U	1.2 U
1,1-Dichloroethene	4,000	-	-	-	-	ug/l	1.2 U	1.2 U	1.2 U	1.2 U
Methyl Ethyl Ketone (2-Butanone)	300,000	-	-	-	-	ug/l	2.6 J	3.3 J	10.000	2.6 J
Trichloroethylene (TCE)	500	-	-	-	-	ug/l	1.2 U	1.2 U	3.4 J	1.2 U
SVOC Volatiles by 8270, 1311										
1,4-Dichlorobenzene	7,500	-	-	-	-	mg/l	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-Trichlorophenol	400,000	-	-	-	-	mg/l	0.25 U	0.25 U	0.25 U	0.25 U
2,4,6-Trichlorophenol	2,000	-	-	-	-	mg/l	0.1 U	0.1 U	0.1 U	0.1 U
2,4-Dinitrotoluene	130	-	-	-	-	mg/l	0.5 U	0.5 U	0.5 U	0.5 U
2-Methylphenol	200,000	-	-	-	-	mg/l	0.1 U	0.1 U	0.1 U	0.1 U
3&4-Methylphenol	200,000	-	-	-	-	mg/l	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobenzene	130	-	-	-	-	mg/l	0.3 U	0.3 U	0.3 U	0.3 U
Hexachlorobutadiene	500	-	-	-	-	mg/l	0.5 U	0.5 U	0.5 U	0.5 U
Hexachloroethane	3,000	-	-	-	-	mg/l	0.5 U	0.5 U	0.5 U	0.5 U
Nitrobenzene	2,000	-	-	-	-	mg/l	0.2 U	0.2 U	0.2 U	0.2 U
Pentachlorophenol	100,000	-	-	-	-	mg/l	0.5 U	0.5 U	0.5 U	0.5 U
Pyridine	5000	-	-	-	-	mg/l	0.5 U	0.5 U	0.5 U	0.5 U
SVOC Volatiles by 8270, 1311										
2,4,5-TP	50	-	-	-	-	mg/l	0.00008 U	0.0001 J	0.00007 J	0.0002 J
2,4-D (Silvex)	70	-	-	-	-	mg/l	0.00008 U	0.00008 U	0.00008 U	0.00008 U
SVOC Volatiles by 8270, 8151										
1,4-Dichlorobenzene	8.0	-	-	-	-	mg/l	0.0000035 U	0.0000035 U	0.0000035 U	0.0000035 U
Chlordane	0.03	-	-	-	-	mg/l	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Endrin	0.02	-	-	-	-	mg/l	0.0000035 U	0.0000035 U	0.0000035 U	0.0000035 U
Heptachlor	0.008	-	-	-	-	mg/l	0.0000035 U	0.0000035 U	0.0000035 U	0.0000035 U
Heptachlor-epoxide	0.008	-	-	-	-	mg/l	0.0000035 U	0.0000035 U	0.0000035 U	0.0000035 U
Methoxychlor	35	-	-	-	-	mg/l	0.0000035 U	0.0000035 U	0.0000035 U	0.0000035 U
Toxaphene	0.5	-	-	-	-	mg/l	0.00021 U	0.0021 U	0.0021 U	0.00021 U
TCLP Metals by EPA 6010										
Arsenic	5	-	-	-	-	mg/l	0.02 U	0.02 U	0.02 U	0.02 U
Barium	100	-	-	-	-	mg/l	0.236	0.27	0.06	0.21
Cadmium	1	-	-	-	-	mg/l	0.0042	0.0053	0.0073	0.0042 U
Chromium	5	-	-	-	-	mg/l	0.01 U	0.01 U	0.01 U	0.01 U
Lead	5	-	-	-	-	mg/l	0.02 U	0.1	0.13	0.02 U
Mercury (Method 7470A)	0.2	-	-	-	-	mg/l	0.00025	0.00025 U	0.00025 U	0.00025 U
Selenium	1	-	-	-	-	mg/l	0.02 U	0.02 U	0.02 U	0.02 U
Silver	5	-	-	-	-	mg/l	0.002 U	0.002 U	0.002 U	0.002 U

Notes:
a) Part 375 Cleanup Standards
b) Part 375 Unrestricted Use SCO
c) PRG Preliminary Remediation Goals
d) PSQ Data Quality Summary Values from Sampling, Analysis, and Assessments of Per- and Polyfluoroalkyl Substances (PFAS). NYSDEC, April 2023
U = not detected above reporting limit shown.
J = estimated value. Per NYSDEC Sampling Guidance Doc.
ug/kg = micrograms per kilogram; ug/l = micrograms per liter; mg/kg = milligrams per kilogram; mg/l = milligrams per liter
ug/g = micrograms per gram; bis/dis = bis/dish dormant units are passed.
"-" denotes detection of a presumed interference sample was not analyzed for some preceding analyte.
Bold = exceedance of the most stringent guidance values.
Bold/italics = compound is detected.
Bold/italics and highlight = compound exceeds Class GA Ambient Water Quality Standards.
Data reported from Site Characterization For Lyndon Road Landfill (Ramboll, 2023).

Table 5B
Discovered Drum Solids
2023 Site Characterization for Lyndon Road Landfill
80 Lyndon Road
Fairport, New York

Analytes	Comparative Standards April 2023 NYS PFAS Guidance			Sample ID:	LR-TT04-DRUM-TOP-031023		LR-TT04-DRUM-BOTTOM-031023		LR-TT04-DRUM-COMP-031023	
	Protection of Groundwater	Restricted Residential	Commercial	Sample Description:	Drumed soils from test pitting, 3/10/2023		Drumed soils from test pitting, 3/10/2023		Drumed soils from test pitting, 3/10/2023	
PFAS (EPA 1633)										
Perfluorobutanoic Acid (PFBA)	-	-	-	ug/kg	<0.63	U	<0.60	U	<0.61	U
Perfluoropentatonic Acid (PFPeA)	-	-	-	ug/kg	0.3	J	<0.12	U	0.16	J
Perfluorohexanoic Acid (PFHxA)	-	-	-	ug/kg	0.27		<0.12	U	0.2	J
Perfluoroheptanoic Acid (PFHpA)	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.12	U
Perfluorooctanoic Acid (PFOA)	0.8	33	500	ug/kg	1.1		0.29		0.56	
Perfluorononanoic Acid (PFNA)	-	-	-	ug/kg	0.17	J	<0.14	U	<0.14	U
Perfluorodecanoic Acid (PFDA)	-	-	-	ug/kg	0.2	J	<0.12	U	<0.12	U
Perfluoroundecanoic Acid (PFUnA)	-	-	-	ug/kg	<0.17	U	<0.16	U	<0.16	U
Perfluorododecanoic Acid (PFDoA)	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.12	U
Perfluorotridecanoic Acid (PFTrDA)	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.12	U
Perfluorotetradecanoic Acid (PFTA)	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.12	U
Perfluorobutanesulfonic Acid (PFBS)	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.12	U
Perfluoropentanesulfonic Acid (PFPeS)	-	-	-	ug/kg	<0.20	U	<0.19	U	<0.19	U
Perfluorohexanesulfonic Acid (PFHxS)	-	-	-	ug/kg	0.58		<0.19	U	<0.19	U
Perfluoroheptanesulfonic Acid (PFHpS)	-	-	-	ug/kg	0.18	J	<0.17	U	<0.18	U
Perfluorooctanesulfonic Acid (PFOS)	1	44	440	ug/kg	28.2		4		9.6	
Perfluorononanesulfonic Acid (PFNS)	-	-	-	ug/kg	<0.23	U	<0.22	U	<0.22	U
Perfluorodecanesulfonic Acid (PFDS)	-	-	-	ug/kg	<0.18	U	<0.17	U	<0.17	U
Perfluorododecanesulfonic Acid	-	-	-	ug/kg	<0.19	U	<0.18	U	<0.18	U
4:2 Fluorotelomer sulfonate	-	-	-	ug/kg	<0.50	U	<0.48	U	<0.49	U
6:2 Fluorotelomer sulfonate	-	-	-	ug/kg	<0.50	U	<0.48	U	<0.49	U
8:2 Fluorotelmoer sulfonate	-	-	-	ug/kg	<0.76	U	<0.72	U	<0.73	U
PFOSA	-	-	-	ug/kg	0.35		<0.12	U	<0.12	U
MeFOSA	-	-	-	ug/kg	<0.17	U	<0.16	U	<0.17	U
EtFOSA	-	-	-	ug/kg	<0.13	U	<0.12	U	<0.12	U
MeFOSAA	-	-	-	ug/kg	<0.20	U	<0.19	U	<0.19	U
EtFOSAA	-	-	-	ug/kg	0.88		<1.2	U	<0.24	U
MeFOSE	-	-	-	ug/kg	<1.3	U	<1.2	U	<1.2	U
EtFOSE	-	-	-	ug/kg	<1.3	U	<1.2	U	<1.2	U
HFPO-DA (GenX)	-	-	-	ug/kg	<0.36	U	<0.34	U	<0.35	U
ADONA	-	-	-	ug/kg	<0.42	U	<0.40	U	<0.41	U
PFMPA	-	-	-	ug/kg	<0.25	U	<0.24	U	<0.24	U
PFMBA	-	-	-	ug/kg	<0.25	U	<0.24	U	<0.24	U
NFDHA	-	-	-	ug/kg	<0.31	U	<0.29	U	<0.30	U
9Cl-PF3ONS (F-53B Maj(or)	-	-	-	ug/kg	<0.55	U	<0.52	U	<0.54	U
11Cl-PF3OUdS (F-53B Minor)	-	-	-	ug/kg	<0.50	U	<0.48	U	<0.49	U
PFEESA	-	-	-	ug/kg	<0.25	U	<0.24	U	<0.24	U
3:3 Fluorotelomer carboxylate	-	-	-	ug/kg	<0.64	U	<0.61	U	<0.62	U
5:3 Fluorotelomer carboxylate	-	-	-	ug/kg	<1.5	U	<1.4	U	<1.4	U
7:3 Fluorotelomer carboxylate	-	-	-	ug/kg	<1.6	U	<1.5	U	<1.6	U

Notes:
b/ Part 375 Commercial Use SCO.
c/ Proposed Part 375 Commercial Use Soil Cleanup Objectives.
d/PFAS Groundwater Quality Screening Values from *Sampling, Analysis, and Assessmetn of Per- and Polyfluoroalkyl Substances (PFAS). NYSDEC. April 2023*
U = not detected above reporting limit shown.
J= estimated value. Results above MDL but below RL.
mg/L = milligrams per liter; ug/L = micrograms per liter; mg/kg = milligrams per kilogram; ug/kg = micrograms per kilograms; ug/g = micrograms per gram; btu/lb = british thermal units per pound.

"-" denotes absence of a proposed standard or sample was not analyzed for corresponding analyte.
"*"Minimum detection limit is higher than guidance value.
Bold value = compound is detected.
Bold with red highlight = compound exceeds Class GA Ambient Water Quality Standards
Data reported from Site Characterization For Lyndon Road Landfill (Ramboll, 2023).

Table 6
Monitoring Well Location Summary
80 Lyndon Road
Fairport, New York

Target Location	Monitoring Well Designation	Type	Depth	Groundwater Samples	Rationale	Drilling Depth	Sample Depth	Soil Sample Analysis							Groundwater Sample Analysis					
			(Feet)			(Feet)	(Feet unless noted as inch)	VOCs	SVOCs	Metals	PCBs	Pesticide / Herbicides	PFAS & 1,4-Dioxane	Geotechnical (UW, Perm)	VOCs	SVOCs	Metals	Pesticide / Herbicides	PFAS & 1,4-Dioxane
Northeast Corner of Landfill	MW-BCP-01B	Medium-depth, in soil below screen of LR-MW-01	25		Downgradient of LR-MW-01	25	10		1	1	1	1	1							
														1						
				1			18	1	1	1	1		1		1	1	1	1	1	
Northeast Corner of Landfill	MW-BCP-01D	Bedrock Monitoring Well below screen of LR-MW-01	25		Downgradient of LR-MW-01	35														
				1											1	1	1	1	1	
East of Landfill	MW-BCP-02B	Medium-depth, in soil below screen of LR-MW-02	25		Downgradient of LR-MW-02	25	10		1	1	1	1	1							
							15	1							1	1	1	1	1	
East of Landfill	MW-BCP-02D	Bedrock Monitoring Well below screen of LR-MW-02	35		Downgradient of LR-MW-02	35														
				1											1	1	1	1	1	
South end of Parking Lot, near Drum Location	MW-BCP-04B	Medium-depth, in soil below screen of LR-MW-04	25		Downgradient of LR-MW-04	25	10		1	1	1	1	1							
														1						
				1			18	1	1	1	1		1		1	1	1	1	1	

Table 6
Monitoring Well Location Summary
80 Lyndon Road
Fairport, New York

Target Location	Monitoring Well Designation	Type	Depth	Groundwater Samples	Rationale	Drilling Depth	Sample Depth	Soil Sample Analysis							Groundwater Sample Analysis					
			(Feet)			(Feet)	(Feet unless noted as inch)	VOCs	SVOCs	Metals	PCBs	Pesticide / Herbicides	PFAS & 1,4-Dioxane	Geotechnical (UW, Perm)	VOCs	SVOCs	Metals	Pesticide / Herbicides	PFAS & 1,4-Dioxane
South end of Parking Lot, near Drum Location	MW-BCP-04D	Bedrock Monitoring Well below screen of LR-MW-04	35		Downgradient of LR-MW-04	35													
				1											1	1	1	1	1
South end of Landfill	MW-BCP-05B	Medium-depth, in soil below screen of LR-MW-05	25		Downgradient of LR-MW-05	25	10		1	1	1	1	1						
							15	1							1	1	1	1	1
Field west of Thomas Creek	MW-BCP-06B	Medium-depth, in soil below screen of LR-MW-06	25		Downgradient of LR-MW-06	25	10		1	1	1	1	1						
				1			18	1	1	1	1		1		1	1	1	1	1
Field west of Thomas Creek	MW-BCP-06D	Bedrock Monitoring Well below screen of LR-MW-06	25		Downgradient of LR-MW-06	35													
				1											1	1	1	1	1
North of Zamboni Door	MW-BCP-07A	Medium-depth, in soil below screen of LR-MW-07	15		Downgradient of LR-MW-07, Shallow weel to confirm medium depth result.	15	10		1	1	1	1	1						
							15	1							1	1	1	1	1

Table 6
Monitoring Well Location Summary
80 Lyndon Road
Fairport, New York

Target Location	Monitoring Well Designation	Type	Depth	Groundwater Samples	Rationale	Drilling Depth	Sample Depth	Soil Sample Analysis							Groundwater Sample Analysis					
			(Feet)			(Feet)	(Feet unless noted as inch)	VOCs	SVOCs	Metals	PCBs	Pesticide / Herbicides	PFAS & 1,4-Dioxane	Geotechnical (UW, Perm)	VOCs	SVOCs	Metals	Pesticide / Herbicides	PFAS & 1,4-Dioxane
North of Zamboni Door	MW-BCP-07D	Bedrock Monitoring Well below screen of LR-MW-07	35		Downgradient of LR-MW-07	35													
				1											1	1	1	1	1
Northeast Corner of Landfill	MW-BCP-08A	Shallow-depth, Center of Landfill, provides basis for gradient computations	15		Downgradient of LR-MW-04	15	10		1	1	1	1	1						
														1					
				1			14	1	1	1	1		1		1	1	1	1	1
Northeast Corner of Landfill	MW-BCP-08B	Shallow-depth, Center of Landfill, provides basis for gradient computations	25		Downgradient of LR-MW-04	25													
				1			18	1	1	1	1		1		1	1	1	1	1
Northeast Corner of Landfill	MW-BCP-08D	Bedrock, Center of Landfill, provides basis for gradient computations	35		Downgradient of LR-MW-04	35													
				1											1	1	1	1	1
East of Landfill	MW-BCP-09A	Northwest corner of property	15			15	10		1	1	1	1	1						
							15	1							1	1	1	1	1
East of Landfill	MW-BCP-09B	Northwest corner of property	25			25													
				1											1	1	1	1	1

Table 6
Monitoring Well Location Summary
80 Lyndon Road
Fairport, New York

Target Location	Monitoring Well Designation	Type	Depth	Groundwater Samples	Rationale	Drilling Depth	Sample Depth	Soil Sample Analysis							Groundwater Sample Analysis					
			(Feet)			(Feet)	(Feet unless noted as inch)	VOCs	SVOCs	Metals	PCBs	Pesticide / Herbicides	PFAS & 1,4-Dioxane	Geotechnical (UW, Perm)	VOCs	SVOCs	Metals	Pesticide / Herbicides	PFAS & 1,4-Dioxane
Southwest parcel	MW-BCP-10A	Shallow-depth, investigate the parcel west of Lyndon Road	15			15	10		1	1	1	1	1						
														1					
				1			14	1	1	1	1		1		1	1	1	1	1
		Totals				445		10	15	15	15	9	15	4	17	17	17	17	17
							Duplicates	1	1	1	1	1	1		1	1	1	1	1
							MS/MSD	1	1	1	1	1	1		1	1	1	1	1
							Equipment Blank	1	1	1	1	1	1		1	1	1	1	1

Notes:

Table 7
Test Pit Location Summary
80 Lyndon Road
Fairport, New York

Property Subsection	Site Location	Sample ID	Type	Estimated Depth	Minimum Length	Soil Samples	Rationale	Sample Interval	Soil Sample Analysis					
				(Feet)	(Feet)			(Feet unless Noted as inch)	VOCs	SVOCs	Metals	PCBs	Pesticide / Herbicides	PFAS & 1,4-Dioxane
TP-BCP-01			Test Pit	10	30	1	North Slope							
							North Slope if visually impacted.	8	1	1	1	1	1	1
								Fill Observations. Depth to Interface						
TP-BCP-02			Test Pit	10	30	1	Equipment Parking Area							
							If visually impacted.	8	1	1	1	1	1	1
								Fill Observations. Depth to Interface						
TP-BCP-03			Test Pit	15	30	1	High Point of Landfill							
							If visually impacted.	14	1	1	1	1	1	1
								Fill Observations. Depth to Interface						
TP-BCP-04			Test Pit	10	30	1	East Slope							
							North Slope if visually impacted.	8	1	1	1	1	1	1
								Fill Observations. Depth to Interface						

Table 7
Test Pit Location Summary
80 Lyndon Road
Fairport, New York

Property Subsection	Site Location	Sample ID	Type	Estimated Depth	Minimum Length	Soil Samples	Rationale	Sample Interval	Soil Sample Analysis					
				(Feet)	(Feet)			(Feet unless Noted as inch)	VOCs	SVOCs	Metals	PCBs	Pesticide / Herbicides	PFAS & 1,4-Dioxane
TP-BCP-05			Test Pit	15	30	1	North Eend of Clearing							
							If visually impacted.	14	1	1	1	1	1	1
								Fill Observations. Depth to Interface						
TP-BCP-06			Test Pit	15	30	1	Center of Clearing							
							If visually impacted.	14	1	1	1	1	1	1
								Fill Observations. Depth to Interface						
TP-BCP-07			Test Pit	15	30	1	Southeast Slope							
							If visually impacted.	14	1	1	1	1	1	1
								Fill Observations. Depth to Interface						
TP-BCP-08			Test Pit	10	30	1	South End of Landfill							
							If visually impacted.	8	1	1	1	1	1	1
								Fill Observations. Depth to Interface						

Table 7
Test Pit Location Summary
80 Lyndon Road
Fairport, New York

Property Subsection	Site Location	Sample ID	Type	Estimated Depth	Minimum Length	Soil Samples	Rationale	Sample Interval	Soil Sample Analysis					
				(Feet)	(Feet)			(Feet unless Noted as inch)	VOCs	SVOCs	Metals	PCBs	Pesticide / Herbicides	PFAS & 1,4-Dioxane
TP-BCP-09			Test Pit	10	30	1	Southwest Slope							
							If visually impacted.	8	1	1	1	1	1	1
								Fill Observations. Depth to Interface						
TP-BCP-10			Test Pit	15	30	1	Steep Slope South of Parking Lot							
							If visually impacted.	13	1	1	1	1	1	1
								Fill Observations. Depth to Interface						
TP-BCP-11			Test Pit	10	30	1	Slope west of Parking Lot							
							If visually impacted.	8	1	1	1	1	1	1
								Fill Observations. Depth to Interface						
TP-BCP-12			Test Pit	10	30	1	South End of Field Along Lyndon Road							
							If visually impacted.	8	1	1	1	1	1	1
								Fill Observations. Depth to Interface						

Table 7
Test Pit Location Summary
80 Lyndon Road
Fairport, New York

Property Subsection	Site Location	Sample ID	Type	Estimated Depth	Minimum Length	Soil Samples	Rationale	Sample Interval	Soil Sample Analysis					
				(Feet)	(Feet)			(Feet unless Noted as inch)	VOCs	SVOCs	Metals	PCBs	Pesticide / Herbicides	PFAS & 1,4-Dioxane
TP-BCP-13			Test Pit	10	30	1	North End of Field along Lyndon Road							
							If visually impacted.	8	1	1	1	1	1	1
								Fill Observations. Depth to Interface						
TP-BCP-14			Test Pit	15	30	1	Slope North of Retention Pond							
							If visually impacted.	13	1	1	1	1	1	1
								Fill Observations. Depth to Interface						
TP-BCP-15			Test Pit	15	30	1	Northwest Center of Site							
							If visually impacted.	13	1	1	1	1	1	1
								Fill Observations. Depth to Interface						
TP-BCP-16			Test Pit	10	30	1	North End of Triangular Parcel							
							If visually impacted.	8	1	1	1	1	1	1
								Fill Observations. Depth to Interface						

Table 7
Test Pit Location Summary
80 Lyndon Road
Fairport, New York

Property Subsection	Site Location	Sample ID	Type	Estimated Depth	Minimum Length	Soil Samples	Rationale	Sample Interval	Soil Sample Analysis					
				(Feet)	(Feet)			(Feet unless Noted as inch)	VOCs	SVOCs	Metals	PCBs	Pesticide / Herbicides	PFAS & 1,4-Dioxane
TP-BCP-17			Test Pit	10	30	1	Southwest end of triangular parcel							
							If visually impacted.	8	1	1	1	1	1	1
								Fill Observations. Depth to Interface						
						Totals			17	17	17	17	17	17
						Duplicates			1	1	1	1	1	1
						MS/MSD			1	1	1	1	1	1

Notes:

Table 8
Soil Boring Location Summary
80 Lyndon Road
Fairport, New York

Property Subsection	Site Location	Sample ID	Type	Estimated Depth	Rationale	Sample Interval	Soil Sample Analysis					
				(Feet)		(Feet unless Noted as inch)	VOCs	SVOCs	Metals	PCBs	Pesticide / Herbicides	PFAS & 1,4-Dioxane
SB-BCP-01			Test Pit	25	Area East of Building, Ground surface to top of Rock	0-25	SPT and classification					
						Fill Observations. Depth to Interface						
SB-BCP-02			Test Pit	25	Area East of Building, Ground surface to top of Rock	0-25	SPT and classification					
						Fill Observations. Depth to Interface						
SB-BCP-03			Test Pit	25	Area East of Building, Ground surface to top of Rock	0-25	SPT and classification					
						Fill Observations. Depth to Interface						
SB-BCP-04			Test Pit	25	Area East of Building, Ground surface to top of Rock	0-25	SPT and classification					
						Fill Observations. Depth to Interface						
SB-BCP-05			Test Pit	25	Area East of Building, Ground surface to top of Rock	0-25	SPT and classification					
						Fill Observations. Depth to Interface						
SB-BCP-06			Test Pit	25	Area East of Building, Ground surface to top of Rock	0-25	SPT and classification					
						Fill Observations. Depth to Interface						
SB-BCP-07			Test Pit	25	Area East of Building, Ground surface to top of Rock	0-25	SPT and classification					

Table 8
Soil Boring Location Summary
80 Lyndon Road
Fairport, New York

Property Subsection	Site Location	Sample ID	Type	Estimated Depth	Rationale	Sample Interval	Soil Sample Analysis					
				(Feet)		(Feet unless Noted as inch)	VOCs	SVOCs	Metals	PCBs	Pesticide / Herbicides	PFAS & 1,4-Dioxane
						Fill Observations. Depth to Interface						
SB-BCP-08			Test Pit	25	Area East of Building, Ground surface to top of Rock	0-25	SPT and classification					
						Fill Observations. Depth to Interface						
SB-BCP-09			Test Pit	25	Area west of Parking Lot, Ground surface to top of Rock	0-25	SPT and classification					
						Fill Observations. Depth to Interface						
SB-BCP-10			Test Pit	25	Area west of Parking Lot, Ground surface to top of Rock	0-25	SPT and classification					
						Fill Observations. Depth to Interface						
					Reserve Samples if potential Source Materials encountered.		2	2	2	2	2	2
Totals							2	2	2	2	2	2
Duplicates							1	1	1	1	1	1
MS/MSD							1	1	1	1	1	1
Equipment Blank							1	1	1	1	1	1

Notes: Reserve samples are for potential observed Source Materials.
Equipment blanks will be collected in accordance for the frequency of the QAPP.

Table 9
Media Samples (Grab)
80 Lyndon Road
Fairport, New York

Site Location	Sample ID	Rationale	Sample Depth	Sediment and Surface Sample Analysis							Water Sample Analysis				
			(Feet unless Noted as inch)	VOCs	SVOCs	Metals	PCBs	Pesticide / Herbicides	PFAS & 1,4-Dioxane		VOCs	SVOCs	Metals	Pesticide / Herbicides	PFAS & 1,4-Dioxane
Surface Water and Sediments															
Thomas Creek	SWSD-BCP-10	Upgradient	0 - 1	1	1	1		1	1		1	1	1	1	1
Thomas Creek	SWSD-BCP-11	Downgradient of Landfill	0 - 1	1	1	1		1	1		1	1	1	1	1
Thomas Creek	SWSD-BCP-12	Downgradient of Eastern Seepage from Landfill	0 - 1	1	1	1		1	1		1	1	1	1	1
Thomas Creek	SWSD-BCP-13	Downgradient of Southern Seepage from Landfill	0 - 1	1	1	1		1	1		1	1	1	1	1
Thomas Creek	SWSD-BCP-14	Downgradient of Western Seepage from Landfill	0 - 1	1	1	1		1	1		1	1	1	1	1
Thomas Creek	SWSD-BCP-15	Downgradient of Site	0 - 1	1	1	1		1	1		1	1	1	1	1
Surface Soils															
SS-BCP-01	SS-BCP-01	Determine if meets commercial criteria and assess human exposures	0-2 inch		1	1	1	1	1						
		Assess human VOC exposure	0-6 inch	1											
			2-24 inch		1	1	1	1	1						
SS-BCP-02	SS-BCP-02	Determine if meets commercial criteria and assess human exposures	0-2 inch		1	1	1	1	1						
		Assess human VOC exposure	0-6 inch	1											
			2-24 inch		1	1	1	1	1						
SS-BCP-03	SS-BCP-03	Determine if meets commercial criteria and assess human exposures	0-2 inch		1	1	1	1	1						
		Assess human VOC exposure	0-6 inch	1											
			2-24 inch		1	1	1	1	1						
SS-BCP-04	SS-BCP-04	Determine if meets commercial criteria and assess human exposures	0-2 inch		1	1	1	1	1						
		Assess human VOC exposure	0-6 inch	1											

Table 9
Media Samples (Grab)
80 Lyndon Road
Fairport, New York

Site Location	Sample ID	Rationale	Sample Depth	Sediment and Surface Sample Analysis							Water Sample Analysis				
			(Feet unless Noted as inch)	VOCs	SVOCs	Metals	PCBs	Pesticide / Herbicides	PFAS & 1,4-Dioxane		VOCs	SVOCs	Metals	Pesticide / Herbicides	PFAS & 1,4-Dioxane
			2-24 inch		1	1	1	1	1						
SS-BCP-05	SS-BCP-05	Determine if meets commercial criteria and assess human exposures	0-2 inch		1	1	1	1	1						
		Assess human VOC exposure	0-6 inch	1											
			2-24 inch		1	1	1	1	1						
SS-BCP-06	SS-BCP-06	Determine if meets commercial criteria and assess human exposures	0-2 inch		1	1	1	1	1						
		Assess human VOC exposure	0-6 inch	1											
			2-24 inch		1	1	1	1	1						
		Totals		12	18	18	12	18	18		6	6	6	6	6
		Duplicates		1	1	1	1	1	1		1	1	1	1	1
		MS/MSD		1	1	1	1	1	1		1	1	1	1	1

Notes:

Table 10
Existing Monitoring Wells
80 Lyndon Road
Fairport, New York

Top of Riser Elevation (Feet AMSL)	Ground Surface Elevation (Feet AMSL)	Well Depth (Feet BTOC)	Monitoring I.D.	Type	Rationale	Groundwater Sample Analysis			
						VOCs	SVOCs	Metals	PFAS
Pending	Pending	Pending	LR-MW-01	Shallow Monitoring Well	Existing Monitoring Well	1	1	1	
Pending	Pending	Pending	LR-MW-02	Shallow Monitoring Well	Existing Monitoring Well	1	1	1	
Pending	Pending	Pending	LR-MW-03	Shallow Monitoring Well	Existing Monitoring Well	1	1	1	
Pending	Pending	Pending	LR-MW-04	Shallow Monitoring Well	Existing Monitoring Well	1	1	1	
Pending	Pending	Pending	LR-MW-05	Shallow Monitoring Well	Existing Monitoring Well	1	1	1	
Pending	Pending	Pending	LR-MW-06	Shallow Monitoring Well	Existing Monitoring Well	1	1	1	
Pending	Pending	Pending	LR-MW-07	Medium Depth Monitoring Well	Existing Monitoring Well	1	1	1	
				Totals		7	7	7	0
					Duplicates	1	1	1	
					MS/MSD	1	1	1	

Note: Well elevations are pending and will be surveyed as part of the RI work.
Monitoring Wells LR-MW-01 through MW-LR-07 sampled for PFAS in 2023.

Table 11
Soil Vapor Samples
80 Lyndon Road
Fairport, New York

Target Location	Vapor Sample Designation	Type	Depth	Soil Vapor Samples	Rationale	Drilling Depth	Sample Depth	Soil Vapor Sample Analysis
			(Feet)			(Feet)	(Feet unless noted as inch)	TO-15
SOIL GAS								
Northeast Corner of Landfill	SG-BCP-01	Soil Vapor	5-10	1	Downgradient of LR-MW-01	5-10	10	1
East of Landfill	SG-BCP-02	Soil Vapor	5-10	1	Downgradient of LR-MW-02	5-10	10	1
South end of Parking Lot, near Drum Location	SG-BCP-04	Soil Vapor	5-10	1	Downgradient of LR-MW-04	5-10	10	1
South end of Landfill	SG-BCP-05	Soil Vapor	5-10	1	Downgradient of LR-MW-05	5-10	10	1
Field west of Thomas Creek	SG-BCP-06	Soil Vapor	5-10	1	Downgradient of LR-MW-06	5-10	10	1
North of Zamboni Door	SG-BCP-07	Soil Vapor	5-10	1	Downgradient of LR-MW-07	5-10	10	1
Northeast Corner of Landfill	SG-BCP-08	Soil Vapor	5-10	1	Downgradient of LR-MW-04	5-10	10	1

Table 11
Soil Vapor Samples
80 Lyndon Road
Fairport, New York

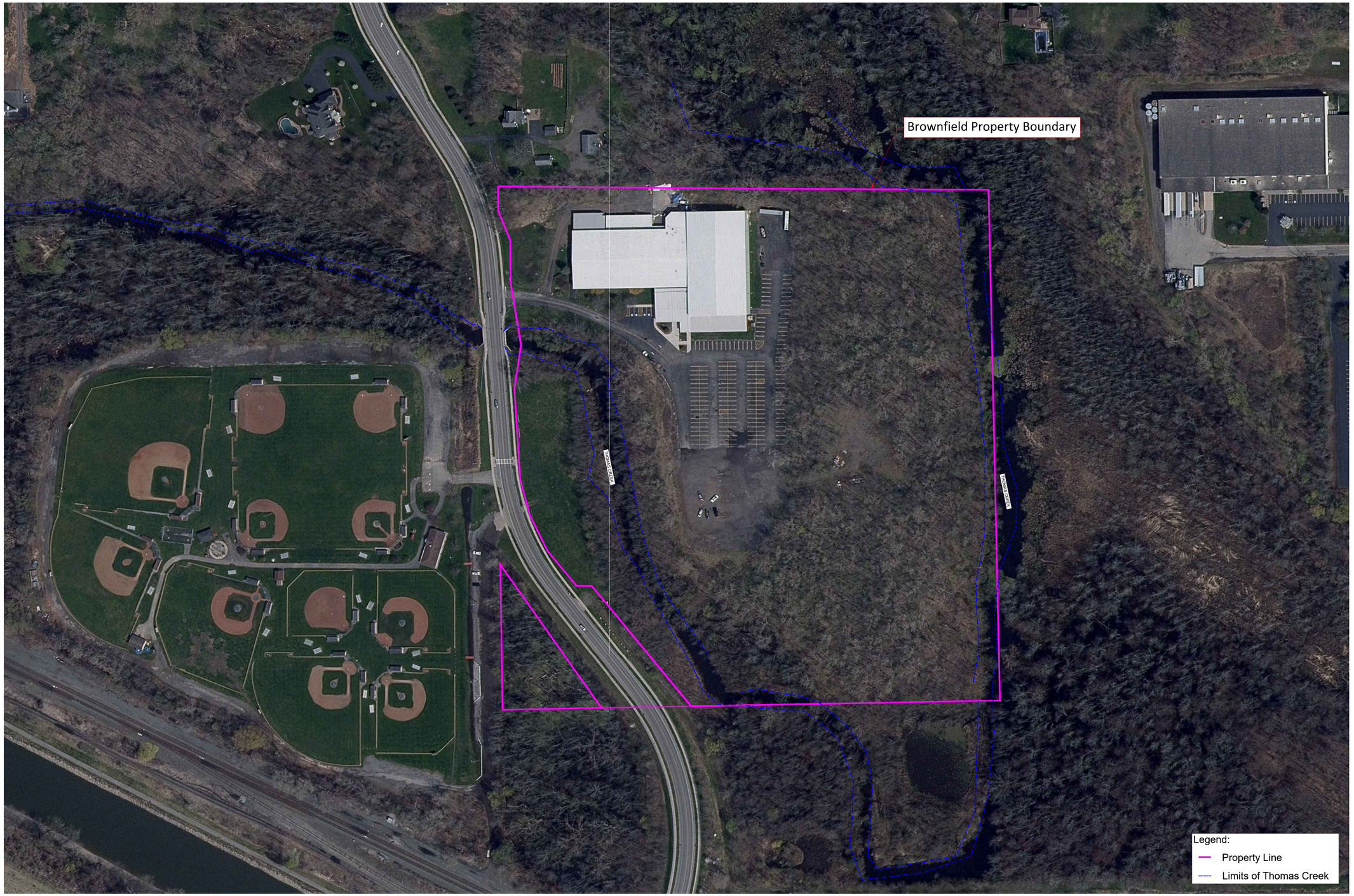
East of Landfill	SG-BCP-09	Soil Vapor	5-10	1	Northwest perimeter of the site	5-10	10	1
Southwest parcel	SG-BCP-10	Soil Vapor	5-10	1	Soutwest perimeter of the site	5-10	10	1
Exterior of building	Ambient	Ambient Control	5-10	1	Ambient control	N/A	N/A	1
SUB-SLAB VAPOR								
Northwest portion of existing building	SSV-BCP-01	Sub-slab Vapor	5-10	1	Within the northwest portion of building footprint	N/A	Sub-slab	1
Southwest portion of existing building	SSV-BCP-02	Sub-slab Vapor	5-10	1	Within the southwest portion of building footprint	N/A	Sub-slab	1
Northeast portion of existing building	SSV-BCP-03	Sub-slab Vapor	5-10	1	Within the northeast portion of building footprint	N/A	Sub-slab	1
Southeast portion of existing building	SSV-BCP-04	Sub-slab Vapor	5-10	1	Within the southeast portion of building footprint	N/A	Sub-slab	1

Table 11
Soil Vapor Samples
80 Lyndon Road
Fairport, New York

INDOOR AIR								
Collocated with SSV-BCP-01	IA-BCP-01	Indoor Air	5-10	1	Within the northwest portion of building footprint	N/A	N/A	1
Collocated with SSV-BCP-02	IA-BCP-02	Indoor Air	5-10	1	Within the southwest portion of building footprint	N/A	N/A	1
Collocated with SSV-BCP-03	IA-BCP-03	Indoor Air	5-10	1	Within the northeast portion of building footprint	N/A	N/A	1
Collocated with SSV-BCP-04	IA-BCP-04	Indoor Air	5-10	1	Within the southeast portion of building footprint	N/A	N/A	1
Exterior of building	Ambient	Ambient Control	5-10	1	Ambient control	N/A	N/A	1
					Totals	90		19

Notes:

Figures



D

1" = 100'
100' 50' 0' 100'

Notes:
1. Outside of site boundary, the location of Thomas Creek is estimated.

Source:
1. Schultz Associates, 2023, Map of a Survey of 80 Lyndon Road, Town of Perinton, County of Monroe, New York.
2. Aerial imagery provided by Schultz Associates, 2020.

DRAWING BY	RB
CHECKED	JE
APPROVED	JB

SITE AERIAL

80 LYNDON ROAD
FAIRPORT, NEW YORK 14450

INVENTUM ENGINEERING
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SUITE C
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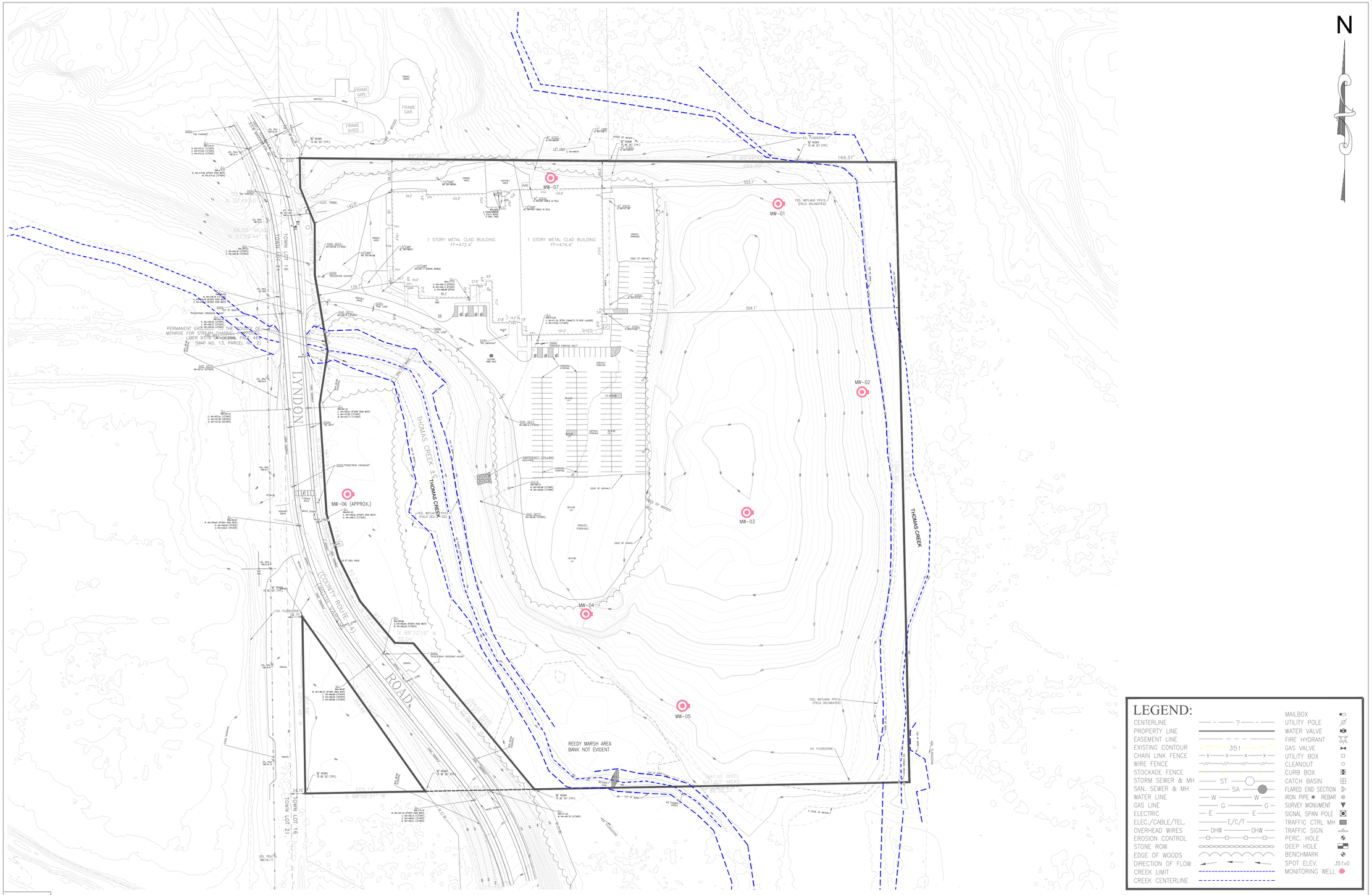
FIGURE 1

DRAWING NUMBER
REMEDIAL INVESTIGATION WORKPLAN



D

Notes:
1. Outside of site boundary, the location of Thomas Creek is estimated.

Source: Schultz Associates, 2023, Map of a Survey of 80 Lyndon Road, Town of Perinton, County of Monroe, New York.

LEGEND:

CENTERLINE	?	MAILBOX	
PROPERTY LINE		UTILITY POLE	
EASEMENT LINE		WATER VALVE	
EXISTING CONTOUR	351	FIRE HYDRANT	
CHAIN LINK FENCE	X X X	GAS VALVE	
WIRE FENCE		UTILITY BOX	
STOCKADE FENCE		CLEANOUT	
STORM SEWER & MH	ST	CURB BOX	
SAN. SEWER & MH	SA	CATCH BASIN	
WATER LINE	W W	FLARED END SECTION	
GAS LINE	G G	IRON PIPE ● REBAR	
ELECTRIC	E E	SURVEY MONUMENT	
ELEC./CABLE/TEL.	E/C/T	SIGNAL SPAN POLE	
OVERHEAD WIRES	OHW OHW	TRAFFIC CTRL MH	
EROSION CONTROL		TRAFFIC SIGN	
STONE ROW		PERC. HOLE	
EDGE OF WOODS		DEEP HOLE	
DIRECTION OF FLOW		BENCHMARK	
CREEK LIMIT		SPOT ELEV.	.351x0
CREEK CENTERLINE		MONITORING WELL	

DRAWING BY	RB
CHECKED	JE
APPROVED	JB

TOPOGRAPHIC SURVEY

80 LYNDON ROAD

FAIRPORT, NEW YORK 14450

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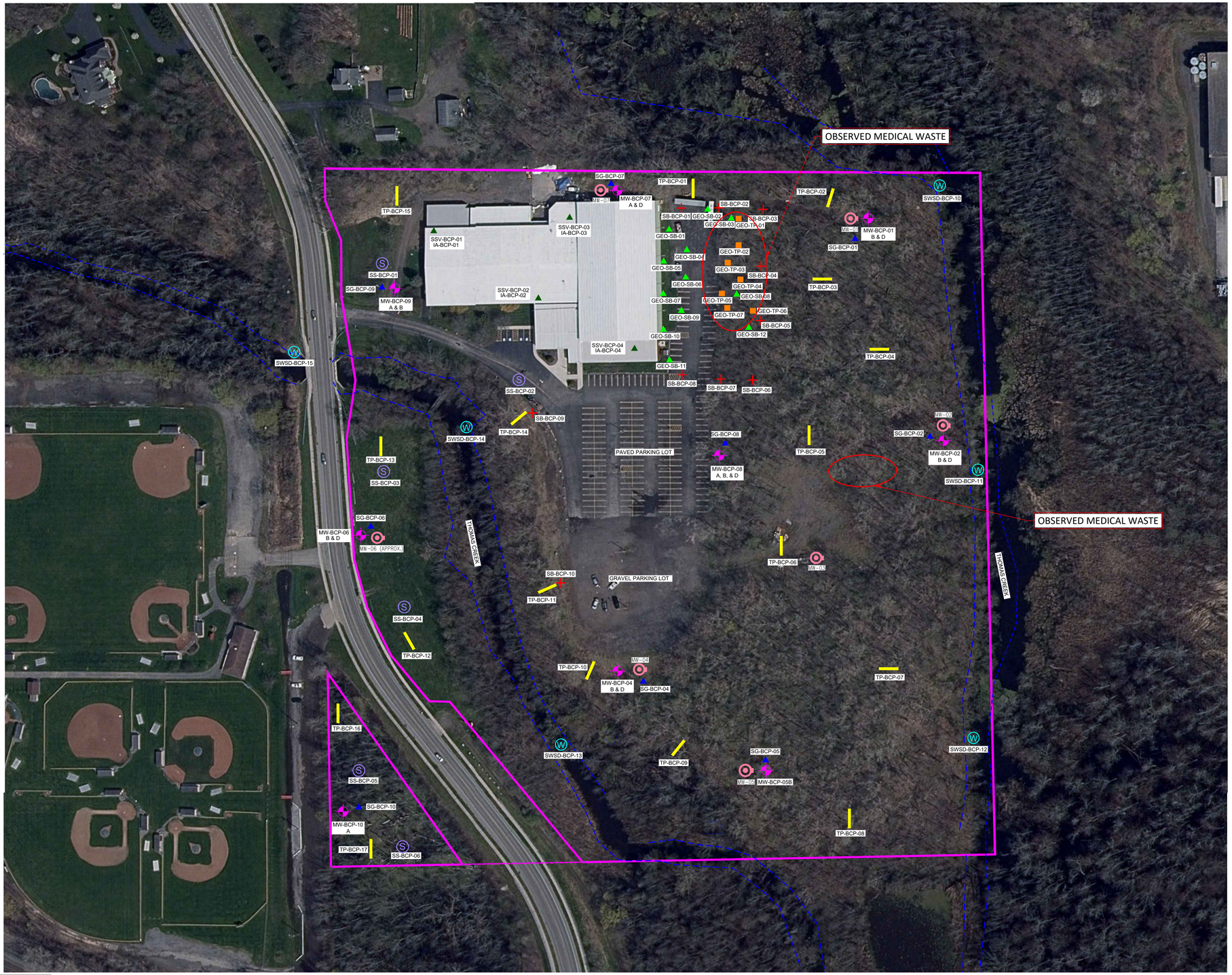
FIGURE 2

DRAWING NUMBER
REMEDIAL INVESTIGATION WORKPLAN



N

Legend:

- Existing Monitoring Well
- Proposed Monitoring Well
- Soil Boring - Remedial Investigation
- Soil Boring - Geotechnical Investigation
- Test Pit - Remedial Investigation
- Test Pit - Geotechnical Investigation
- Surface Soil Sample
- Sediment/Surface Water Sample
- Property Line
- Limits of Thomas Creek
- Soil Gas Sample
- Sub-slab Vapor and Indoor Air Samples

D

1" = 80'

80' 40' 0' 80'

Notes:
1. The geotechnical investigation Soil Borings 1 - 12 and Test Pits 1 - 8 will be completed prior to the BCP Remedial Investigation.
2. Outside of site boundary, the location of Thomas Creek is estimated.

Source:
1. Schultz Associates, 2023, Map of a Survey of 80 Lyndon Road, Town of Perinton, County of Monroe, New York.
2. Aerial imagery provided by Schultz Associates, 2020.

DRAWING BY	RB
CHECKED	JE
APPROVED	JB

REMEDIAL INVESTIGATION
PROPOSED SAMPLE LOCATIONS

80 LYNDON ROAD
FAIRPORT, NEW YORK 14450

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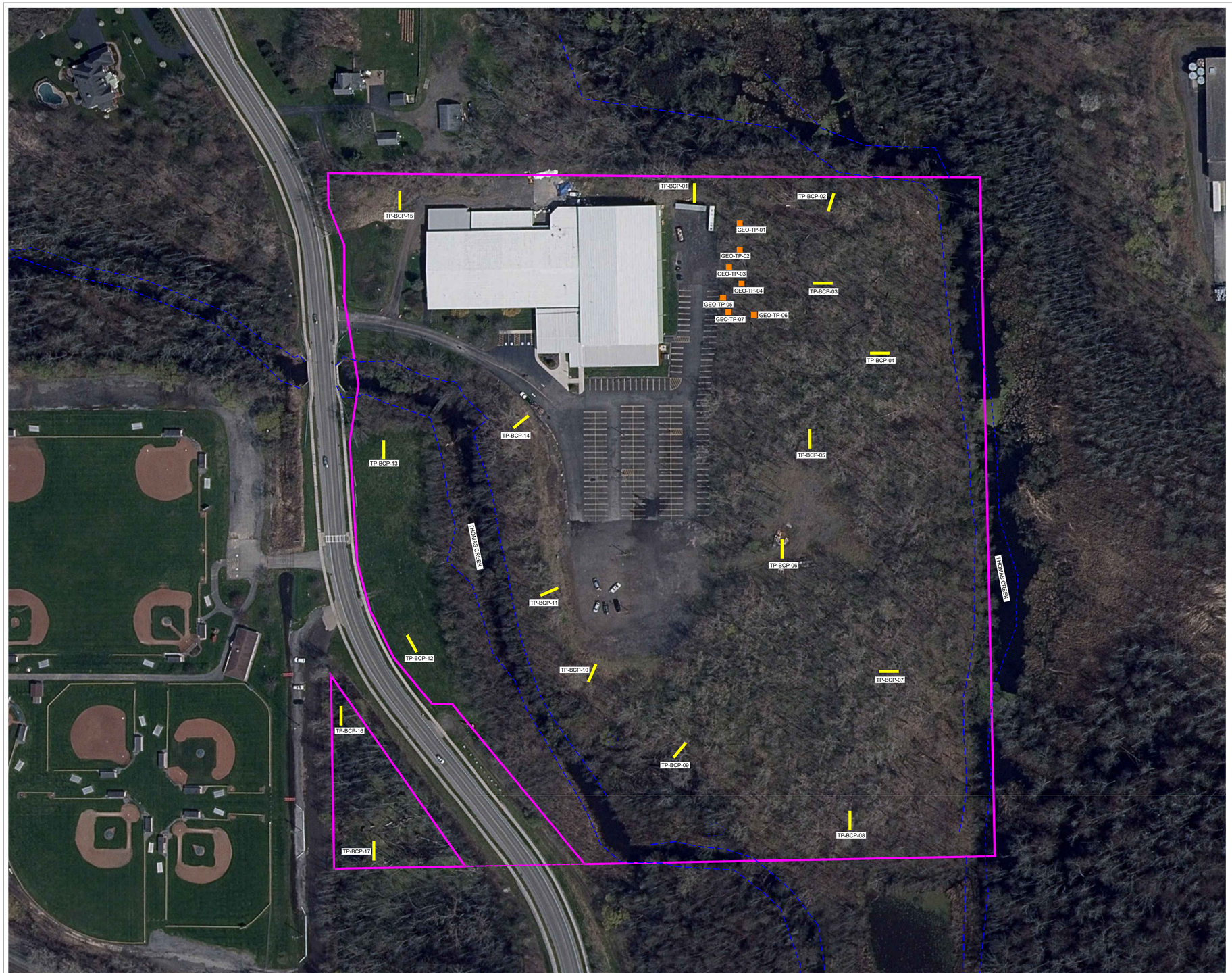
FIGURE 3

DRAWING NUMBER
REMEDIAL INVESTIGATION WORKPLAN



N

Legend:

- Existing Monitoring Well
- Proposed Monitoring Well
- Soil Boring - Remedial Investigation
- Soil Boring - Geotechnical Investigation
- Test Pit - Remedial Investigation
- Test Pit - Geotechnical Investigation
- Surface Soil Sample
- Sediment/Surface Water Sample
- Property Line
- Limits of Thomas Creek

D

1" = 80'

80' 40' 0' 80'

Notes:
1. The geotechnical investigation Soil Borings 1 - 12 and Test Pits 1 - 8 will be completed prior to the BCP Remedial Investigation.
2. Outside of site boundary, the location of Thomas Creek is estimated.

Source:
1. Schultz Associates, 2023, Map of a Survey of 80 Lyndon Road, Town of Perinton, County of Monroe, New York.
2. Aerial imagery provided by Schultz Associates, 2020.

DRAWING BY	RB
CHECKED	JE
APPROVED	JB

PROPOSED TEST PIT LOCATIONS

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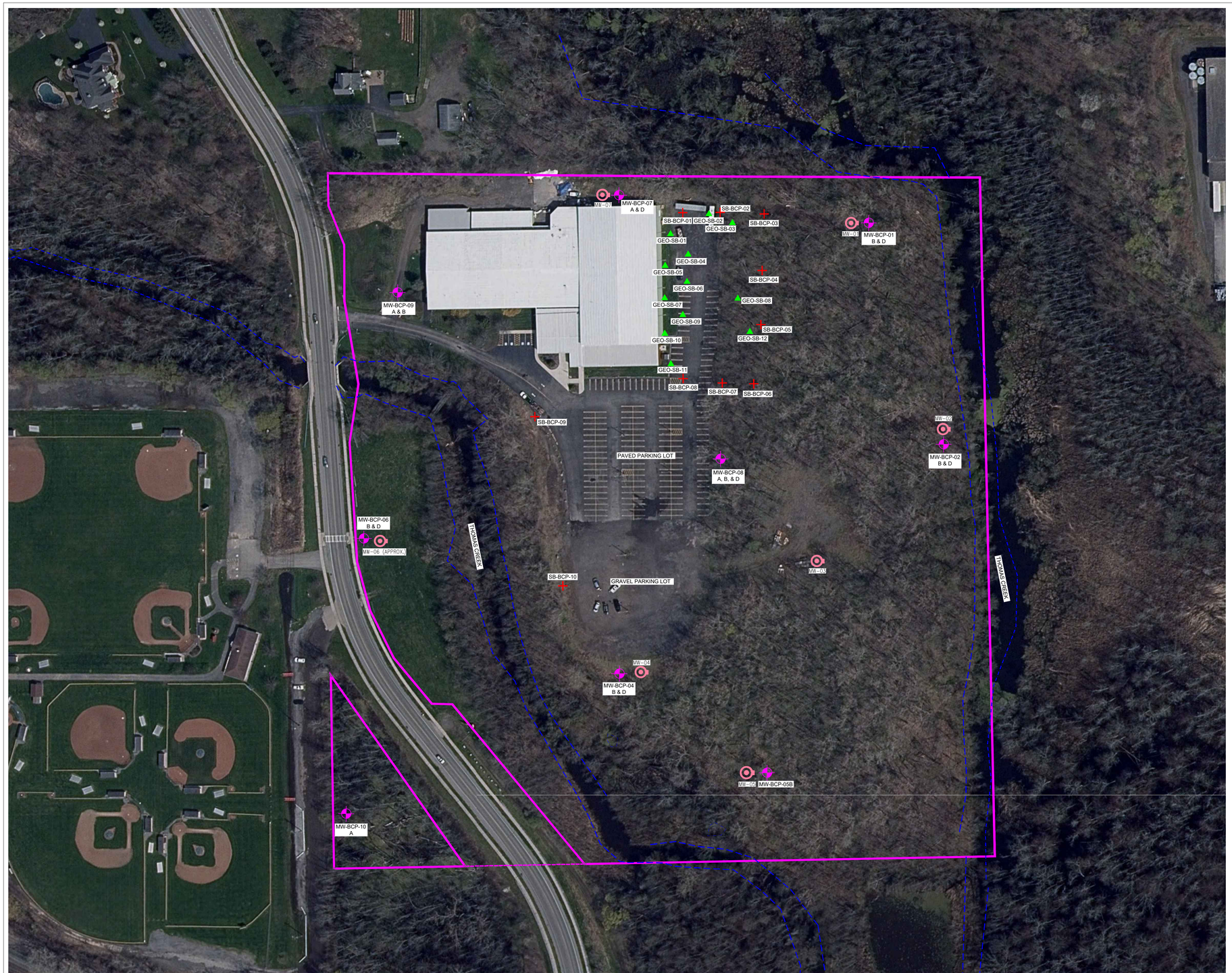
FIGURE 4

DRAWING NUMBER
REMEDIAL INVESTIGATION WORKPLAN



N

Legend:

- Existing Monitoring Well
- Proposed Monitoring Well
- Soil Boring - Remedial Investigation
- Soil Boring - Geotechnical Investigation
- Test Pit - Remedial Investigation
- Test Pit - Geotechnical Investigation
- Surface Soil Sample
- Sediment/Surface Water Sample
- Property Line
- Limits of Thomas Creek

D

1" = 80'

80' 40' 0' 80'

Notes:
1. The geotechnical investigation Soil Borings 1 - 12 and Test Pits 1 - 8 will be completed prior to the BCP Remedial Investigation.
2. Outside of site boundary, the location of Thomas Creek is estimated.

Source:
1. Schultz Associates, 2023, Map of a Survey of 80 Lyndon Road, Town of Perinton, County of Monroe, New York.
2. Aerial imagery provided by Schultz Associates, 2020.

DRAWING BY	RB
CHECKED	JE
APPROVED	JB

PROPOSED SOIL BORINGS & MONITORING WELL LOCATIONS

80 LYNDON ROAD

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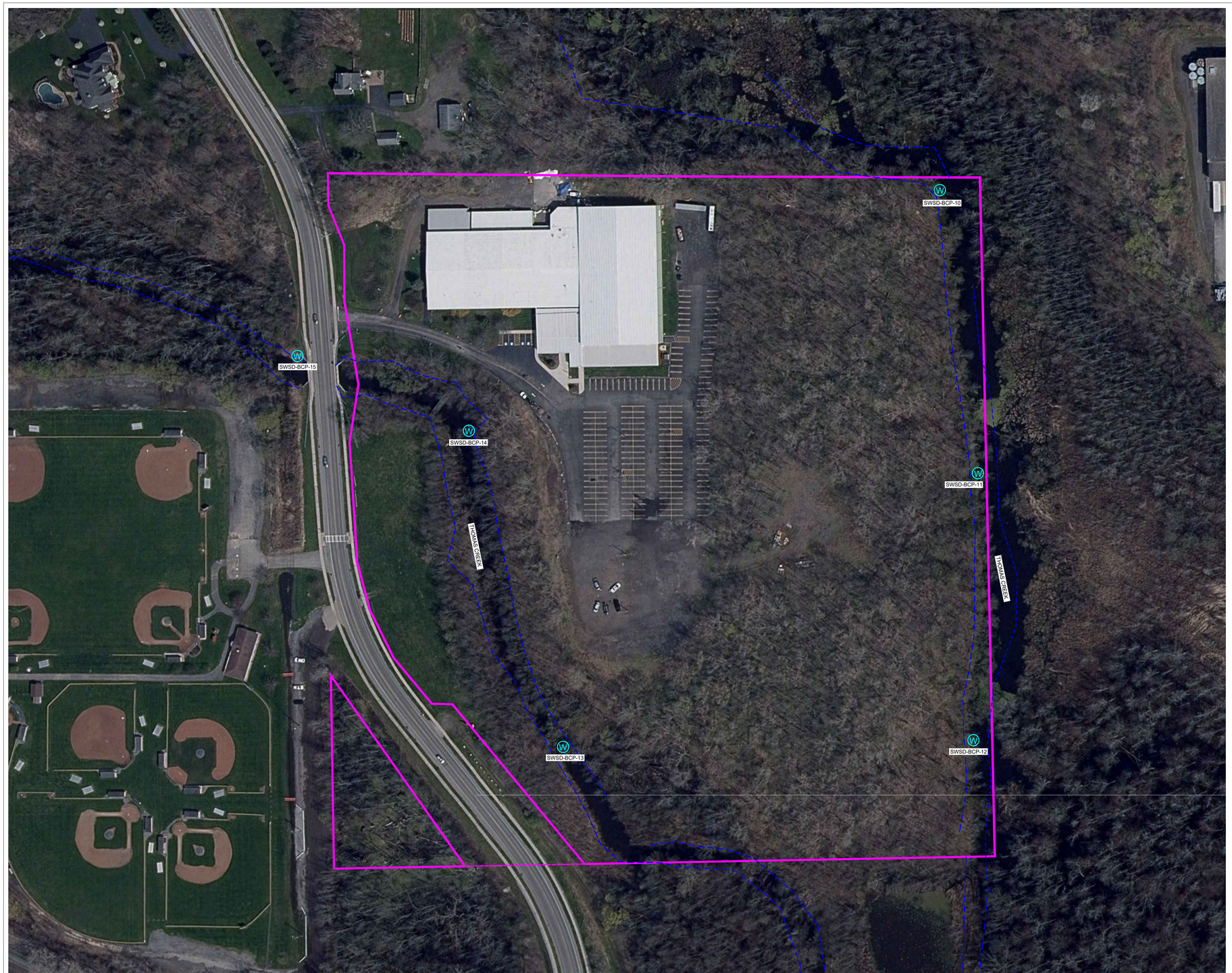
FIGURE 5

DRAWING NUMBER
REMEDIAL INVESTIGATION WORKPLAN



N

Legend:
- Existing Monitoring Well
- Proposed Monitoring Well
- Soil Boring - Remedial Investigation
- Soil Boring - Geotechnical Investigation
- Test Pit - Remedial Investigation
- Test Pit - Geotechnical Investigation
- Surface Soil Sample
- Sediment/Surface Water Sample
- Property Line
- Limits of Thomas Creek

D

1" = 80'
80' 40' 0' 80'

Notes:
1. The geotechnical investigation Soil Borings 1 - 12 and Test Pits 1 - 8 will be completed prior to the BCP Remedial Investigation.
2. Outside of site boundary, the location of Thomas Creek is estimated.

Source:
1. Schultz Associates, 2023, Map of a Survey of 80 Lyndon Road, Town of Perinton, County of Monroe, New York.
2. Aerial imagery provided by Schultz Associates, 2020.

DRAWING BY	RB
CHECKED	JE
APPROVED	JB

PROPOSED SEDIMENT & SURFACE WATER SAMPLES LOCATIONS

80 LYNDON ROAD
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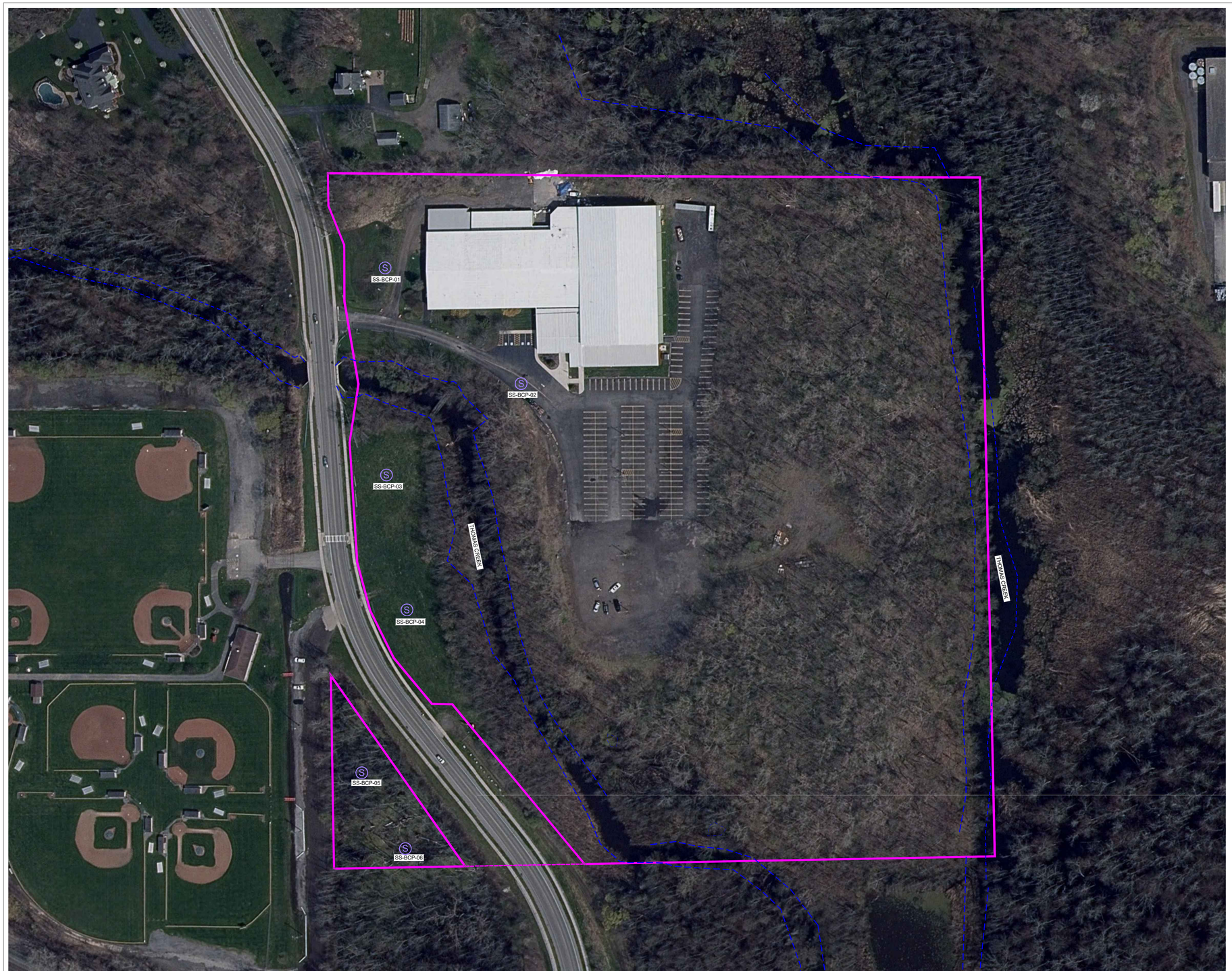
FIGURE 6

DRAWING NUMBER
REMEDIAL INVESTIGATION WORKPLAN



N

Legend:
- Existing Monitoring Well
- Proposed Monitoring Well
- Soil Boring - Remedial Investigation
- Soil Boring - Geotechnical Investigation
- Test Pit - Remedial Investigation
- Test Pit - Geotechnical Investigation
- Surface Soil Sample
- Sediment/Surface Water Sample
- Property Line
- Limits of Thomas Creek

D

1" = 80'
80' 40' 0' 80'

Notes:
1. The geotechnical investigation Soil Borings 1 - 12 and Test Pits 1 - 8 will be completed prior to the BCP Remedial Investigation.
2. Outside of site boundary, the location of Thomas Creek is estimated.

Source:
1. Schultz Associates, 2023, Map of a Survey of 80 Lyndon Road, Town of Perinton, County of Monroe, New York.
2. Aerial imagery provided by Schultz Associates, 2020.

DRAWING BY	RB
CHECKED	JE
APPROVED	JB

PROPOSED SURFACE SOIL SAMPLE LOCATIONS

80 LYNDON ROAD
FAIRPORT, NEW YORK 14450

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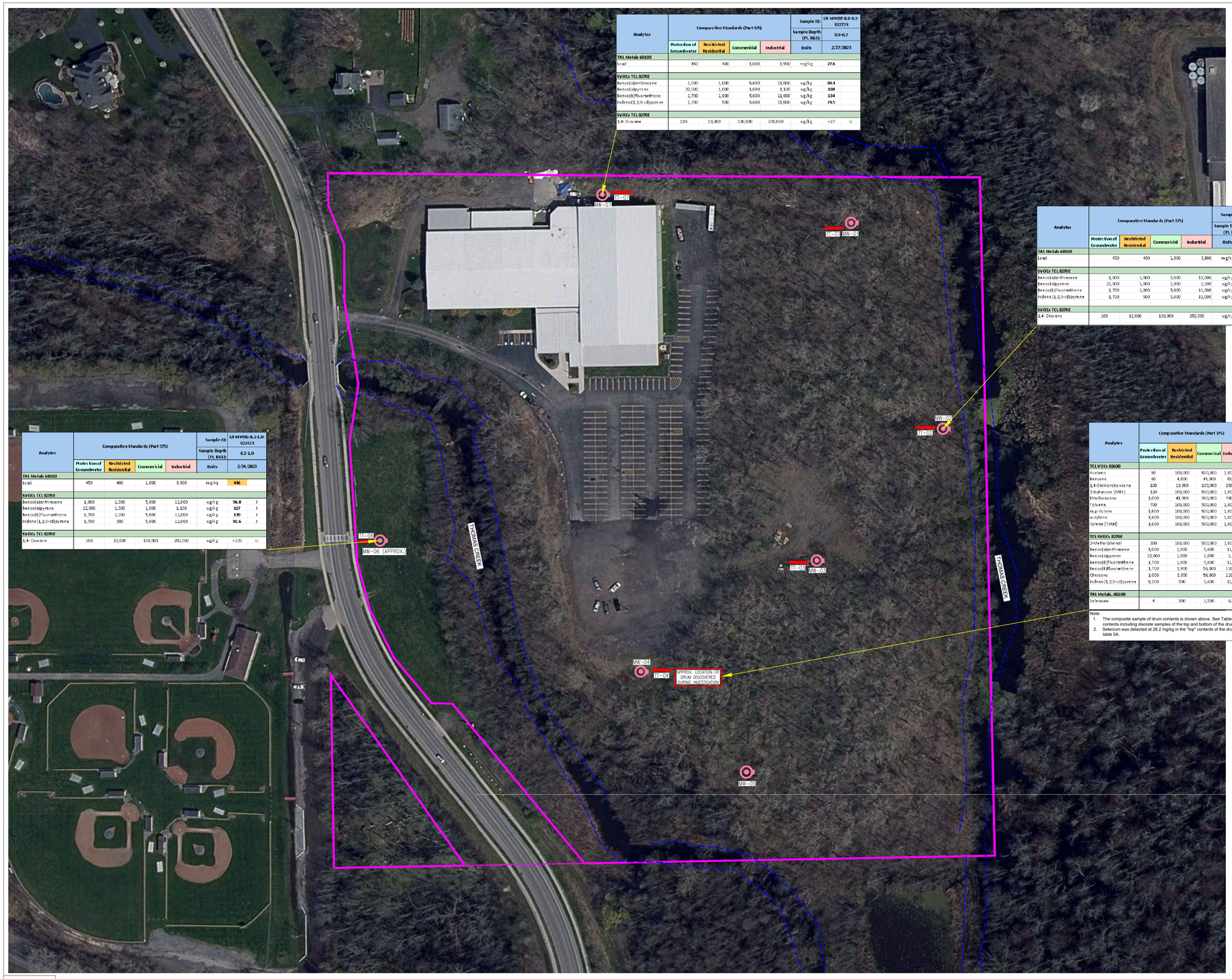
FIGURE 7

DRAWING NUMBER
REMEDIAL INVESTIGATION WORKPLAN



Analytes	Comparative Standards (Part 375)				Sample ID:	LR-MW06-0.2-1.0-032423
					Sample Depth (Ft. BGS):	0.2-1.0
	Protection of Groundwater	Restricted Residential	Commercial	Industrial	Units	2/24/2023
TAL Metals 6010D						
Lead	450	400	1,000	3,900	mg/kg	**446**
SVOCs TCL 8270E						
Benzo(a)anthracene	1,000	1,000	5,600	11,000	ug/kg	**96.8** J
Benzo(a)pyrene	22,000	1,000	1,000	1,100	ug/kg	**117** J
Benzo(b)fluoranthene	1,700	1,000	5,600	11,000	ug/kg	**139** J
Indeno(1,2,3-cd)pyrene	1,700	500	5,600	11,000	ug/kg	**95.6** J
SVOCs TCL 8270E						
1,4- Dioxane	100	13,000	130,000	250,000	ug/kg	<120 U

Analytes	Comparative Standards (Part 375)				Sample ID:	LR-MW07-0.2-1.0-032723
					Sample Depth (Ft. BGS):	0.2-1.0
	Protection of Groundwater	Restricted Residential	Commercial	Industrial	Units	2/27/2023
TAL Metals 6010D						
Lead	450	400	1,000	3,900	mg/kg	**27.6**
SVOCs TCL 8270E						
Benzo(a)anthracene	1,000	1,000	5,600	11,000	ug/kg	**84.4**
Benzo(a)pyrene	22,000	1,000	1,000	1,100	ug/kg	**108**
Benzo(b)fluoranthene	1,700	1,000	5,600	11,000	ug/kg	**134**
Indeno(1,2,3-cd)pyrene	1,700	500	5,600	11,000	ug/kg	**74.5**
SVOCs TCL 8270E						
1,4- Dioxane	100	13,000	130,000	250,000	ug/kg	<27 U

Analytes	Comparative Standards (Part 375)				Sample ID:	LR-TT02-0.2-1.0-030223
					Sample Depth (Ft. BGS):	0.2-1.0
	Protection of Groundwater	Restricted Residential	Commercial	Industrial	Units	3/2/2023
TAL Metals 6010D						
Lead	450	400	1,000	3,900	mg/kg	**207**
SVOCs TCL 8270E						
Benzo(a)anthracene	1,000	1,000	5,600	11,000	ug/kg	**161**
Benzo(a)pyrene	22,000	1,000	1,000	1,100	ug/kg	**150**
Benzo(b)fluoranthene	1,700	1,000	5,600	11,000	ug/kg	**204**
Indeno(1,2,3-cd)pyrene	1,700	500	5,600	11,000	ug/kg	**109**
SVOCs TCL 8270E						
1,4- Dioxane	100	13,000	130,000	250,000	ug/kg	<27 U

Analytes	Comparative Standards (Part 375)				Sample ID:	LR-TT04-DRUM-COMP-030823
					Description:	Drum Sample
	Protection of Groundwater	Restricted Residential	Commercial	Industrial	Units	3/10/2023
TCL VOCs 8260B						
Acetone	50	100,000	500,000	1,000,000	ug/kg	**9,030**
Benzene	60	4,800	44,000	89,000	ug/kg	**195**
1,4-Dichlorobenzene	130	13,000	130,000	250,000	ug/kg	<74 U
2-Butanone (MEK)	120	100,000	500,000	1,000,000	ug/kg	**941,000**
Ethylbenzene	1,000	41,000	390,000	780,000	ug/kg	**387,000**
Toluene	700	100,000	500,000	1,000,000	ug/kg	**1,130,000**
m,p-Xylene	1,600	100,000	500,000	1,000,000	ug/kg	**2,250,000**
o-Xylene	1,600	100,000	500,000	1,000,000	ug/kg	**710,000**
Xylene (Total)	1,600	100,000	500,000	1,000,000	ug/kg	**2,960,000**
TCL SVOCs 8270E						
2-Methylphenol	330	100,000	500,000	1,000,000	ug/kg	<50 U
Benzo(a)anthracene	1,000	1,000	5,600	11,000	ug/kg	**4,230**
Benzo(a)pyrene	22,000	1,000	1,000	1,100	ug/kg	**4,660**
Benzo(b)fluoranthene	1,700	1,000	5,600	11,000	ug/kg	**5,100**
Benzo(k)fluoranthene	1,700	3,900	56,000	110,000	ug/kg	**2,130**
Chrysene	1,000	3,900	56,000	110,000	ug/kg	**4,030**
Indeno(1,2,3-cd)pyrene	8,200	500	5,600	11,000	ug/kg	**3,520**
TAL Metals, 6010D						
Selenium	4	100	1,500	6,800	mg/kg	<12 U

Note:
1. The composite sample of drum contents is shown above. See Table 5A for full analytical characterization of drum contents including discrete samples of the top and bottom of the drum contents.
2. Selenium was detected at 26.2 mg/kg in the "top" contents of the drum (Sample No. LR-TT04-DRUM-TOP) in table 5A.

Legend:
- Existing Monitoring Well
- Proposed Monitoring Well
- Soil Boring - Remedial Investigation
- Soil Boring - Geotechnical Investigation
- Test Pit - Remedial Investigation
- Test Pit - Geotechnical Investigation
- Test Pit - Completed by Ramboll, March 2023
- Surface Soil Sample
- Sediment/Surface Water Sample
- Property Line
- Limits of Thomas Creek

N

D

1" = 80'
80' 40' 0' 80'

Notes:
1. Outside of site boundary, the location of Thomas Creek is estimated.
2. Test trench and water/sediment sample locations are approximate.

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2. Aerial imagery provided by Schultz Associates, 2020.
3. Data reported from Site Characterization For Lyndon Road Landfill (Ramboll, 2023).

DRAWING BY	RB
CHECKED	JE
APPROVED	JB

SOIL DATA
80 LYNDON ROAD
FAIRPORT, NEW YORK 14450

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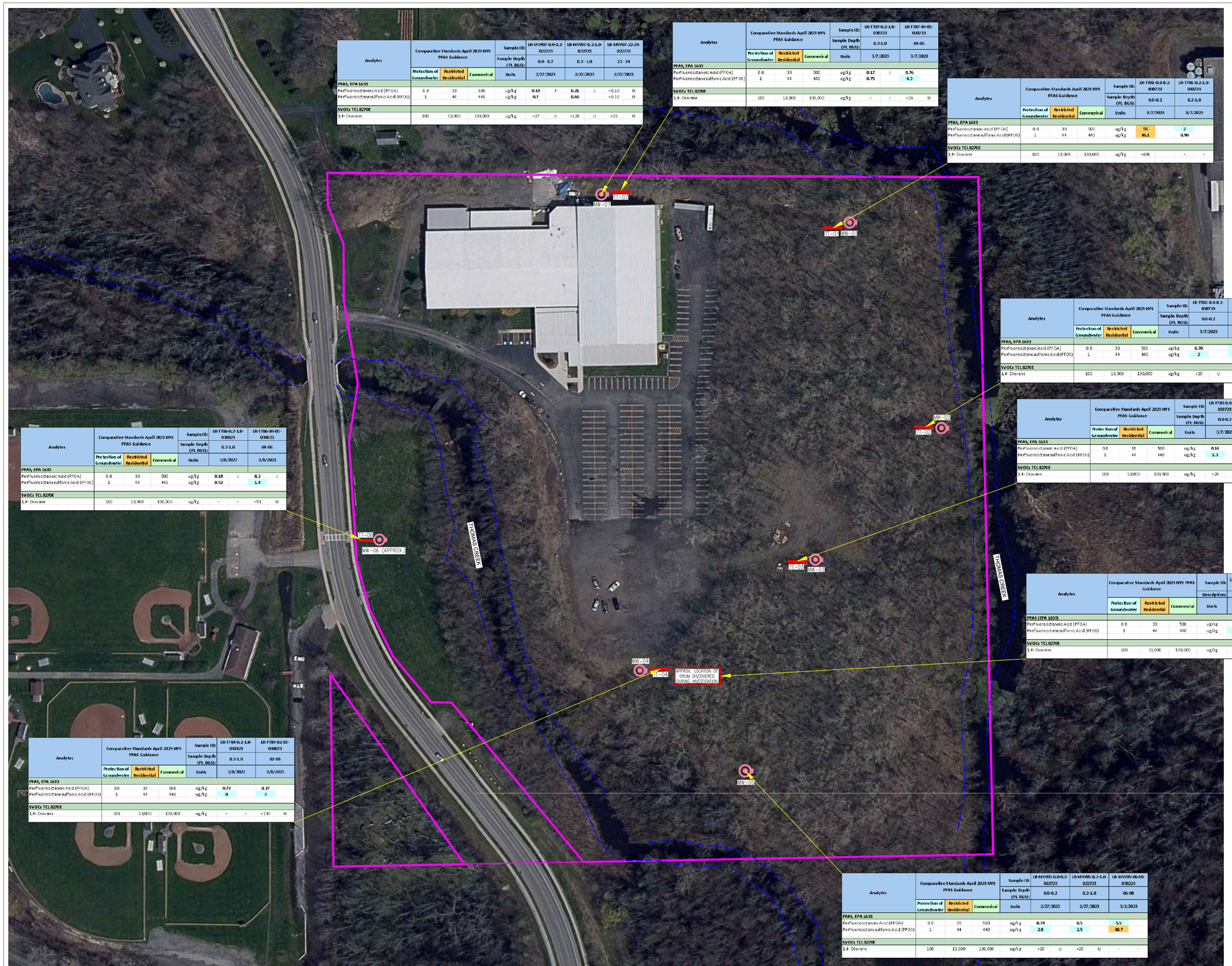
FIGURE 8

DRAWING NUMBER
REMEDIAL INVESTIGATION WORKPLAN



Analytes	Comparative Standards April 2023 NYS PFAS Guidance			Sample ID:	LB-MW07-0.0-0.2-022723		LB-MW07-0.2-1.0-022723		LB-MW07-22-24-022723	
				Sample Depth (Ft. BGS):	0.0 - 0.2		0.2 - 1.0		22 - 24	
	Protection of Groundwater	Restricted Residential	Commercial	Units	2/27/2023		2/27/2023		2/27/2023	
PFAS, EPA 1633										
Perfluorooctanoic Acid (PFOA)	0.8	33	500	ug/kg	**0.14**	J	**0.21**	J	<0.10	U
Perfluorooctanesulfonic Acid (PFOS)	1	44	440	ug/kg	**0.7**		**0.66**		<0.10	U
SVOCs TCL8270E										
1,4- Dioxane	100	13,000	130,000	ug/kg	<27	U	<120	U	<22	U

Analytes	Comparative Standards April 2023 NYS PFAS Guidance			Sample ID:	LB-TT07-0.2-1.0-030723		LB-TT07-04-05-030723	
				Sample Depth (Ft. BGS):	0.2-1.0		04-05	
	Protection of Groundwater	Restricted Residential	Commercial	Units	3/7/2023		3/7/2023	
PFAS, EPA 1633								
Perfluorooctanoic Acid (PFOA)	0.8	33	500	ug/kg	**0.17**	J	**0.76**	
Perfluorooctanesulfonic Acid (PFOS)	1	44	440	ug/kg	**0.75**		**4.3**	
SVOCs TCL8270E								
1,4- Dioxane	100	13,000	130,000	ug/kg	-	-	<26	U

Analytes	Comparative Standards April 2023 NYS PFAS Guidance			Sample ID:	LB-TT01-0.0-0.2-030723		LB-TT01-0.2-1.0-030723	
				Sample Depth (Ft. BGS):	0.0-0.2		0.2-1.0	
	Protection of Groundwater	Restricted Residential	Commercial	Units	3/7/2023		3/7/2023	
PFAS, EPA 1633								
Perfluorooctanoic Acid (PFOA)	0.8	33	500	ug/kg	**55**		**2**	
Perfluorooctanesulfonic Acid (PFOS)	1	44	440	ug/kg	**66.1**		**0.98**	
SVOCs TCL8270E								
1,4- Dioxane	100	13,000	130,000	ug/kg	<690		-	-

Analytes	Comparative Standards April 2023 NYS PFAS Guidance			Sample ID:	LB-TT02-0.0-0.2-030723		LB-TT02-0.2-1.0-030723	
				Sample Depth (Ft. BGS):	0.0-0.2		0.2-1.0	
	Protection of Groundwater	Restricted Residential	Commercial	Units	3/7/2023		3/7/2023	
PFAS, EPA 1633								
Perfluorooctanoic Acid (PFOA)	0.8	33	500	ug/kg	**0.78**		**1**	
Perfluorooctanesulfonic Acid (PFOS)	1	44	440	ug/kg	**2**		**2.4**	
SVOCs TCL8270E								
1,4- Dioxane	100	13,000	130,000	ug/kg	<20	U	<27	U

Analytes	Comparative Standards April 2023 NYS PFAS Guidance			Sample ID:	LB-TT03-0.0-0.2-030723		LB-TT03-0.2-1.0-030723	
				Sample Depth (Ft. BGS):	0.0-0.2		0.2-1.0	
	Protection of Groundwater	Restricted Residential	Commercial	Units	3/7/2023		3/7/2023	
PFAS, EPA 1633								
Perfluorooctanoic Acid (PFOA)	0.8	33	500	ug/kg	**0.14**	J	<0.12	U
Perfluorooctanesulfonic Acid (PFOS)	1	44	440	ug/kg	**1.3**		**0.8**	
SVOCs TCL8270E								
1,4- Dioxane	100	13,000	130,000	ug/kg	<28	U	-	-

Analytes	Comparative Standards April 2023 NYS PFAS Guidance			Sample ID:	LB-TT06-0.2-1.0-030823		LB-TT06-04-05-030823	
				Sample Depth (Ft. BGS):	0.2-1.0		04-05	
	Protection of Groundwater	Restricted Residential	Commercial	Units	3/8/2023		3/8/2023	
PFAS, EPA 1633								
Perfluorooctanoic Acid (PFOA)	0.8	33	500	ug/kg	**0.19**	J	**0.2**	J
Perfluorooctanesulfonic Acid (PFOS)	1	44	440	ug/kg	**0.52**		**1.4**	
SVOCs TCL8270E								
1,4- Dioxane	100	13,000	130,000	ug/kg	-	-	<53	U

Analytes	Comparative Standards April 2023 NYS PFAS Guidance			Sample ID:	LB-TT04-0.2-1.0-030823		LB-TT04-0202-030823	
				Sample Depth (Ft. BGS):	0.2-1.0		02-03	
	Protection of Groundwater	Restricted Residential	Commercial	Units	3/8/2023		3/8/2023	
PFAS, EPA 1633								
Perfluorooctanoic Acid (PFOA)	0.8	33	500	ug/kg	**0.73**		**0.37**	
Perfluorooctanesulfonic Acid (PFOS)	1	44	440	ug/kg	**0**		**3**	
SVOCs TCL8270E								
1,4- Dioxane	100	13,000	130,000	ug/kg	-	-	<130	U

Analytes	Comparative Standards April 2023 NYS PFAS Guidance			Sample ID:	LB-MW05-0.0-0.2-022723		LB-MW05-0.2-1.0-022723		LB-MW05-06-08-030223	
				Sample Depth (Ft. BGS):	0.0-0.2		0.2-1.0		06-08	
	Protection of Groundwater	Restricted Residential	Commercial	Units	2/27/2023		2/27/2023		3/2/2023	
PFAS, EPA 1633										
Perfluorooctanoic Acid (PFOA)	0.8	33	500	ug/kg	**0.74**		**0.5**		**5.5**	
Perfluorooctanesulfonic Acid (PFOS)	1	44	440	ug/kg	**2.8**		**2.5**		**86.7**	
SVOCs TCL8270E										
1,4- Dioxane	100	13,000	130,000	ug/kg	<20	U	<20	U	-	-

Analytes	Comparative Standards April 2023 NYS PFAS Guidance			Sample ID:	LB-TT04-DRUM-COMP-030823
				Sample Depth (Ft. BGS):	Drum Sample
	Protection of Groundwater	Restricted Residential	Commercial	Units	3/10/2023
PFAS (EPA 1633)					
Perfluorooctanoic Acid (PFOA)	0.8	33	500	ug/kg	**0.56**
Perfluorooctanesulfonic Acid (PFOS)	1	44	440	ug/kg	**9.6**
SVOCs TCL8270E					
1,4- Dioxane	100	13,000	130,000	ug/kg	<52 U

Legend:

- Existing Monitoring Well
- Proposed Monitoring Well
- Soil Boring - Remedial Investigation
- Soil Boring - Geotechnical Investigation
- Test Pit - Remedial Investigation
- Test Pit - Geotechnical Investigation
- Test Pit - Completed by Ramboll, March 2023
- Surface Soil Sample
- Sediment/Surface Water Sample
- Property Line
- Limits of Thomas Creek

N

D

1" = 80'

80' 40' 0' 80'

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CHECKED	JE
APPROVED	JB

SOIL DATA - PFAS

80 LYNDON ROAD

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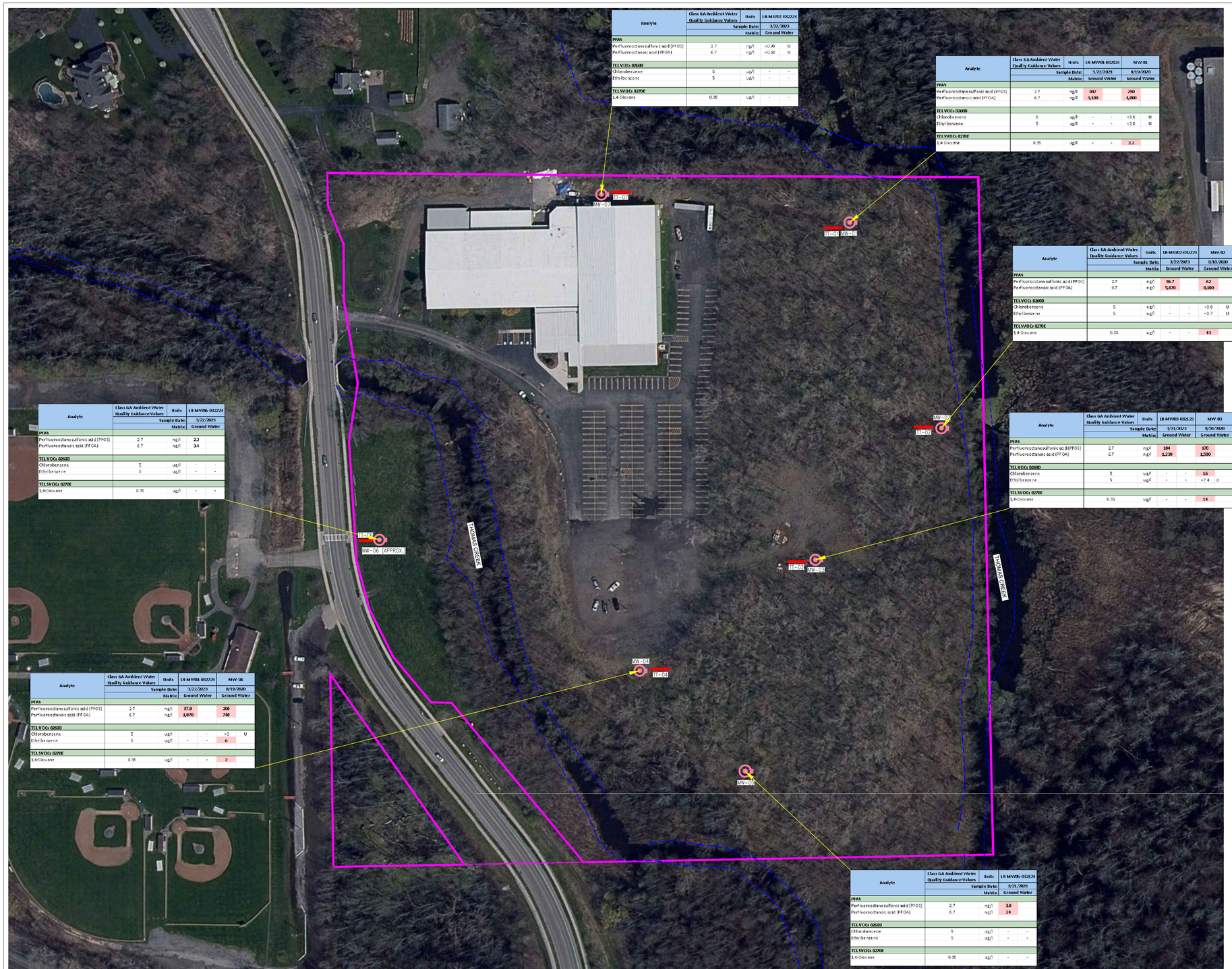
FIGURE 9

DRAWING NUMBER
REMEDIAL INVESTIGATION WORKPLAN



Analyte	Class GA Ambient Water Quality Guidance Values	Units	LR-MW07-052223	
Sample Date:			3/22/2023	
Matrix:			Ground Water	
PFAS				
Perfluorooctane sulfonic acid (PFOS)	2.7	ng/l	<0.99	U
Perfluorooctanoic acid (PFOA)	6.7	ng/l	<0.98	U
TCL VOCs 8260D				
Chlorobenzene	5	ug/l	-	-
Ethylbenzene	5	ug/l	-	-
TCL SVOCs 8270E				
1,4-Dioxane	0.35	ug/l	-	-

Analyte	Class GA Ambient Water Quality Guidance Values	Units	LR-MW01-052323		MW-01	
Sample Date:			3/22/2023		8/19/2020	
Matrix:			Ground Water		Ground Water	
PFAS						
Perfluorooctane sulfonic acid (PFOS)	2.7	ng/l	**867**		**290**	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	**4,100**		**4,800**	
TCL VOCs 8260D						
Chlorobenzene	5	ug/l	-	-	<3.0	U
Ethylbenzene	5	ug/l	-	-	<3.0	U
TCL SVOCs 8270E						
1,4-Dioxane	0.35	ug/l	-	-	**2.2**	

Analyte	Class GA Ambient Water Quality Guidance Values	Units	LR-MW02-052223		MW-02	
Sample Date:			3/22/2023		8/18/2020	
Matrix:			Ground Water		Ground Water	
PFAS						
Perfluorooctane sulfonic acid (PFOS)	2.7	ng/l	**36.7**		**62**	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	**5,470**		**8,100**	
TCL VOCs 8260D						
Chlorobenzene	5	ug/l	-	-	<3.6	U
Ethylbenzene	5	ug/l	-	-	<3.7	U
TCL SVOCs 8270E						
1,4-Dioxane	0.35	ug/l	-	-	**43**	

Analyte	Class GA Ambient Water Quality Guidance Values	Units	LR-MW03-052123		MW-03	
Sample Date:			3/21/2023		8/20/2020	
Matrix:			Ground Water		Ground Water	
PFAS						
Perfluorooctane sulfonic acid (PFOS)	2.7	ng/l	**104**		**170**	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	**1,230**		**1,500**	
TCL VOCs 8260D						
Chlorobenzene	5	ug/l	-	-	**16**	
Ethylbenzene	5	ug/l	-	-	<7.4	U
TCL SVOCs 8270E						
1,4-Dioxane	0.35	ug/l	-	-	**14**	

Analyte	Class GA Ambient Water Quality Guidance Values	Units	LR-MW06-052223	
Sample Date:			3/22/2023	
Matrix:			Ground Water	
PFAS				
Perfluorooctane sulfonic acid (PFOS)	2.7	ng/l	**2.2**	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	**3.4**	
TCL VOCs 8260D				
Chlorobenzene	5	ug/l	-	-
Ethylbenzene	5	ug/l	-	-
TCL SVOCs 8270E				
1,4-Dioxane	0.35	ug/l	-	-

Analyte	Class GA Ambient Water Quality Guidance Values	Units	LR-MW04-052223		MW-04	
Sample Date:			3/22/2023		8/19/2020	
Matrix:			Ground Water		Ground Water	
PFAS						
Perfluorooctane sulfonic acid (PFOS)	2.7	ng/l	**37.8**		**200**	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	**1,070**		**740**	
TCL VOCs 8260D						
Chlorobenzene	5	ug/l	-	-	<3	U
Ethylbenzene	5	ug/l	-	-	**6**	
TCL SVOCs 8270E						
1,4-Dioxane	0.35	ug/l	-	-	**2**	

Analyte	Class GA Ambient Water Quality Guidance Values	Units	LR-MW05-052123	
Sample Date:			3/21/2023	
Matrix:			Ground Water	
PFAS				
Perfluorooctane sulfonic acid (PFOS)	2.7	ng/l	**3.0**	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	**24**	
TCL VOCs 8260D				
Chlorobenzene	5	ug/l	-	-
Ethylbenzene	5	ug/l	-	-
TCL SVOCs 8270E				
1,4-Dioxane	0.35	ug/l	-	-

N

Legend:
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- Soil Boring - Geotechnical Investigation
- Test Pit - Remedial Investigation
- Test Pit - Geotechnical Investigation
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- Sediment/Surface Water Sample
- Property Line
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D

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DRAWING BY	RB
CHECKED	JE
APPROVED	JB

GROUNDWATER DATA
80 LYNDON ROAD
FAIRPORT, NEW YORK 14450

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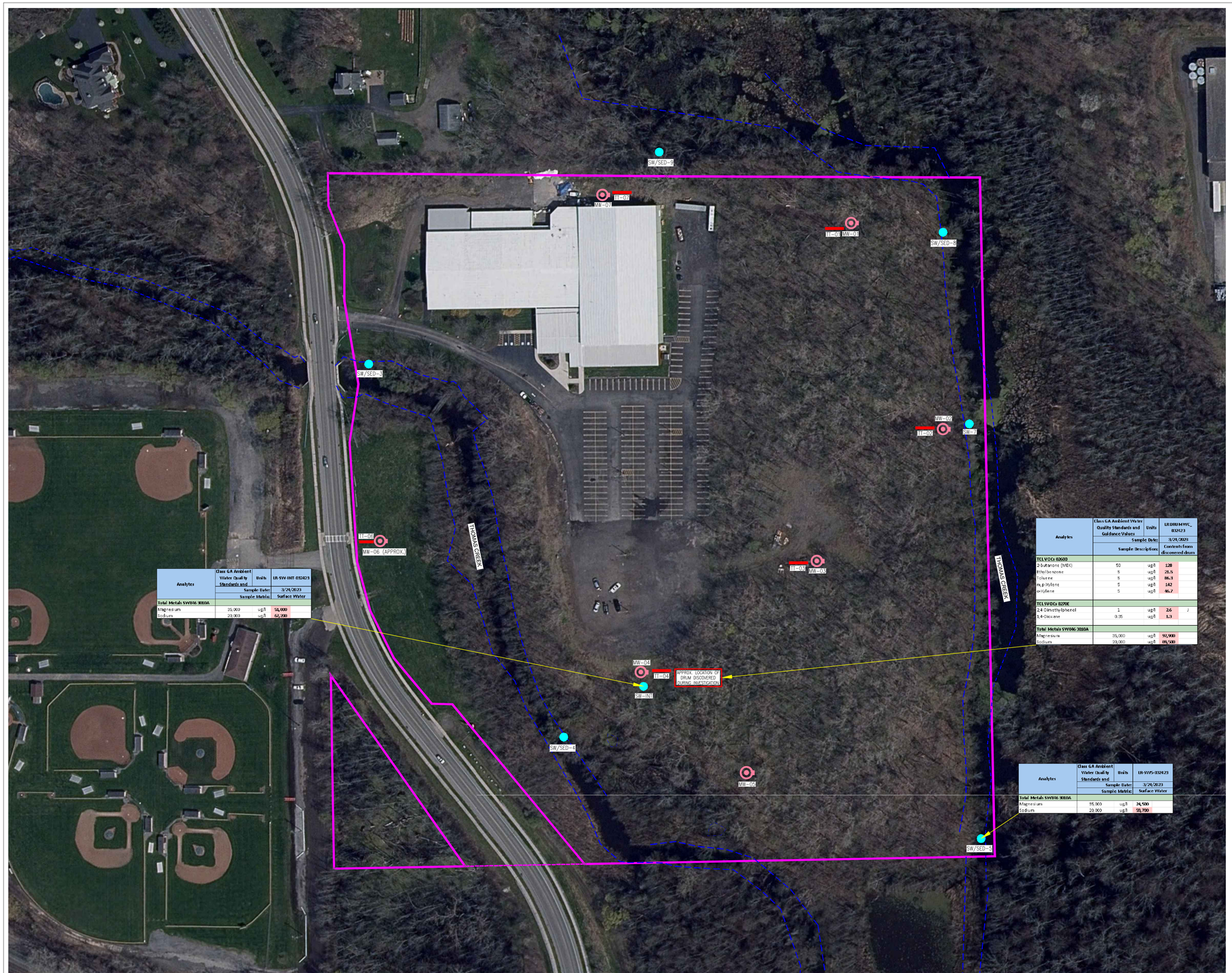
FIGURE 10

DRAWING NUMBER
REMEDIAL INVESTIGATION WORKPLAN



Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	LR-SW-INT-032423
Sample Date:			3/29/2023
Sample Matrix:			Surface Water
Total Metals SW846 3010A			
Magnesium	35,000	ug/l	54,000
Sodium	20,000	ug/l	65,200

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	LR-DRM-MWC_032023
Sample Date:			3/29/2023
Sample Description:			Contents from discovered drum
TCL VOCs 8260D			
2-Butanone (MEK)	50	ug/l	120
Ethylbenzene	5	ug/l	21.5
Toluene	5	ug/l	86.3
m,p-Xylene	5	ug/l	142
o-Xylene	5	ug/l	46.7
TCL SVOCs 8270E			
2,4-Dimethylphenol	1	ug/l	2.6 J
1,4-Dioxane	0.35	ug/l	1.3
Total Metals SW846 3010A			
Magnesium	35,000	ug/l	99,900
Sodium	20,000	ug/l	89,500

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	LR-SW5-032423
Sample Date:			3/29/2023
Sample Matrix:			Surface Water
Total Metals SW846 3010A			
Magnesium	35,000	ug/l	24,500
Sodium	20,000	ug/l	59,700

N

Legend:

- Existing Monitoring Well
- Proposed Monitoring Well
- Soil Boring - Remedial Investigation
- Soil Boring - Geotechnical Investigation
- Test Pit - Remedial Investigation
- Test Pit - Geotechnical Investigation
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CHECKED	JE
APPROVED	JB

SURFACE WATER DATA

80 LYNDON ROAD

FAIRPORT, NEW YORK 14450

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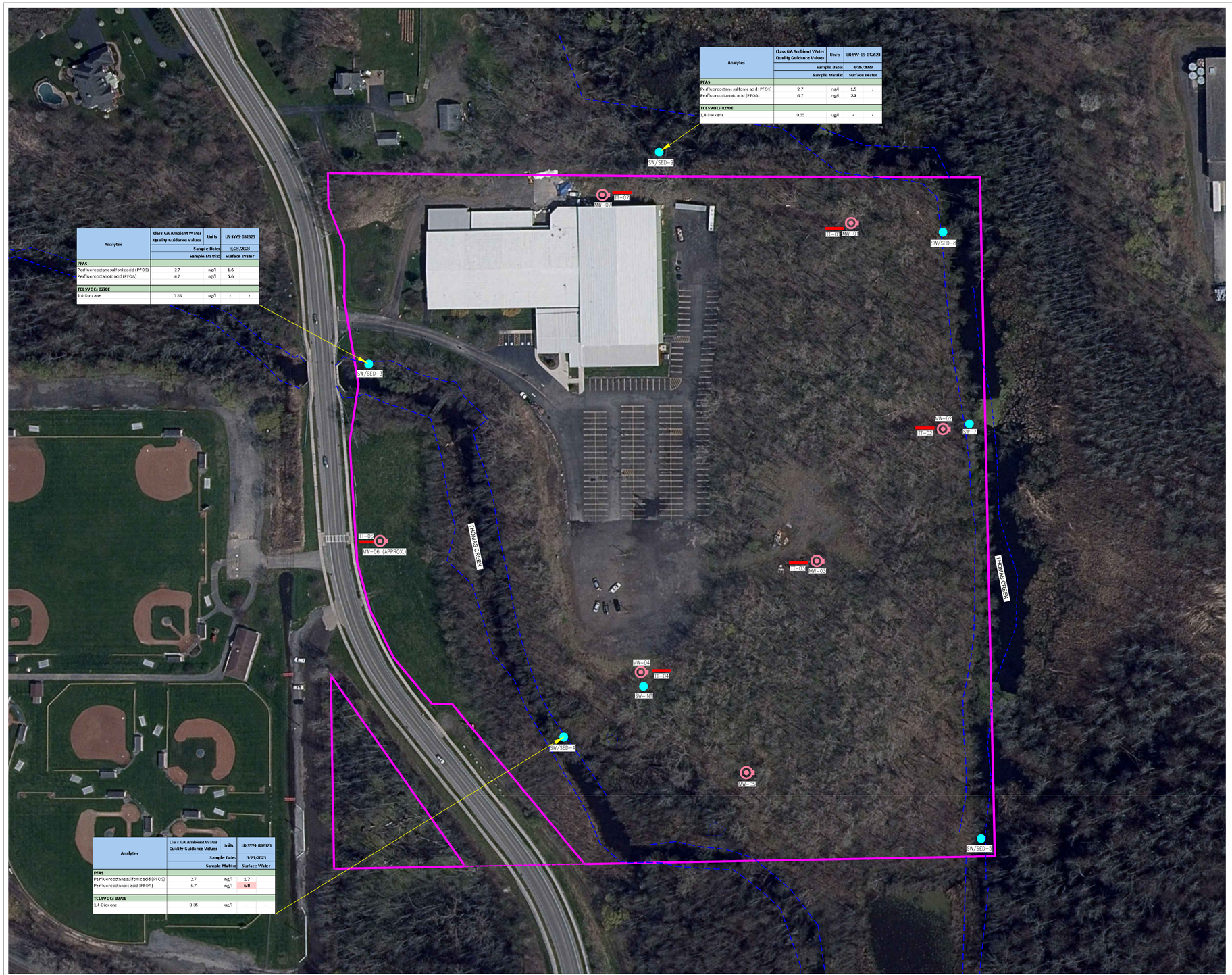
FIGURE 11

DRAWING NUMBER
REMEDIAL INVESTIGATION WORKPLAN



Analytes	Class GA Ambient Water Quality Guidance Values	Units	LR-SW3-032323	
	Sample Dates:		3/23/2023	
	Sample Matrix:		Surface Water	
PFAS				
Perfluorooctane sulfonic acid (PFOS)	2.7	ng/l	1.6	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	5.6	
TCL SVOCs 8270E				
1,4-Dioxane	0.35	ug/l	-	-

Analytes	Class GA Ambient Water Quality Guidance Values	Units	LR-SW4-032323	
	Sample Dates:		3/23/2023	
	Sample Matrix:		Surface Water	
PFAS				
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	4.7	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	6.8	
TCL SVOCs 8270E				
1,4-Dioxane	0.35	ug/l	-	-

Analytes	Class GA Ambient Water Quality Guidance Values	Units	LR-SW9-032623	
	Sample Dates:		3/26/2023	
	Sample Matrix:		Surface Water	
PFAS				
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	1.5	J
Perfluorooctanoic acid (PFOA)	6.7	ng/l	2.7	
TCL SVOCs 8270E				
1,4-Dioxane	0.35	ug/l	-	-

N

Legend:

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- Soil Boring - Geotechnical Investigation
- Test Pit - Remedial Investigation
- Test Pit - Geotechnical Investigation
- Test Pit - Completed by Ramboll, March 2023
- Surface Soil Sample
- Sediment/Surface Water Sample
- Sediment/Surface Water Sample Completed by Ramboll, March 2023
- Property Line
- Limits of Thomas Creek

D

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DRAWING BY	RB
CHECKED	JE
APPROVED	JB

SURFACE WATER DATA - PFAS

80 LYNDON ROAD
FAIRPORT, NEW YORK 14450

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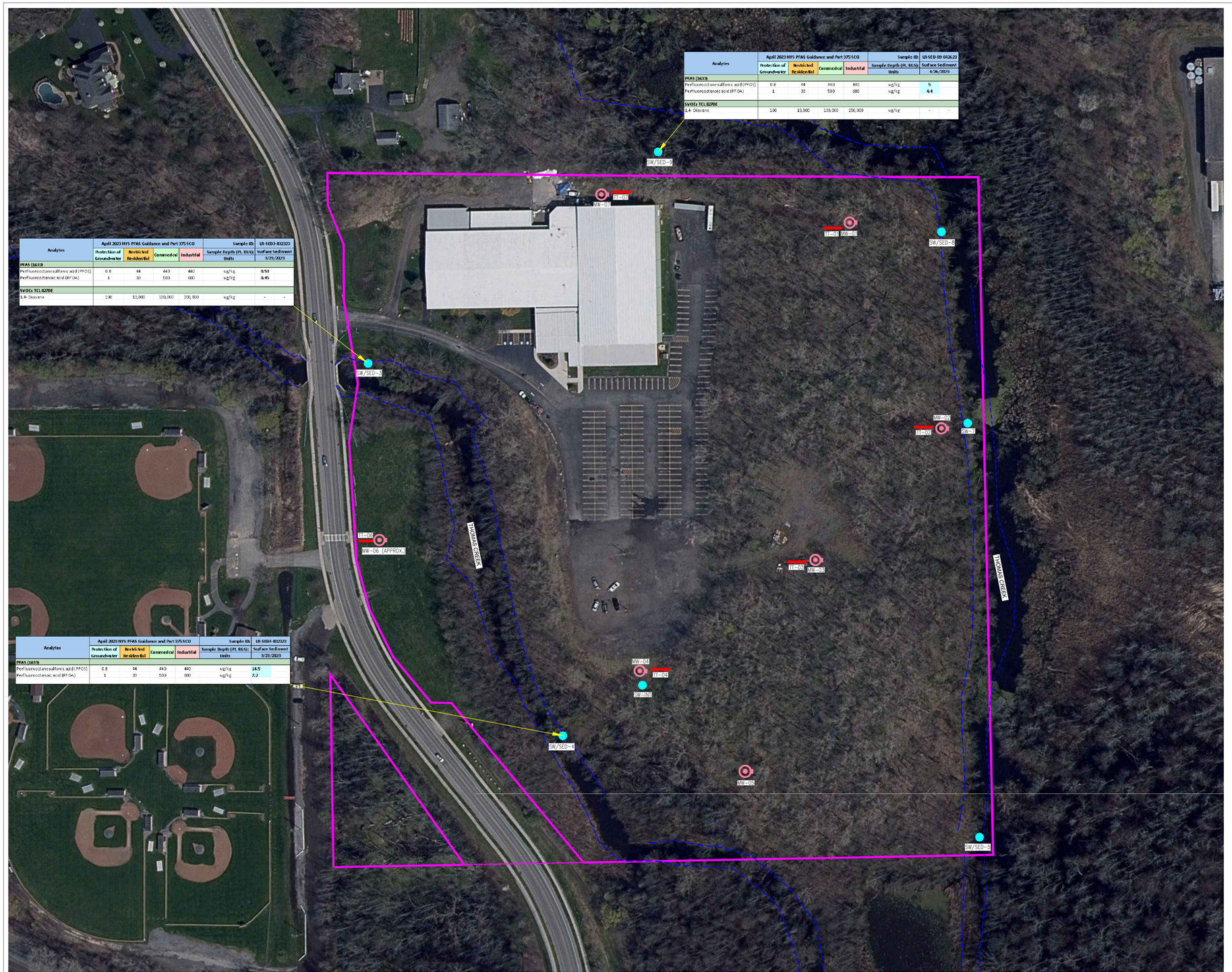
FIGURE 12

DRAWING NUMBER
REMEDIAL INVESTIGATION WORKPLAN



Analytes	April 2023 NYS PFAS Guidance and Part 375 SCO				Sample ID:	LB-SED-09-042623
	Protection of Groundwater	Restricted Residential	Commercial	Industrial	Sample Depth (Ft. BGS):	Surface Sediment
					Units	4/26/2023
PFAS (1633)						
Perfluorooctanesulfonic acid (PFOS)	0.8	44	440	440	ug/kg	5
Perfluorooctanoic acid (PFOA)	1	33	590	600	ug/kg	4.4
SVOCs TCL 8270E						
1,4- Dioxane	100	13,000	130,000	250,000	ug/kg	-

Analytes	April 2023 NYS PFAS Guidance and Part 375 SCO				Sample ID:	LB-SED-032323
	Protection of Groundwater	Restricted Residential	Commercial	Industrial	Sample Depth (Ft. BGS):	Surface Sediment
					Units	3/23/2023
PFAS (1633)						
Perfluorooctanesulfonic acid (PFOS)	0.8	44	440	440	ug/kg	0.93
Perfluorooctanoic acid (PFOA)	1	33	590	600	ug/kg	0.45
SVOCs TCL 8270E						
1,4- Dioxane	100	13,000	130,000	250,000	ug/kg	-

Analytes	April 2023 NYS PFAS Guidance and Part 375 SCO				Sample ID:	LB-SED-032323
	Protection of Groundwater	Restricted Residential	Commercial	Industrial	Sample Depth (Ft. BGS):	Surface Sediment
					units	3/23/2023
PFAS (1633)						
Perfluorooctanesulfonic acid (PFOS)	0.8	44	440	440	ug/kg	14.5
Perfluorooctanoic acid (PFOA)	1	33	590	600	ug/kg	7.2

N

Legend:

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- Test Pit - Geotechnical Investigation
- Test Pit - Completed by Ramboll, March 2023
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- Sediment/Surface Water Sample
- Sediment/Surface Water Sample Completed by Ramboll, March 2023
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DRAWING BY	RB
CHECKED	JE
APPROVED	JB

SEDIMENT DATA - PFAS

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FIGURE 13

DRAWING NUMBER

REMEDIAL INVESTIGATION WORKPLAN

Appendix A - Quality Assurance Project Plan

INVENTUM ENGINEERING, P.C.

Quality Assurance Project Plan

80 Lyndon Road, LLC.

Brownfield Cleanup Program Site

80 Lyndon Road

Fairport, NY 14150

August 29, 2024

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1 Introduction

The purpose of this Quality Assurance Project Plan (QAPP) is to serve as a guidance document during implementation of the Remedial Investigation (RI) for 80 Lyndon Road, LLC., The Brownfield Cleanup Program Site (BCP Site) is located at 80 Lyndon Road in Fairport, Monroe County, New York. The RI will be conducted in accordance with the executed BCP Agreement between the New York Statement Department of Environmental Conservation (NYSDEC) and 80 Lyndon Road, LLC.

This QAPP is designed to provide an overview of Quality Assurance/Quality Control (QA/QC) procedures. Specific methods and QA/QC procedure for chemical testing of environmental samples obtained from the site as part of the RI Work Plan (RIWP) are defined.

An Inventum Engineering, P.C. (Inventum) Project Manager will be responsible for verifying that QA procedures are followed during the investigation and analysis. This will provide for the valid collection of representative samples. The Project Manager will be in direct contact with the analytical laboratory to ensure that holding times and other QA/QC requirements are met. The selected laboratory will be responsible for overseeing analytical QA/QC activities.

The estimated number of environmental samples and corresponding analytical parameters/methods are provided in Table 1 below. These sample quantities may vary depending on media availability and routine adjustments made during the field work.

Table 1 – Analytical Parameters and Methods

Parameter	EPA Method Reference	Groundwater	Soil / Sediment	Surface Water
Metals	6010C	34	65	
Metals	200.7			6
Volatile Organic Compounds	8260C	34	54	
Volatile Organic Compounds	624.1			6
Semi-Volatile Organic Compounds	8270D	34	65	
Semi-Volatile Organic Compounds	625.1			6
Polychlorinated Biphenyls	8082A		59	
Pesticides	8081B	24	59	6
Herbicides	8151A	24	59	6

1,4 Dioxane	8270SIM	24	65	6
Per- and Polyfluoroalkyl Substances	1633 (draft)	24	65	6
Toxicity Characteristic Leaching Procedure	1311	As Required	As Required	As Required
Field Duplicates		1 per 20 Samples Collected (included in totals above)	1 per 20 Samples Collected (included in totals above)	1 per 20 Samples Collected (included in totals above)
Matrix Spike (MS)/Matrix Spike Duplicate (MSD)		1 per 20 Samples Collected (included in totals above)	1 per 20 Samples Collected (included in totals above)	1 per 20 Samples Collected (included in totals above)
Trip Blanks	8260	One per Volatile Shipment		
Rinsate (Equipment) Blanks	All Sample Parameters Being Collected by use of Non-Disposable Equipment	10% of Total Sampling Program for Non-Disposable Equipment	10% of Total Sampling Program for Non-Disposable Equipment	

The analytical laboratory utilized will be a certified NYSDOH ELAP laboratory for the appropriates categories. The laboratory QA Manager will be responsible for performing project-specific audits and overseeing the quality control data generated.

2 Data Quality Objectives

Data Quality Objectives (DQOs) are qualitative and quantitative statements which specify the quality of data required to support the investigation of the Site. DQOs focus on the identification of the end use of the data to be collected. The project DQOs will be achieved utilizing the definitive data category, as outlined in Guidance for the Data Quality Objectives Process, EPA QA/G-4 (September 1994). All samples will provide definitive data, which are generated using rigorous analytical methods, such as the reference methods approved by the United States Environmental Protection Agency (USEPA). The purpose of this investigation is to establish a baseline of current conditions in order to aid in the development of an Alternatives Analysis (AA) for the BCP Site.

Within the context of the purpose stated above, the project DQOs for data collected during the investigation are:

- To assess the current nature and extent of contamination in groundwater.
- To assess the current nature and extent of contamination in surficial soils.
- To assess the current nature and extent of contamination in subsurface soils.
- To assess the current nature and extent of contamination in surface water and stream sediments.

2.1 QA Objectives for Chemical Data Management

Sample analytical methodology for the media sampled and data deliverables will meet the requirements in the most recent NYSDEC Analytical Services Protocol (ASP). Laboratories will be instructed that completed Sample Preparation and Analysis Summary forms are to be submitted with the analytical data packages. The laboratory will also be instructed that matrix interferences must be cleaned up, to the extent practicable. Data Usability Summary Reports (DUSRs) will be generated. In order to achieve the definitive data category described above, the data quality indicators of precision, accuracy, representativeness, comparability, and completeness will be measured during offsite chemical analysis.

2.1.1 Precision

Precision examines the distribution of the reported values about their mean. The distribution of reported values refers to how different the individual reported values are from the average reported value. Precision may be affected by the natural variation of the matrix or contamination within that matrix, as well as by errors made in field and/or laboratory handling procedures. Precision is evaluated using analyses of a laboratory matrix spike/matrix spike duplicate (for organics) and matrix duplicates (for inorganics), which not only exhibit sampling and analytical precision, but indicate analytical precision through the reproducibility of the analytical results. Relative Percent Difference (RPD) is used to evaluate precision. RPD criteria must meet the method requirements identified in QAPP Section 6.1.

2.1.2 Accuracy

Accuracy measures the analytical bias in a measurement system. Sources of error are the sampling process, field contamination, preservation, handling, sample matrix, sample preparation, and analysis techniques. This data helps to assess the potential concentration contribution from various outside sources. The laboratory objective for accuracy is to equal or exceed the accuracy demonstrated for the applied analytical methods on samples of the same matrix. The percent recovery criterion is used to estimate accuracy based on recovery in the matrix spike/matrix spike duplicate and matrix spike blank samples. The spike and spike duplicate, which will give an indication of matrix effects that may be affecting target compounds is also a good gauge of method efficiency.

2.1.3 Representativeness

Representativeness expresses the degree to which the sample data accurately and precisely represents the characteristics of a population of samples, parameter variations at a sampling point, or environmental conditions. Representativeness is a qualitative parameter, which is most concerned with the proper design of the sampling program or sub-sampling of a given sample. Objectives for representativeness are defined for sampling and analysis tasks and are a function of the investigative objectives. The sampling procedures have been selected with the goal of obtaining representative samples for the media of concern.

2.1.4 Comparability

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. A DQO for this program is to produce data with the greatest practicable degree of comparability. This goal is achieved through using standard techniques to collect and analyze representative samples and reporting analytical results in appropriate units. Complete field documentation will support the assessment of comparability. Comparability is limited by the other parameters (e.g.,

precision, accuracy, representativeness, completeness, comparability), because only when precision and accuracy are known can data sets be compared with confidence. In order for data sets to be comparable, it is imperative that contract-required methods and procedures be explicitly followed.

2.1.5 Completeness

Completeness is defined as a measure of the amount of valid data obtainable from a measurement system compared to the amount that was expected to be obtained under normal conditions. It is important that appropriate QA procedures be maintained to verify that valid data are obtained in order to meet project needs. For the data generated, a goal of 90% is required for completeness (or usability) of the analytical data. If this goal is not met, then NYSDEC, Inventum, and the 80 Lyndon Road project personnel will determine whether the deviations might cause the data to be rejected.

3 Sampling Locations, Custody, Holding Times, and Analysis

Sample locations and procedures are discussed in the RI Scope of Work and the accompanying Tables and Figures of the Site's RIWP. Procedures for chain of custody, holding times and laboratory analyses shall be followed as per SW-846 and as per the laboratory's Quality Assurance Plan. All holding times begin with validated time of sample receipt (VTSR) at the laboratory. The laboratory must meet the method required detection limits which are referenced within the EPA Methods (QAPP Table 1).

In addition, for the emerging contaminants, the laboratory must meet the reporting limits for PFAS specified in the NYSDEC's most recent update to *Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs (April 2023)* of 2 nanograms per liter (ng/L) for aqueous samples and 0.5 micrograms per kilogram (µg/kg) for solids and 0.28 micrograms per liter (µg/L) for 1,4-Dioxane.

4 Calibration Procedures and Frequency

In order to obtain a high level of precision and accuracy during sample processing procedures laboratory instruments must be calibrated properly. Several analytical support areas must be considered so the integrity of standards and reagents is upheld prior to instrument calibration. The following section describes the analytical support areas and laboratory instrument calibration procedures.

4.1 Analytical Support Areas

Prior to generating quality data, several analytical support areas must be considered; these are detailed in the following paragraphs.

- Standard/Reagent Preparation - Primary reference standards and secondary standard solutions shall be obtained from National Institute of Standards and Technology (NIST), or other reliable commercial sources to verify the highest purity possible. The preparation and maintenance of standards and reagents will be accomplished according to the methods referenced. All standards and standard solutions are to be formally documented (i.e., in a logbook) and should identify the supplier, lot number, purity/concentration, receipt/preparation date, preparers name, method of preparation, expiration date, and any other pertinent information. All standard solutions shall be validated prior to use. Care shall be exercised in the proper storage and handling of standard solutions (e.g., separating volatile standards from nonvolatile standards). The laboratory shall continually monitor the quality of the standards and reagents through well documented procedures.

- Balances - The analytical balances shall be calibrated and maintained in accordance with manufacturer specifications. Calibration is conducted with two Class “ASTM" weights that bracket the expected balance use range. The laboratory shall check the accuracy of the balances daily and they must be properly documented in permanently bound logbooks.

- Refrigerators/Freezers - The temperature of the refrigerators and freezers within the laboratory shall be monitored and recorded daily. This will verify that the quality of the standards and reagents is not compromised, and the integrity of the analytical samples is upheld. Appropriate acceptance ranges (2 to 6°C for refrigerators) shall be clearly posted on each unit in service.

- Water Supply System - The laboratory must maintain a sufficient water supply for all project needs. The grade of the water must be of the highest quality (analyte-free) in order to eliminate false-positives from the analytical results. Ultraviolet cartridges or carbon absorption treatments are recommended for organic analyses and ion-exchange treatment is recommended for inorganic tests. Appropriate documentation of the quality of the water supply system(s) will be performed on a regular basis.

4.2 Laboratory Instruments

Calibration of instruments is required to verify that the analytical system is operating properly and at the sensitivity necessary to meet established quantitation limits. Each instrument for organic and inorganic analyses shall be calibrated with standards appropriate to the type of instrument and linear range established within the analytical method(s). Calibration of laboratory instruments will be performed according to specified methods.

In addition to the requirements stated within the analytical methods, the contract laboratory will be required to analyze an additional low-level standard at or near the detection limits. In general, standards will be used that bracket the expected concentration of the samples. This will require the use of different concentration levels, which are used to demonstrate the instrument's linear range of calibration.

Calibration of an instrument must be performed prior to the analysis of any samples and then at periodic intervals (continuing calibration) during the sample analysis to verify that the instrument is still calibrated. If the contract laboratory cannot meet the method required calibration requirements, corrective action shall be taken as discussed in QAPP Section 7. All corrective action procedures taken by the contract laboratory are to be documented, summarized within the case narrative, and submitted with the analytical results.

5 Internal Quality Control Checks

Internal QC checks are used to determine if analytical operations at the laboratory are in control, as well as determining the effect sample matrix may have on data being generated. Two types of internal checks are performed and are described as batch QC and matrix-specific QC procedures. The type and frequency of specific QC samples performed by the contract laboratory will be according to the specified analytical method and project specific requirements. Acceptable criteria and/or target ranges for these QC samples are presented within the referenced analytical methods.

QC results which vary from acceptable ranges shall result in the implementation of appropriate corrective measures, potential application of qualifiers, and/or an assessment of the impact these corrective measures

have on the established data quality objectives. Quality control samples including any project-specific QC will be analyzed are discussed below.

5.1 Batch QC

Method Blanks - A method blank is defined as laboratory-distilled or deionized water that is carried through the entire analytical procedure. The method blank is used to determine the level of laboratory background contamination. Method blanks are analyzed at a frequency of one per analytical batch.

Matrix Spike Blank Samples - A matrix spike blank (MSB) sample is an aliquot of water spiked (fortified) with all the elements being analyzed for calculation of precision and accuracy to verify that the analysis that is being performed is in control. An MSB will be performed for each matrix and organic parameter only.

5.2 Matrix-Specific QC

Matrix Spike Samples - An aliquot of a matrix is spiked with known concentrations of specific compounds as stipulated by the methodology. The matrix spike (MS) and matrix spike duplicate (MSD) are subjected to the entire analytical procedure in order to assess both accuracy and precision of the method for the matrix by measuring the percent recovery and relative percent difference of the two spiked samples. The samples are used to assess matrix interference effects on the method, as well as to evaluate instrument performance. MS/MSDs are analyzed at a frequency of one each per 20 samples per matrix.

Matrix Duplicates - The matrix duplicate (MD) is two representative aliquots of the same sample which are prepared and analyzed identically. The collection of duplicate samples provides for the evaluation of precision both in the field and at the laboratory by comparing the analytical results of two samples taken from the same location. Obtaining duplicate samples from a soil matrix requires homogenization (except for volatile organic compounds) of the sample aliquot prior to filling sample containers, in order to best achieve representative samples. Every effort will be made to obtain replicate samples; however, due to interferences, lack of homogeneity, and the nature of the soil samples, the analytical results are not always reproducible.

Rinsate (Equipment) Blanks - A rinsate blank is a sample of laboratory demonstrated analyte free water passed through and over the cleaned sampling equipment. A rinsate blank is used to indicate potential contamination from ambient air and from sample instruments used to collect and transfer samples. This water must originate from one common source within the laboratory and must be the same water used by the laboratory performing the analysis. The rinsate blank should be collected, transported, and analyzed in the same manner as the samples acquired that day. Rinsate blanks for nonaqueous matrices should be performed at a rate of 10 percent of the total number of samples collected throughout the sampling event. Rinse blanks will not be performed on samples (i.e., groundwater) where dedicated disposable equipment is used.

Trip Blanks - Trip blanks are not required for nonaqueous matrices. Trip blanks are required for aqueous sampling events. They consist of a set of sample bottles filled at the laboratory with laboratory demonstrated analyte free water. These samples then accompany the bottles that are prepared at the lab into the field and back to the laboratory, along with the collected samples for analysis. These bottles are never opened in the field. Trip blanks must return to the lab with the same set of bottles they accompanied to the field. Trip blanks will be analyzed for volatile organic parameters. Trip blanks must be included at a rate of one per volatile sample shipment.

6 Calculation of Data Quality Indicators

6.1 Precision

Precision is evaluated using analyses of a field duplicate and/or a laboratory MS/MSD which not only exhibit sampling and analytical precision but indicate analytical precision through the reproducibility of the analytical results. RPD is used to evaluate precision by the following formula:

$$RPD = \frac{(X1 - X2) \times 100\%}{[(X1 + X2)/2]}$$

Where:

X1= Measured value of sample or matrix spike

X2= Measured value of duplicate or matrix spike duplicate

Precision will be determined through the use of MS/MSD (for organics) and matrix duplicates (for inorganics) analyses.

6.2 Accuracy

Accuracy is defined as the degree of difference between the measured or calculated value and the true value. The closer the numerical value of the measurement comes to the true value or actual concentration, the more accurate the measurement is. Analytical accuracy is expressed as the percent recovery of a compound or element that has been added to the environmental sample at known concentrations before analysis. Analytical accuracy may be assessed through the use of known and unknown QC samples and spiked samples. It is presented as percent recovery. Accuracy will be determined from matrix spike, matrix spike duplicate, and matrix spike blank samples, as well as from surrogate compounds added to organic fractions (i.e., volatiles, semi volatiles, PCB), and is calculated as follows:

$$\text{Accuracy (\%R)} = \frac{(Xs - Xu) \times 100\%}{K}$$

Where:

Xs- Measured value of the spike sample

Xu- Measured value of the unspiked sample

K - Known amount of spike in the sample

6.3 Completeness

Completeness is calculated on a per matrix basis for the project and is calculated as follows:

$$\text{Completeness (\%C)} = \frac{(Xv - Xn) \times 100\%}{N}$$

Where:

Xv- Number of valid measurements

Xn- Number of invalid measurements

N - Number of valid measurements expected to be obtained

7 Corrective Actions

Laboratory corrective actions shall be implemented to resolve problems and restore proper functioning to the analytical system when errors, deficiencies, or out-of-control situations exist at the laboratory. Full documentation of the corrective action procedure needed to resolve the problem shall be filed in the project records, and the information summarized in the case narrative. A discussion of the corrective actions to be taken is presented in the following sections.

7.1 Incoming Samples

Problems noted during sample receipt shall be documented by the laboratory. The Inventum Project Manager shall be contacted immediately for problem resolution. All corrective actions shall be documented thoroughly.

7.2 Sample Holding Times

If any sample extraction and/or analyses exceed method holding time requirements, the Inventum Project Manager shall be notified immediately for problem resolution. All corrective actions shall be documented thoroughly.

7.3 Instrument Calibration

Sample analysis shall not be allowed until all initial calibrations meet the appropriate requirements. All laboratory instrumentation must be calibrated in accordance with method requirements. If any initial/continuing calibration standards exceed method QC limits, recalibration must be performed and, if necessary, reanalysis of all samples affected back to the previous acceptable calibration check.

7.4 Reporting Limits

The laboratory must meet the method required detection limits listed in NYSDEC ASP, 10/95 criteria. If difficulties arise in achieving these limits due to a particular sample matrix, the laboratory must notify Inventum personnel for problem resolution. In order to achieve those detection limits, the laboratory must utilize all appropriate cleanup procedures in an attempt to retain the project required detection limits. When any sample requires a secondary dilution due to high levels of target analytes, the laboratory must document all initial analyses and secondary dilution results. Secondary dilution will be permitted only to bring target analytes within the linear range of calibration. If samples are analyzed at a secondary dilution with no target analytes detected, the Project Manager will be immediately notified so that appropriate corrective actions can be initiated.

7.5 Method QC

All QC method-specified QC samples shall meet the method requirements referenced in the analytical methods. Failure of method-required QC will result in the review and possible qualification of all affected data. If the laboratory cannot find any errors, the affected sample(s) shall be reanalyzed and/or re-extracted/redigested, then reanalyzed within method-required holding times to verify the presence or absence of matrix effects. If matrix effect is confirmed, the corresponding data shall be flagged accordingly using the flagging symbols and criteria. If matrix effect is not confirmed, then the entire batch of samples may have to be reanalyzed and/or re-extracted/redigested, then reanalyzed. Inventum shall be notified as soon as possible to discuss possible corrective actions should unusually difficult sample matrices be encountered.

7.6 Calculation Errors

All analytical results must be reviewed systematically for accuracy prior to submittal. If upon data review calculation and/or reporting errors exist, the laboratory will be required to reissue the analytical data report with the corrective actions appropriately documented in the case narrative.

8 Data Reduction, Validation, and usability

8.1 Data Reduction

Laboratory analytical data are first generated in raw form at the instrument. These data may be either in a graphic or printed tabular format. Specific data generation procedures and calculations are found in each of the referenced. Analytical results must be reported consistently. Identification of all analytes must be accomplished with an authentic standard of the analyte traceable to NIST or USEPA sources. Individuals experienced with a method's particular analysis and knowledgeable of requirements will perform data reduction.

8.2 Data Validation

Data validation is a systematic procedure of reviewing a body of data against a set of established criteria to provide a specified level of assurance of validity prior to its intended use. All analytical samples collected will receive a limited data review. All analytical samples will also receive a third-party verification and validation based on completeness and compliance checks of sample receipt conditions and both sample-related and instrument-related QC results. In addition, a minimum of 10-percent of the samples will also receive third-party recalculations checks and review of actual instrument outputs (i.e. Stage 4). A third-party Data Usability Summary Report (DUSR) will be prepared for all samples collected during the RI. Inventum personnel may recommend further third-party validation if significant deviations and problems with the analytical data are uncovered during completion of the work.

The methods as well as the general guidelines presented in the following documents will be used during the data review USEPA Contract Laboratory Program (CLP) Organic Data Review, SOP Nos. HW-6, Revision #11 and USEPA Evaluation of Metals Data for the Contract Laboratory Program based on 3/90, SOW, Revision XI. These documents will be used with the following exceptions:

- Technical holding times will be in accordance with NYSDEC ASP, 10/95 edition.
- Organic calibration and QC criteria will be in accordance with NYSDEC ASP, 10/95 edition. Data will be qualified if it does not meet NYSDEC ASP, 10/95 criteria.

Where possible, discrepancies will be resolved by the project manager (i.e., no letters will be written to laboratories). A complete analytical data validation is not anticipated. However, if the initial limited data audit reveals significant deviations and problems with the analytical data, project personnel may recommend a complete variation of the data.

Category B deliverables will be provided for all samples collected to delineate the nature and extent of contamination. Electronic Data Deliverables (EDDs) consistent with the most recent NYSDEC Environmental Information Management System (EIMS) format will be included with the deliverables and will be uploaded to the EIMS.

9 References

- Comprehensive Environmental Response Compensation and Liability Act (CERCLA) Quality Assurance Manual, Final Copy, Revision I, October 1989.
- National Enforcement Investigations Center of USEPA Office of Enforcement. NEIC Policies and Procedures. Washington: USEPA.
- New York State Department of Environmental Conservation (NYSDEC). 1995. Analytical Services Protocol, (ASP) 10/95 Edition. Albany: NYSDEC.

Appendix B – Health and Safety Plan

Inventum Engineering, PC
Site-Specific Health and Safety Plan (HASP)

(Required for all Type 2 and 3 projects.)

1. General Information

Client Name: 80 Lyndon Rd., LLC

Project #: 80 Lyndon Road

Project Name: 80 Lyndon Road

Project Manager: John Black, PE

Street Address:
80 Lyndon Road
Fairport, New York 14450

Prepared By: James Edwards

Date: January 5, 2024

Approved By: John Black, P.E.

Date: January 8, 2024
Updated: August 29, 2024

Proposed Date(s) of Work: TBD

Proposed Scope of Work:

Inventum Engineering, PC (Inventum) will be the owner's representative, investigation team and engineer supporting the site management, site investigation(s), and remedial investigation(s) through the New York State Brownfield Cleanup Program (BCP) for 80 Lyndon Rd., LLC located on the former Granger Landfill (Site). The general scope of work is provided below, and tasks will be updated with additional details/specifications as the project progresses through the BCP.

Task 1 - Site Management and Oversight

Inventum will conduct site visits, general management support, and general contractor and subcontractor oversight related to the remedial investigation for the Site. This task includes site visits related to oversight of the RI, but specifically excludes Inventum personnel directly performing any intrusive site work or oversight of contractors/subcontractors performing intrusive site work. Direct intrusive site work and/or intrusive site work oversight is covered under Tasks 2 through 7 below.

Task 2 – Surficial Soil Sampling

Surficial (approximately 0 to 2 feet below ground surface [bgs]) soil samples will be collected from various locations of the Site to establish current conditions. Shallow samples will be collected using a hand-auger, shovel, or trowel and the material will be recovered for lithological characterization and field screening with a PID equipped with a 10.6 eV lamp. All observations and measurements will be logged in the field

notebook. Samples may be collected for various constituents including Metals, Semi-Volatile Organic Compounds (SVOCs), Volatile Organic Compounds (VOCs), Pesticide, Herbicides, Polychlorinated Biphenyls (PCBs), 1,4-Dioxane, and Per- and Polyfluoroalkyl Substances (PFAS).

Task 3 – Subsurface Soil Sampling

Subsurface (> 1 feet bgs) soils samples will be collected from various locations of the Site to establish current conditions. Depending on the depth of sample, subsurface samples may be collected using a hand-auger, shovel, trowel, light or heavy excavating equipment, direct-push equipment, or rotary drilling equipment. Material will be recovered for lithological characterization and field screening with a PID equipped with a 10.6 eV lamp. All observations and measurements will be logged in the field notebook. Samples may be collected for various constituents including Metals, SVOCs, VOCs, PCBs, Pesticide, Herbicides, 1,4-Dioxane, and PFAS.

Task 4 – Surface Water (Stream) and Sediment Sampling

Water and sediment sampling from along Thomas Creek. Surface water and sediment samples will be analyzed for VOCs, SVOCs, Metals, Pesticide, Herbicides, 1,4-Dioxane, and PFAS.

These samples shall be collected in accordance with approved work plans. No personnel will enter the stream to collect samples.

Task 5 – Monitoring Well Installation

New monitoring wells may be installed as part of the investigation(s) and remedial activities. The borings for the wells will be advanced to depth using hollow-stem augers and include the collection of soil samples for lithological characterization and for samples for analytical testing. Unconsolidated material samples will be collected for observation and screening with a photo-ionization detector (PID) equipped with a 10.6 eV lamp in a continuous interval over the total depth of the boring with a split barrel sampler driven through the augers. All lithological observations, field measurements, and well construction details will be logged in the field notebook. Surface and subsurface soil samples may be collected in accordance with Tasks 2 and 3.

The new wells will be completed with a 2-inch diameter Schedule 40 polyvinyl chloride (PVC) well casing and 5-feet of 0.010-inch slotted screen. A sand filter pack will be placed from the bottom of the screened interval to a minimum of 1 foot above the top of the screen. A 2-foot bentonite seal will be placed on top the filter pack and the remaining annular space will be completed with a cement grout (Portland Type I cement with 3 – 5% bentonite). The wells may either be completed flush-to-grade within a traffic rated box or within a steel bollard enclosure that protrudes a minimum of 2-feet above ground surface.

All newly installed wells will be developed prior to sampling and any existing monitoring wells may be redeveloped prior to sampling. The water levels in the monitoring wells will be manually measured using an oil/water interface probe prior to redevelopment and the depth to water, depth and thickness of any Light Non-Aqueous Phase Liquid (LNAPL), and the total depth of the well will be measured and logged in the field notebook. LNAPL is not anticipated based on historical data. The wells will be redeveloped by removing three well volumes, purging the wells until dry, or purging and surging the wells using a submersible pump.

Field parameters (temperature, pH, conductivity, ORP, turbidity) will be measured and logged in the field notebook at least three (3) times during the development process (beginning, middle, and end) using a hand-held water quality monitor. All development water will be containerized and stored in appropriately labeled drums or totes and disposed offsite or treated and discharged in accordance with site permits and applicable local, state, and federal regulations.

Task 6 – Groundwater Monitoring and Sampling

Inspections will be conducted prior to sampling and will include visual observations of the well head, seal, and cover. Measurements of the depth to liquid (if LNAPL is present), depth to water, and the overall total depth of the well will be collected using an oil/water interface probe and recorded in the field notebook for comparison to construction dimensions and previous records.

Monitoring wells will be sampled using a bailer by standard purge methods or peristaltic pump or QED bladder pump following low-flow sampling procedures. Field parameters (temperature, pH, dissolved oxygen, conductivity, ORP, turbidity) will be measured and logged in the field notebook at periodic intervals using a hand-held water quality monitor. All purge water will be containerized and stored in appropriately labeled drums or totes and disposed offsite or treated and discharged in accordance with applicable local, state, and federal regulations.

Samples may be collected for various constituents including Metals, SVOCs, VOCs, Pesticides, Herbicides, Cyanide, 1,4-Dioxane, and PFAS.

Task 7 – Sampling of Residuals

Samples may be collected from possible discovered drums or containers at the BCP Site and from containerized investigation derived waste to characterize contents and prepare profiles for recycling and disposal. To the extent practicable, all samples will be collected from the surface or from equipment outside the accumulation. Samples may be collected installed using a bailer, hand-auger, shovel, trowel, sludge sampler or other long reach equipment. Material will be recovered, and field screened with a PID equipped with a 10.6 eV lamp. All observations and measurements will be logged in the field notebook.

Inventum Engineering, PC
Site-Specific Health and Safety Plan (HASP)

(Required for all Type 2 and 3 projects.)

Samples may be collected for various constituents including Metals, SVOCs, VOCs, PCBs, hazardous characteristics, pH and water content.

Inventum Role(s) On Site:

☐ Inventum Staff Will Not Be On Site (HASP and Risk Analysis is for subcontractor information only)

☒ Resident Project Representative (*e.g.,* "Observe and Document")

☐ Construction Manager (*e.g.,* CM, Managing/General Contractor)

☒ Representative for Client (*e.g.,* "Agent for Owner")

☒ General On-site Consulting/Engineering Services

☒ Other

☒ Soil Sampling	☒ Solid Waste Sampling	☒ Liquid Waste Sampling
☒ Groundwater Sampling	☒ Surface Water Sampling	☒ Wastewater Sampling
☒ Sediment Sampling	☐ Surveying	☐ Confined Space Entry

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Major Project Tasks	Inventum Task	Subcontractor Task	Minimum PPE Level Required see HASP for details (suggested levels for Subcontractor work)
1. Site Management and Oversight	☒	☐	☐ N/A ☒ D ☐ C ☐ B ☐ A
2. Surficial Soil Sampling	☒	☒	☐ N/A ☒ D ☐ C ☐ B ☐ A
3. Subsurface Soil Sampling	☒	☒	☐ N/A ☒ D ☐ C ☐ B ☐ A
4. Permit Compliance Water and Wastewater Sampling	☒	☒	☐ N/A ☒ D ☐ C ☐ B ☐ A
5. Monitoring Well Abandonment	☒	☒	☐ N/A ☒ D ☐ C ☐ B ☐ A
6. Monitoring Well Installation	☒	☒	☐ N/A ☒ D ☐ C ☐ B ☐ A
7. Groundwater Monitoring and Sampling	☒	☒	☐ N/A ☒ D ☐ C ☐ B ☐ A
8. Sampling of Residuals	☒	☒	☐ N/A ☒ D ☐ C ☐ B ☐ A

2. Contingency Planning

LOCAL EMERGENCY RESOURCES:	
Ambulance: 911	Emergency Room: 585.922.2000 (non-emergency)
Police: 911	Fire Department: 911
NYSDEC Contact: Pending	Poison Control Center: 800.222.1222 ☐ Specify:
Other (client services offered, etc.):	

SITE RESOURCES:			
Drinking Water Supply	☐ Inventum	☐ Subcontractor	☒ Client
Wash Water Supply	☐ Inventum	☐ Subcontractor	☒ Client
Telephone – Land Line		☐ Subcontractor	☒ Client
Telephone - Cellular	☒ Inventum	☐ Subcontractor	
First Aid Kit	☒ Inventum	☒ Subcontractor	
Fire Extinguisher	☐ Inventum	☒ Subcontractor	☒ Client
Emergency Shower **N/A**	☐ Inventum	☐ Subcontractor	☐ Client
Eye Wash **N/A**	☐ Inventum	☐ Subcontractor	☐ Client
Other: Confined space retrieval device **N/A**	☐ Inventum	☐ Subcontractor	☐ Client

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

EMERGENCY/SAFETY CONTACTS:	
Inventum Technical Contacts	John Black (571.217.6761); Todd Waldrop (571.217.3627); James Edwards (571.232.5048)
Inventum Project Manager (PM): John Black	571.217.6761
Inventum Office Safety Coordinator (OSC)	John Black (571.217.6761); Todd Waldrop (571.217.3627); James Edwards (571.232.5048)
Inventum Field Contact:	John Black (571.217.6761); Todd Waldrop (571.217.3627); James Edwards (571.232.5048); Roxanne Birx (585.734.5255); Peter Zaffram (716.553.5129); Corey Bryerton (716.720.3256)
Contractor Contact (To Vary – Main Remedial Contractor provided):	Pending – not yet selected
Client Contact:	Swan O'Donnell (585.606.1679)
Facility (Rochester Ice Center)	585.223.2160

Emergency Route:

Hospitals or clinics identified for emergency medical care should be contacted, to verify that emergency care is provided at that location. Verify the exact location of the medical facility during this call. See directions and map of route to Rochester General Hospital on the following page:

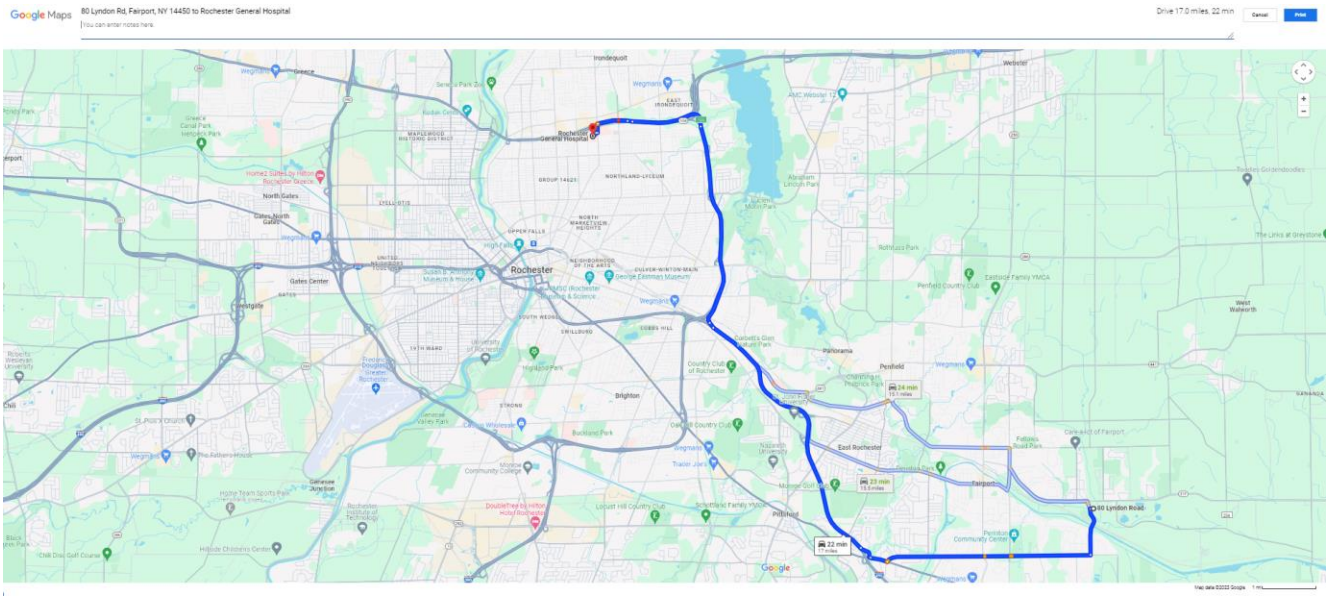
Hospital: **Rochester General Hospital**
1425 Portland Ave
Rochester, NY 14621
585.922.2000

Other: NA

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Map to Hospital



Directions to Hospital:

- Turn Left (South) onto Lyndon Road
- Turn Right onto Ayrault Road (0.9 miles)
- Turn Right onto NY-31 W/Palmyra Road/Pittsford Palmyra Road (3.8 miles)
- Use Right Lane to Merge onto I-490 West (0.4 miles)
- Exit at Exit 21 for NY-590 North (5.3 miles)
- Keep Right at the fork following signs for State Route 590 North and Merge onto NY-590 North
- Using Right two lane, take Exit 10A to Merge onto NY-104 West (3.7 miles)
- Take the Exit toward Goodman St/Portland Ave (1.5 miles)
- Merge onto NY-104 Service Road West
- Use the Middle Lane to Turn Left onto Portland Ave (0.6 miles)
- Turn Right onto Rochester General Hospital Drive (0.2 miles)
- Turn Left into Rochester General Hospital

Emergency Procedures:

If an emergency develops at the site, the first responder should take the following course of action:

- Notify the proper emergency services for assistance.
- Notify other personnel at the site.
- As soon as possible, contact the Inventum Project Manager to inform them of the incident.
- Complete the Inventum Incident Report Form (see Appendices) within 24 hours of the incident and client notifications, as required.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Investigation of Near Miss Incident and Initial Report of Incident/Exposure:

Inventum employees are required to report any incident, near miss, or injury, as soon as possible, by contacting the following:

☒ Inventum Managing Partner ☒ Notify supervisor ☐ Notify project manager

☐ Notify Site Manager () ☐ Complete client report: as required

(name):

(phone number):

Emergency Equipment Required On Site:

☒ First Aid Kit

☐ Emergency Eye Wash

☐ Emergency Shower

☐ Fire Extinguisher

☐ Spill Control Media

☐ Tripod/Hoist/Harness for non-entry confined space rescue

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

3. Site Classification

	Identification of Potential Hazards	YES	NO	SITE TYPE[(1)]
1.	Is the work a Phase I ESA (i.e., supervised plant walk-through, etc.)?	☒	☐	1
2.	Is the work being performed solely by a subcontractor (i.e., INVENTUM not on site)?	☐	☒	1
3.	Is the work just a supervised inspection for process evaluation, other inspections, meetings, records review, or a tour?	☒	☐	1
4.[1]	Is the work completely absent of any chemical, physical, biological, or radiological hazards which would require a site-specific health and safety plan?	☐	☒	1
5.	Does the work include any mandatory client H&S requirements?	☒	☐	1, 2, or 3
6.	Does the project include on-site work other than office type areas?	☒	☐	2 or 3
7.	Does the proposed work scope involve any of the following:			
	Known and controlled chemical or biological hazards	☒	☐	2
	Unprotected work at elevation (fall protection required)	☐	☒	2
	Invasive activities (*i.e.,* Phase II ESA, UST Removal, sampling, etc.)	☒	☐	2 or 3
	Exposure to ionizing radiation (i.e., using nuclear gauges, etc.)	☐	☒	2 or 3
	Open excavations/trenches (Competent Person may be required on site)	☒	☐	2 or 3
	Confined space entry (permit may be required)	☐	☒	2 or 3
	The use of scaffolding (qualified inspections are required)	☐	☒	2 or 3
	Heavy equipment	☒	☐	2 or 3
	Facility maintenance (O&M, piping, electrical, lockout/tagout, etc.)	☐	☒	2 or 3
	Underground utilities may be encountered	☒	☐	2 or 3
	Overhead utilities may be encountered	☒	☐	2 or 3
	Stack testing	☐	☒	2 or 3
	Geotechnical drilling	☒	☐	2 or 3
	Demolition Activities with known or suspected contamination	☒	☐	2 or 3
	Unknown or uncontrolled chemical or biological hazards	☐	☒	3
	Known and uncontrolled chemical or biological hazards	☒	☐	3
	Waste sampling	☒	☐	3
	Construction activities with known or suspected contamination	☒	☐	3
	Remedial activities (RCRA, CERCLA, EnviroBlend®, Oxigent, etc.)	☒	☐	3
8.	Is the work regulated by 29 CFR 1910.120 (OSHA) or 30 CFR (MSHA)?	☒	☐	3
9.	Is the work regulated by NPL, CERCLA, RCRA, TSD, or SARA?	☒	☐	3

(1) Denotes typical site level (based on activities).

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Site Type Designation:

☐ **Type 1** Known and controlled hazards associated with consulting/engineering services.

☐ **Type 2** Known and controlled hazards, but with invasive, hazardous activities and/or civil/mechanical construction related services, or sampling.

☒ **Type 3** Unknown and/or uncontrolled hazards associated with corrective action clean-up, and/or remediation of hazardous substances.

4. Site Characterization

Client Requirement(s)[1]:	☒ None	☐ Site Orientation	☐ H&S Orientation
	☐ Permits or Other Requirements (specify and attach, if available):		
Site Information:	☒ Map/Diagram (attach)	☐ Map/Diagram Unavailable	
	☐ Inactive Site	☒ Active Site (specify below)	
General Environmental Concerns:	☒ Contaminated Water	☒ Wastewater	☒ Dust
	☒ Contaminated Soil	☒ Solid Waste	☒ Noise
	☒ Contaminated Air	☒ Waterways	☐ Other:
Site Security/Access Control:	☐ None	☒ On Site	
	☐ Other (explain):		
Amenities Available for Work:	☐ None	☒ Waste Storage	☒ Restrooms
	☐ Tools/Equipment Storage	☐ Office/Trailer Space	☐ Supplies Storage
Utilities Available for Work:	☐ None	☒ As Listed: Water, electric	
Medical Services Available:	☐ None On Site	☒ As Listed: First Aid	
Facility Alarms/Signals:	☒ None	☐ As Listed:	
Traffic/Parking/Railway Issues:	☐ None	☒ As Listed (On-Site/Off-Site): On-site parking	
☐ Permits Required (specify)[2]:	☐ Confined Space Entry	☐ Local:	☐ State:
	☐ Federal:	☐ Other:	☒ N/A
☒ Utility Locate Service(s):	☒ On Site	☐ Client	☐ Other:
	☐ Off Site	☐	☒ One Call
		☐	☐ N/A

[1] If relying on the client for any specific hazard identification and control, implemented control and effectiveness should be documented prior to beginning any work activities. This is recommended for all field projects.

[2] Permit examples: Utilities (electrical, water, gas, etc.); Excavations; Explosives; Cranes; Burning; Fuel storage; Traffic control; Hoists; Cutting; Welding; Demolition; Confined space; Restricted access areas; etc.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Detailed Physical Description of Site/Facility: ☒ **Map/Diagram Attached**

The 80 Lyndon Road site address is 80 Lyndon Road, Fairport, New York and is located in a mixed-use area within the Town of Perinton in Monroe County, New York (Figure 1). The Monroe County Tax Parcel number is Section 154. 030; Block 1; Lot-26 and the total surveyed acreage is 23. 468. Of the total surveyed acreage of 23.468, 0.711 acres of the parcel is located southwest of the main parcel and on the west side of Lyndon Road (County Route 44). The site surveyed boundary is shown on Figure 2.

Surrounding the ice skating facility are 14.42 acres of woodlands, Thomas Creek and 1.71 acres of maintained lawn. Thomas Creek runs parallel to the eastern border and runs parallel to the west side of the property before Thomas Creek wraps around the southern portion of the site before flowing west. Runoff is controlled by an onsite stormwater retention basin. The Site in a mixed use area consisting of undeveloped land, residential, and recreational sport fields.

The BCP Site is bounded to the north by two residential tracts that are approximately 6-7 acres each. To the east, the site borders an undeveloped tract that is zone residential and an undeveloped tract that is zone industrial. An additional undeveloped tract that is zone residential borders the Site to the South. Lyndon Road is along the west side of the Site and to the west of Lyndon Road is the inactive Little League Sanitary Landfill (Solid Waste ID: 28S12 and Inactive Hazardous Waste Number: 828026A, Class N) which is now operational sport fields.

Previous Site Remediation

A Phase II field investigation was conducted and completed in 1991 by Ecology and Environment Engineering, P.C. in conjunction with the adjacent Little League Landfill site (#828026A). This investigation included an initial site reconnaissance, an electromagnetic terrain conductivity (EM31) survey, and a portable proton magnetometer survey to define the site geological conditions, locate and buried metals, and determine the presence of contaminant plumes. Four monitoring wells were installed in the overburden of the former Granger Landfill which is the BCP Site. Groundwater, surface water, and sediment samples were collected from the former Granger Landfill site. The results did not indicate that there was any significant contamination at the site.[1] The more recent investigation in 2020 and 2023 which were conducted under the direction the NYSDEC were focused on investigating potential impacts to drinking water sources and other receptors (Parsons, 2020) and assess the potential for site-related constituents to migrate off-site above regulatory standards and guidance values (Ramboll, 2023).

In August 2020, emerging contaminant sampling was completed by Parsons (Parsons, 2020) under the Inactive Landfill Initiative which included the collection of four groundwater samples. Four monitoring wells were installed in the eastern portion of the BCP Site. The depths of the monitoring wells range from 15-feet to 31-feet below the ground surface. The collected groundwater samples were analyzed for volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons, 1,4-dioxane, perfluorinated compounds, baseline leachate indicators, and modified baseline metals.

Soil samples were not collected for laboratory analysis during the August 2020 investigation.

[1] The 1991 Phase II investigation is not available to 80 Lyndon Rd., LLC.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

In 2023, Ramboll[2] conducted an environmental site characterization of the BCP Site under the direction of the NYSDEC. The requestor only has access to the work plan that was prepared by Ramboll in advance of the field investigation and the analytical laboratory reports for the samples collected during the site characterization investigation. In summary, the project objective of Ramboll's work plan was to assess the potential for site-related constituents to migrate off-site above regulatory standards and guidance values. The site characterization evaluated the presence of VOCs, semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), 1,4-dioxane, per- and poly-fluoroalkyl substances (PFAS), inorganics, mercury, cyanide, and pesticides/herbicides in groundwater, surface water, soil, sediment, and fill material. The scheduled sampling consisted of:

- Soil sampling from three selected intervals from four soil boring locations
- Six test pit trenches with a projected depth of 4-feet to six feet and up to 8-feet in length.
- Install four monitoring wells to collect groundwater samples. The intent was to install the well screen in native material either vertically or horizontally outside the fill material to assess potential for migration of contaminants
- Surface water and sediment sampling of two samples collected from an upstream and downstream stream location

Soil – SVOC were detected in upper 1-foot soils at below restricted residential (DER-10 Part 375, Soil Cleanup Objectives [SCO]) standards at three soil boring /monitoring well locations around the perimeter of the Site. Lead was the only metal detected above restricted residential levels along the eastern portion of the site near Lyndon Road.

PFOA and PFOS were detected at multiple intervals from five monitoring well borings and at three test pit locations across the Site. PFOA and PFAS were detected above restricted residential levels at one test pit location in the northeast portion of the site in the upper surface soil sample and PFOS was detected over restricted residential levels at 6-feet to 8-feet below the ground surface in the southeast portion of the site a monitoring well boring. The SVOCs Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene and Indeno(1,2,3-cd)pyrene were also detected in the upper 1-foot at above Commercial and Industrial SCOs

During the test pitting, a buried container of medical waste and a drum of material which was sampled and contained elevated levels of VOCs and SVOCs levels was observed which indicates the landfill was used for disposal of other waste besides the intended use of disposal of boards, wooded debris, and rubble. A sample from the drum contained 2-Butanone (MEK), Ethylbenxene, Toluene, m,p-Xylene, o-Xylene, Xylene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene above industrial SCOs and Benzo(b)fluoranthene, Chrysene, and Indeno(1,2,3-cd)pyrene at above restricted residential SCOs.

Groundwater – PFOS and PFOA were detected at concentrations above their applicable Class GA standards in four of the seven onsite monitoring wells. The four wells with the exceedance are located along the eastern and southern portion of the site. PFOS exceedances ranged from 3. 8 to 847 ng/L and PFOA ranged from 24 to 5,470 ng/L.

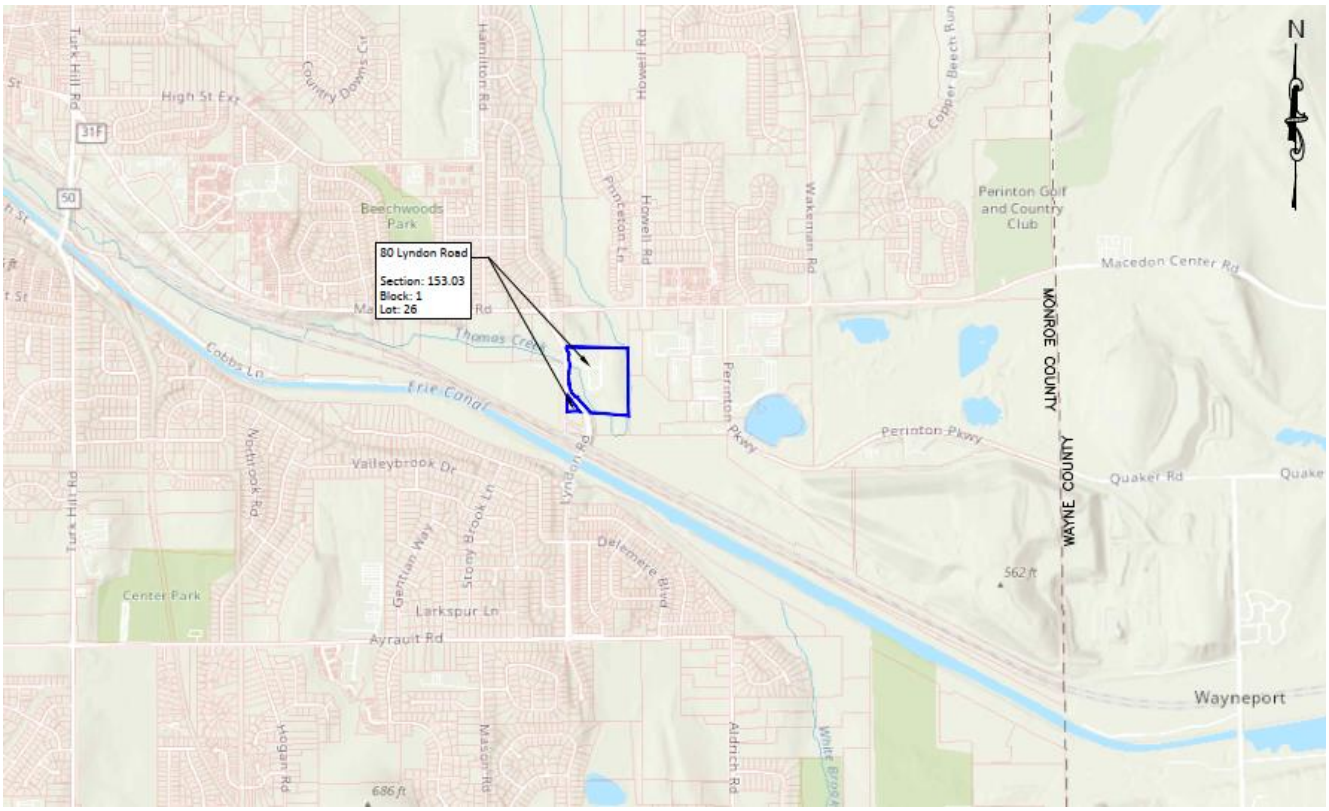
[2] 80 Lyndon Road, LLC does not have copy a Site Characterization Report. Only a work plan, laboratory reports and sample location figure was made available to 80 Lyndon Rd., LLC.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Surface Water – Five surface water samples were collected onsite from Thomas Creek and one surface water sample from the southwest portion of the site had an exceedance of PFOA above the Ambient Water Quality Guidance Values, April 2023, (Human Health Criteria for Surface Water and Groundwater) at 6. 8 ng/L.

Figure 1; Site Location



Site Activities/Current Operations: ☒ None ☐ As Specified

Other Concurrent Site Activities, Work, and/or Other Adjacent Hazards or Concerns:

☐ None

As Specified:

☐ Schools ☐ Daycare ☐ Hospital ☐ Airport

☐ Residential ☐ Offices ☐ Shopping

☒ Active parking lot and ice skating facility

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

5. Hazard Evaluation

Complete (1) Substance Name (be specific)	Specific Applicable OSHA Standard (if any)	Physical State (2) (S, L, G, Aq, Vap, F, P)	Max. (3) Conc. Level Per Physical State	General (4) Control Measures (Eng., Admin., PPE)
Acetone	2400 mg/m3	S	9,300 ug/kg	Eng., PPE
Benzo(a)anthracene	0.2 mg/m3	S	4,230 ug/kg	Eng., PPE
Benzo(a)pyrene	0.2 mg/m3	S	4,660 ug/kg	Eng., PPE
Benzo(b)fluoranthene	0.2 mg/m3	S	5,180 ug/kg	Eng., PPE
Benzene	1 ppm (PEL TWA)		191 ug/kg	Eng., PPE
Benzo(k)fluoranthene	N/A	S	2,130 ug/kg	Eng., PPE
Chlorobenzene	350 mg/m3	L	16 ug/L	Eng., PPE
Chrysene	0.2 mg/m3	S	4,030 ug/kg	Eng., PPE
1,4-Dichlorobenzne	450 mg/m3	S, L	<74 ug/L, 2.6 ug/L	Eng., PPE
2,4-Dimethylphenol	N/A	L	2.6 ug/L	
1-4-Dioxane	360 mg/m3	L	43 ug/L	
Ethylbenzene	545 mg/m3	S, L	387,000 ug/kg, 21.5 ug/L	Eng., PPE
Indeno(1,2,3-Cd) Pyrene	NA	S	3,520 ug/kg	Eng., PPE
Methyl ethyl ketone (MEK) 2-Butanone	590 mg/m3	S	940,000 mg/kg	Eng., PPE
Toluene	200 ppm	S, L	1,130,000 ug/kg	Eng., PPE
Total Xylenes	435 mg/m3	S, L	2,960,000 ug/kg, 142 ug/L	Eng., PPE
Lead	0.05 mg/m3	S	446 mg/kg	Eng., PPE
Magnesium	NA	L	97,900 ug/L	Eng., PPE
Sodium	NA	L	89,500 ug/L	Eng., PPE

(1) Use OSHA regulated name, not elemental forms. If available, attach SDS. Identify any sample preservative or O&M chemicals or subcontractor chemicals in this table also.
(2) S = Solids, L = Liquid, G = Gas, Aq = Aqueous, Vap = Vapor, F = Fume, P = Airborne Particulate.
(3) Site Maps with Soil and Groundwater exceedances are included in Attachment A.
(4) See the following sections for detailed control measures: personal protection equipment (PPE), Air Monitoring (Admin), or Site Control (Admin and Eng.).
(6) IP = Ionization Potential, VP = Vapor Pressure, LEL = Lower Explosive Limit, UEL = Upper Explosive Limit, N/A = Not Applicable, N.D. = Not Determined
(7) IDLH = Immediately Dangerous to Life and Health. NEVER enter IDLH conditions on site without proper respiratory protection.
(8) C = Ceiling Value, ST = Short-Term Exposure Limit, TWA = Time-Weighted Average, None Est. = None Established
(9) R = Respirable Limit, T = Total Limit
(10) Warning Properties: Good (G), Poor (P), None (N)

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

5. Hazard Evaluation (continued)

Site-Specific Physical Hazards

HAZARD	SPECIFIC CONTROL MEASURE
Slip/Trip/Fall Injury	– Use roads or trails whenever possible. – Occasionally reassess route to avoid dangerous terrain. – Maintain good housekeeping and keep work area clear of loose materials and equipment. – Use portable steps to mount and dismount sampling vehicle.
Ingestion of or contact with impacted soil or landfill debris	– Wear safety glasses. – Wear nitrile and appropriate cut-/puncture-resistant gloves (see Glove Selection Guideline) when performing tasks. – Wash hands and arms thoroughly when daily work is completed. – No eating, drinking, or smoking while conducting monitoring or sampling activities.
Pinched fingers or toes	– Wear appropriate cut-/puncture-resistant gloves (see Glove Selection Guideline) when the potential for hand injury exists. – Wear steel-toed safety shoes with steel shanks while on site.
Strained muscles	– Use proper lifting posture, techniques, and equipment when handling heavy objects. – Use two people for loads >40 lbs. or awkward items. – Take rests as needed during and between carries.
Cutting activities	– Wear appropriate cut-/puncture-resistant gloves (see Glove Selection Guideline) when the potential for hand injury exists.
Flying debris/eye injuries	– Wear ANSI-approved safety glasses when the potential for flying debris and eye injuries exists.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☐	Aboveground Storage Tanks (AST)	Be aware of any aboveground storage tanks and the type of material being stored in them. Be aware of the potential of spills, fires, explosions, etc., while working near the tanks. Stay clear of tanks whenever possible and be aware of any equipment operators near the tank(s).
☒	Animals (dogs, etc.)	Be aware of any animals on site or adjacent to the site. Appropriate care should be taken if any feral (wild) animals are encountered.
☐	Blasting/Explosives	INVENTUM personnel shall not handle any explosive devices or materials. INVENTUM personnel should understand the blasting procedures being used by the subcontractor, and all of the associated health & safety precautions. The subcontractor shall handle, store, and use the explosives in accordance with 29 CFR 1926.900, Subpart H and U.
☐	Boat or Barge	A boat or barge should be used that is adequately stable for the type of activity conducted. The boat or barge should have all of the appropriate and current licensing and registrations required by the applicable regulatory agencies. All applicable laws and regulations will be followed when launching the boat or barge, and when navigating to and from the work site. Personal floatation devices should always be worn while navigating the boat or barge. The boat must be equipped with the following approved United States Coast Guard (USCG) safety equipment: — A Type 1, 2, or 3 personal flotation device (PFD) for every person aboard (should be worn while navigating) The following equipment is recommended: — A Type 4 throwable PFD — Audible distress signal device (air horn, whistle) — Fire extinguisher (if engine-propelled) — Auxiliary propulsion (spare paddles, trolling motor) — Bow and stern lines — Anchor and anchor line — First aid kit — Visual distress signal device(s) (flares, dyes) — Additional PFDs Be familiar with local weather and tidal characteristics. Do not conduct sampling from a boat/barge when threatening weather is imminent, or poor visibility exists. Sampling from a boat is prohibited in water containing substances likely to cause injury upon short-term or prolonged contact. Sampling from a boat is prohibited when the temperature of the water is high or low enough to cause injury upon short-term or prolonged exposure. Avoid sampling from a boat when unsafe water turbulence (waves) exists. Avoid standing in a boat. Always use the buddy system when sampling from a boat or barge; one person should be on shore with visual contact of the barge and should be able to summon emergency assistance if needed. Be familiar with local weather and tidal characteristics. Work on a boat or barge will not be performed when threatening or severe weather is impending or present.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☒	Briars or Thistles	Be aware of any briars or thistles on site. Wear appropriate clothing and gloves. Avoid contact with briars or thistles whenever possible.
☒	Business Traffic	Be aware of traffic patterns associated with local businesses near the work site. Allow traffic to enter and exit the businesses in such a manner to avoid creating traffic hazards, back-ups, delays, or potential accident situations.
☐	Cement Dust	Stay clear of mixing operations and avoid contact with or breathing of the dust.
☐	Chain Saws	Stay clear of any chain saw operations. Subcontractor is responsible for the safe use of chain saws on site.
☐	Cleaning Agents	Use caution when applying cleaning agent to equipment. Use gloves, safety glasses, splash shields, and protective clothing as needed.
☒	Client Activities	Be aware of client activities at or adjacent to the site. Work activities should be coordinated with other site activities to avoid conflicts.
☒	Cold Stress	Work schedules may be modified when temperatures are below 20° F as measured by the wind chill factor. Take frequent breaks to warm up. Drink plenty of fluids. Wear appropriate clothing, and monitor for cold stress symptoms (frostbite, hypothermia, etc.).
☐	Compressed Air or Gas Cylinders	Compressed air or gas cylinders should be clearly marked, and they should be stored, transported, and secured in an approved manner.
☐	Compressed Air/Gas or Pressurized Liquids Hoses, Lines & Fittings	Compressed air or gas, or pressurized liquid lines or hoses should be inspected at least daily, or in the event a leak develops, or if a line or hose is run over or crimped.
☐	Concrete/Masonry/ Foundations	No construction loads shall be placed on a concrete structure or portion of a concrete structure unless a person who is qualified in structural design has determined that the structure or portion of the structure is capable of supporting the loads. All protruding reinforcing steel, onto and into which employees could fall, shall be guarded to eliminate the hazard of impalement. No employee shall be permitted to work under concrete buckets while buckets are being elevated or lowered into position. To the extent practical, elevated concrete buckets shall be routed so that no employee, or the fewest number of employees, are exposed to the hazards associated with falling concrete buckets. A limited access zone shall be established whenever a masonry wall is being constructed. All masonry walls over eight feet in height shall be adequately braced to prevent overturning and to prevent collapse unless the wall is adequately supported so that it will not overturn or collapse. The bracing shall remain in place until permanent supporting elements of the structure are in place.
☐	Confined Spaces (tanks, vaults, vessels, trenches, manholes, some excavations, etc.)	The scope of this project does entail entry into confined spaces. Confined spaces will not be entered unless a confined space entry permit has been completed, signed, and approved, and all participating personnel are trained in confined space entry procedures, including safety, and rescue procedures. All potential hazards of confined space may not be addressed by this hazard assessment, and health and safety plan.
☒	Cutting Tools	Stay clear of contractors' cutting tools, especially saws and torches. Be aware that cutting operations could create other hazards, such as falling objects, or shifting materials, etc. Safety glasses should be worn while using cutting tools. Spark-proof tools should be used when working in areas of potential explosive or flammable conditions. Fixed-open blade knives are prohibited.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☐	Demolition Activities	Stay clear of walls, ceilings, roofs, etc., as they are being demolished.
☐	Demolition Debris	Demolition material should only be handled by appropriate equipment because of sharp points, edges, etc. Demolition material may also pose a trip hazard, fall, or puncture hazard, so avoid walking or climbing on debris piles, etc.
☒	Drums	If drums are used on-site, they should be clearly labeled with the name of the contents and the appropriate label. Drums should only be handled with the appropriate equipment. Drums discovered during excavations, etc., shall not be opened or moved until appropriate identification can be performed. At a minimum, Level B protection is required for sampling any unlabeled drums discovered during remediation procedures.
☒	Dust/Particulates (Particulates Not Otherwise Regulated) (PNOR) (OSHA PEL = 15 mg./m^3, total) (OSHA PEL = 5 mg./m^3, respirable)	For general dust, work should be performed up-wind if possible. If conditions warrant it, monitoring should be done with a PM-10. Monitoring should occur at least 3 times per day, and every time re-entering the site. Readings should be taken downwind from the work area or inside the equipment as indicated by the conditions on site. If the OSHA PEL is exceeded, or is likely to be exceeded, engineering or administrative controls should be used, or a dust respirator must be worn. For hazardous dusts, a detailed air monitoring plan and a respiratory protection plan should be developed for the site activities.
☐	Elevated Work	For any construction work activities elevated 6 feet or more, or other non-construction activities elevated 4 feet or more, fall protection must be provided. Caution should be taken on catwalks and ladders because of potential slippery conditions, or the potential for footwear to catch on the surfaces.
☐	Energized Sources (electrical equipment or hookups, lines, etc.,) (Lockout/Tagout)	Contractors for all electrical activities, and any facility equipment with moving parts should follow proper lock-out/tag-out procedures, and only properly trained employees will perform the work. Employees will not perform any lock-out/tag-out activities unless personnel are properly trained in lockout/tagout procedures. Heed any caution signs or labels.
☒	Equipment Exhaust	Equipment exhaust should be ventilated away from the work area while drilling inside structures. Industrial fans can be used to move exhaust out of the area.
☒	Ergonomic Issues (job hazard analysis)	Ergonomic hazards will be addressed on a site-specific basis once mobilization to the field has occurred. Workstations will be evaluated on an individual basis.
☒	Evening Work	If work is performed during the evening hours, work shall be limited by the availability and the quality of artificial lighting. Care should also be taken to avoid slip, trip, and fall hazards that are not as easy to identify during low light conditions.
☒	Excavations	Stay clear of excavation walls. INVENTUM personnel will not enter an excavation, in accordance with 1926 Sub Part P. Subcontractor must provide a Competent Person on site if one is required by the planned activities. Side cuts should conform to 1926 Subpart P requirements, or shoring should be used. All open excavations should be secured using traffic cones, barrier tape, or barricade signs stating, "Do Not Enter Excavations", especially if left open overnight.
☐	Explosives	Be aware of potential explosive materials and how to identify them. No smoking is allowed on-site or near where potential explosive materials may be present.
☐	Facility Conveyors (product or waste lines)	Stay clear of facility conveyors, product process lines, and waste disposal lines. Be aware of any client-specific health and safety requirements to work in these areas.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☐	Facility Equipment/Machinery	Be aware of active and moving client equipment on site.
☐	Facility Piping - aboveground	Stay clear of aboveground pipes. Client is responsible to identify all applicable aboveground facility pipes prior to any work activities in the area. Pipes can be overhead hazards, or trip hazards. Pipes can be hazardous because of the material flowing through them, such as steam, natural gas, toxic chemicals, etc. Some pipes are also coated with hazardous material such as asbestos.
☐	Facility Piping - belowground	Client is responsible to identify all applicable underground facility pipe locations prior to any subsurface activities.
☐	Fall Hazard	Proper tie-off, harnesses, railings, etc. should be used when performing work on ladders, scaffolding, man-lifts, or on the roof of buildings, etc. Stay clear of the edges of pits, trenches, quarries, etc.
☒	Falling Objects	Be aware of any potential falling objects or materials on site. Stay clear of any areas identified as potential falling object areas.
☒	Fences	Be aware of fences in disrepair that may be trip hazards or may have materials that could cause punctures or cuts. Use caution when crossing over or under fences.
☒	Field Equipment	If field equipment is heavy or awkward to carry, get assistance or use carts to help move around the site.
☒	Field Vehicle	Inventum personnel shall follow all applicable state and federal traffic laws while traveling to and from the site, and while working on the site. In particular, the following laws should be followed: speed limits, parking restrictions, use of wipers and lights during precipitation events, limiting cell phone use, etc. It is the responsibility of the driver to verify that all safety equipment on the vehicle is working properly before driving the vehicle. In particular, the following items should be checked: tire pressure, tire tread, windshield wipers, windshield washer, headlights, tail lights, brake lights, spare tire, fire extinguisher, first aid kit, etc.
☒	Fire Hazards	Eliminate sources of ignition in work areas that have ignitable materials. Provide an ABC fire extinguisher in close proximity to the support zone.
☒	Flooded Areas	Do not drive through flooded areas or standing water. Do not wade into moving water, or water deeper than 2 feet without adequate assistance.
☒	Flying Debris/ Eye Injuries	Be aware of any flying debris on site and wear protective eyewear when necessary.
☒	Fork Lifts	Be aware of forklift patterns and stay clear of those routes.
☒	Hand Tools	Use only the appropriate tool for the task at hand. Use the tool(s) as designed, described, and intended by the manufacturer.
☒	Heat Stress	The work schedule may be modified if the ambient temperature is more than 80° F. Take breaks as necessary, and drink plenty of fluids. If necessary, wear sunscreen and sunglasses on bright days. Monitor site personnel for signs of heat stress symptoms (heat rash, heat cramps, heat exhaustion, or heat stroke).

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☒	Heavy Equipment	Contractor is responsible for safe operation of equipment. All mobile heavy equipment must have a functioning backup alarm, and operators must comply with manufacturer's equipment instructions. Maintain proper distance and remain in line of sight of operator and out of reach of equipment. Isolate equipment swings, if possible. Make eye contact with the equipment operator before approaching the equipment. Understand and review hand signals, and wear orange safety vest, if necessary.
☒	Heavy Lifting	Use proper lifting procedures and equipment when handling heavy objects such as drums, manhole covers, tank covers, etc.
☐	High Pressure Gas Lines, etc.	Be aware of high-pressure gas lines and follow approved safety precautions when working with or around the lines.
☐	Highway Traffic	Traffic control within the right-of-way will be in accordance with the WDOT "Work Zone Safety – Guidelines for Construction, Maintenance, and Utility Operations" procedures. Work may be restricted within specific lanes during peak traffic times. Verify peak traffic times, and review planned activities with the WDOT, so that appropriate lane closures can be coordinated.
☒	Housekeeping	All field vehicles, job trailers, and field offices will be properly cleaned and organized to prevent cluttered work and storage areas.
☐	Hunters/Firing Range, etc.	Be aware of surrounding activities that may involve hunting, firearms, etc. that may not be in your immediate area, but could create an unsafe work environment.
☒	Ice (thin)	When project activities include either crossing ice or working directly on the ice, a detailed plan should be developed that will be used to continually evaluate the ice conditions, and to determine when work should be terminated due to unsafe conditions. All staff working on the ice will wear an appropriate and approved personal flotation device. Other emergency equipment such as ropes, a throwable flotation device, a means to warm a wet and cold worker, etc. must be available. A buddy system should also be used for this type of work, such that one person is always on shore or at least on previously determined safe ice.
☒	Insects (ticks, bees, spiders, etc.)	Site workers with known allergies to insect bites should carry their own medication. In case of emergencies, inform fellow workers of any severe allergies. Use insect repellant as necessary, and as specifically allowed on site. If possible, wear long-sleeved shirts and pants. If appropriate, check for ticks at the end of each day. Have other appropriate first aid supplies handy for bites. (Be mindful of using insect repellant with the sampling work area.)
☒	Stakeholders	Be aware of the potential for irate neighbors or outsiders that may interfere with work activities, or that may potentially damage equipment or on-site materials, etc.
☐	Ladders	Ladders should only be used if they are in good condition, conform to OSHA requirements, and if they will be used in an appropriate manner. Be especially cautious of slipping on ladders when the ladder or footwear is wet or dirty.
☐	Landfill Gas (Methane, CO2, Hydrogen Sulfide)	Avoid breathing gas, especially in low oxygen areas (simple asphyxiant). Potentially flammable and explosive, so keep ignition sources away from gas. Explosive conditions of LEL >5% in a work area should be ventilated as soon as possible, or the area should be evacuated.
☐	Leachate (Municipal Solid Waste (MSW))	MSW leachate may contain hazardous biological substances, so avoid physical contact with leachate and, if possible, stay up-wind. If contact is made with leachate, wash affected areas thoroughly with soap and water. If boots contact leachate, they should be thoroughly washed with soap and water also.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☒	Lead	Wear gloves when in contact with lead contaminated soil, etc. Thoroughly wash hands and arms when daily work is completed.
☒	Long Hours/Fatigue	Long work hours can lead to fatigue, and fatigue can lead to the physical inability to perform the work in a safe manner, or travel to or from a work site in a safe manner. If long work hours are scheduled, or if the scheduled work takes longer than planned, field staff should determine if fatigue is, or will be, an issue. Field staff should evaluate whether they are able to complete the work in a safe manner, or whether they are able to travel in a safe manner. If fatigue is an issue, appropriate breaks should be planned or taken, including overnight stays when necessary.
☒	Material Handling	Move containers and heavy material only with the proper equipment, and secure them to prevent dropping, falling, or loss of control during transport. Stay clear of material handling operations, especially near slopes. Do not stand down the slope from equipment, supplies or materials being moved above on the slope, or being deployed onto the slope.
☒	Material Storage	Stored material may be a falling hazard, or a crush hazard. Do not stand adjacent to materials stacked up, such as pipes, geosynthetic rolls, etc., or in the area of deployment.
☐	Methane Gas (Landfill Gas)	Explosive conditions (5% LEL) will be ventilated, if encountered, prior to working in an area. Methane is a simple asphyxiant.
☐	Mine or Quarry	No work shall be performed within 15 feet (or other designated client setback, whichever is greatest) of the mine or quarry walls. Be aware of the potential for falling rocks or slope failures.
☐	Municipal Solid Waste (MSW)	MSW may contain hazardous biological substances, so avoid physical contact, and if possible, stay up-wind. Wear appropriate PPE, such as gloves, safety shoes, and safety glasses. Wash hands, arms, and face after working near MSW. Reusable PPE and equipment should be thoroughly decontaminated after exposure to MSW. MSW may also contain sharp objects with the potential to puncture PPE.
☐	Natural Gas	Natural gas is flammable and explosive. Keep ignition sources away from gas sources. Use spark-proof tools when working with gas lines, etc.
☒	Noise	Hearing protection must be worn when noise levels exceed 85 dBA in the work area. If you need to raise your voice to be heard at the work site, then hearing protection should be worn. Hearing protection will be worn near drill rigs.
☒	Overhead Hazards	Pay attention to overhead equipment, piping, and structures. A hard hat must be worn at all times when overhead hazards are present on site including the operation of a drill rig.
☒	Pedestrian Traffic (public, client, workers)	Be aware of pedestrian traffic patterns and route traffic around the exclusion zone(s), as necessary, to avoid distractions and the potential for exposures or accidents. Use appropriate barricades and caution tape to mark work areas.
☒	Poisonous Plants	Be able to identify any local poisonous plants and avoid them if possible or wear protective clothing as necessary. When removing potentially exposed clothing or PPE, the clothing or PPE should be carefully and thoroughly washed or decontaminated. Poison Ivy is prevalent on the site.
☒	Portable Heaters	Be aware of portable heater locations and stay a safe distance from them.
☒	Power Washing Equipment	Stay clear of the power washing nozzles and equipment.
☐	Propane Tanks	Be aware of propane tank locations, and any gas lines leading to or from the tanks.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☐	Radiation (ionizing)	Exposure to ionizing radiation can be controlled by one of three methods: time, distance, or shielding. Limit your time near the radioactive source. Keep your distance from the radioactive source. Shield yourself from the radioactive source with appropriate shielding material. If the radioactive source(s) are from INVENTUM equipment, the INVENTUM employee using the equipment needs required training to use the equipment and must be monitored using a dosimeter badge.
☐	Rock Blasting	Contractor is responsible for following safe blasting protocol. Heed all contractor warnings at time of blasting and stay well clear until safe to return to area, as indicated by the contractor.
☒	Sample Preservative Chemicals:	Wear safety glasses and nitrile gloves when adding preservative chemicals to sample bottles or vials. Have clean wash water nearby.
☐	Scaffolding	Stay clear of scaffolding. Be aware of the OSHA safety requirements for using constructing and scaffolding.
☒	Severe Weather	Work may be suspended if dangerous weather conditions (lightning, tornadoes, high winds, heavy rain, freezing rain, etc.) occur. Be aware of changing weather conditions and be prepared to take shelter as necessary. Potential shelters should be identified prior to beginning work.
☒	Sharp Objects	Wear appropriate gloves when handling sharp objects or use appropriate equipment to move objects.
☒	Slippery Ground/Surfaces	Exercise caution, especially on slopes, field trailer floors and stairs, after a precipitation event. Use slip resistant boots or implement surface preparations to eliminate the slippery nature of the surface prior to accessing the area. Spill control measures and general housekeeping should be utilized to help prevent slipping on wet floors, wet pavement, and general work areas.
☒	Slips, Trips, and Falls:	Maintain clear walkways for work areas.
☒	Snakes, Beavers, and other wild animals	Be aware of the potential for snakes in the area and wear snake boots, snake chaps, gaiters, or leggings as needed. Be aware that beavers have been observed onsite. Do not approach a beaver or its lodge/den. Avoid physical contact with beavers and their feces. If you encounter a beaver that appears sick or injured, make note of its location and report it to a New York State (NYS) conservation officer. Beavers are hosts for several ectoparasites and internal parasites including nematodes, trematodes, and coccidians. Giardia lamblia is a pathogenic intestinal parasite transmitted by beavers, which has caused human health problems in water supply systems. Beavers also are known to carry tularemia, which can be transmitted to humans through direct contact. All mammals are capable of being infected with and transmitting rabies. In the United States, most cases of rabies occur in wild animals—mainly skunks, raccoons, bats, coyotes, and foxes which could be present on site. **Do not approach any of these animals while working onsite**. Signs of rabies in animals include fearfulness, aggression, excessive drooling, difficulty swallowing, staggering, paralysis, and seizures. Contact a NYS conservation officer if an animal show signs or rabies is observed.
☒	Steam Cleaning Equipment	Stay clear of the steam cleaning nozzles and equipment.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☐	Steel Erection	All materials, equipment, and tools, which are not in use while aloft, shall be secured against accidental displacement. The controlling contractor shall bar other construction processes below steel erection unless overhead protection for the employees below is provided. Employees engaged in steel erection activities on a walking/working surface with an unprotected side or edge more than 15 feet above a lower level shall be protected from fall hazards by guardrail systems, safety net systems, personal fall arrest systems, positioning device systems or fall restraint systems.
☒	Steep Slopes or Banks	Pay attention to footing and walking. Stay a safe distance from unstable or extremely steep slopes. Wear appropriate footwear. Be aware of potential slope or bank failures. Heavy equipment should not be operated on or near unstable slopes or banks.
☒	Strong Nuisance Odors	Strong odors should be ventilated before entering a work area, or a respirator shall be worn as needed.
☒	Sunburn	For extended periods of time outdoors on sunny days, sunglasses, long-sleeved shirts and long pants should be worn to help prevent sunburn and eye problems. Wear sunscreen as appropriate for the project. (Be mindful of not spraying aerosol sunscreen when collecting PFAS samples, review PFAS sampling guidelines).
☒	Surface Water	Working next to or on, bodies of water shall be done using the buddy system. Staff shall wear USCG-approved personal floatation devices when on or adjacent to bodies of water.
☒	Terrain	Uneven or steep terrain can cause hazardous conditions for walking and transporting equipment around the site. Site personnel should use caution when working on uneven surfaces, and they should avoid working down-slope from heavy equipment, or materials being moved or stored.
☒	Traffic (client, contractors, public, semi-trucks, forklifts, etc.)	Obey all posted speed limits. Park in designated areas only. Be aware of traffic patterns on site, and during access to the site. Use orange traffic cones and barrier warning tape, as needed, or if within 25 feet of the right-of-way. INVENTUM personnel must wear orange safety vests when working in or near traffic areas. Class 2 traffic vests are required with traffic speeds 25 mph or higher. Class 3 traffic vests are required with traffic speeds 50 mph or higher.
☐	Trains/Railroad Tracks	Be aware of any train activities on the site, entering or leaving the site, or immediately adjacent to the site. Do not walk between the rails or on the railroad ties. When driving, stop at all railroad crossings, even if they are unmarked, and look in both directions before proceeding across the tracks.
☒	Transporting Hazardous Materials	INVENTUM personnel who transport hazardous materials shall have the required DOT training prior to transporting materials, and will comply with all applicable DOT regulations and requirements for labeling, packaging, etc.
☒	Tree Cutting	Stay clear of tree cutting activities.
☒	Trenching	INVENTUM personnel will enter trenches in accordance with 1926 Sub Part P. Be aware that some trenching conditions may result in a confined space condition.
☒	Trip Hazards (wires, cords, hoses, debris, corn stubble, uneven surfaces, etc.)	Temporary wires, cords, hoses, etc., should be properly located, marked, and protected to help prevent tripping and disruption to work activities. Trip hazards are particularly a problem early in the morning, late in the day, or under other poor lighting conditions.
☐	Underground Storage Tanks (USTs) (Septic Tanks)	If any unknown USTs are encountered, drilling or excavations will be terminated in that location until a new scope of work, Risk Assessment and Health & Safety Plan can be developed.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☒	Uneven Surfaces	Be aware of uneven walking or driving surfaces and exercise caution when moving around the site.
☒	Utilities – Overhead (electrical, telephone, cable TV, etc.)	A subcontractor, the client, or INVENTUM will locate and identify all overhead utilities. The owner or client will be responsible for identifying all applicable overhead utilities, product lines, pipes, and aboveground tanks. A minimum clearance of 20 feet must be maintained between equipment and overhead utility lines.
☒	Utilities – Underground (electric, gas, telephone, water, storm sewer, sanitary sewer, cable TV, etc.)	A subcontractor, the client, or INVENTUM will call Digger's Hotline to locate all underground utilities. The owner or client will be responsible for marking all applicable on-site underground utilities, product lines, pipes, and tanks.
☒	Waterways	Exercise caution near, around, or in waterways. Harnesses should be worn when working in, or within 4 feet of, the waterway, especially when attempting to sample from shore or a boat or barge. All applicable laws and regulations will be followed when navigating a boat or barge to and from a work site.
☒	Welding Tools	Stay clear of welding operations, and do not look directly at the welding process without appropriate eyewear and shield.
☐	Traffic Control	**Traffic Control**: Traffic control within the right-of-way will be in accordance with the local Public Right-of-Way Agency. Work may be restricted within specific lanes during peak traffic times. Verify peak traffic times and review planned activities with the local Public Right-of-Way Agency, so that appropriate lane closures can be coordinated.

Proposed Date(s) of Inventum Work: TBD

ON-SITE PROJECT TEAM MEMBER	ON-SITE PROJECT RESPONSIBILITIES
John Black	Inventum Site Health and Safety Representative (Supervisor); Remedial Contractor Oversight
James Edwards	Inventum Site Health and Safety Representative (Supervisor); Remedial Contractor Oversight
Peter Zaffram	Inventum Site Health and Safety Representative; Remedial Contractor Oversight

Any required construction/demolition activities: ☒ No ☐ Yes If Yes, complete Section 1

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

1. Construction Tasks: work tasks to be performed by Inventum staff or Inventum subcontractors

Civil

- ☐ Sewer (utility)
- ☐ Water (utility)
- ☐ Electric (utility)
- ☐ Communications (utility)
- ☐ Siding
- ☐ Roofing
- ☐ Drywall
- ☐ Flooring
- ☐ Ceilings
- ☐ Casework
- ☐ Masonry
- ☐ Escalator
- ☐ Steel (erection)
- ☐ Pre-cast (erection)
- ☐ Concrete (erection)
- ☐ Re-bar
- ☐ Elevator
- ☐ Fireproofing
- ☐ Windows
- ☐ Landscaping
- ☐ Painting
- ☐ Insulation
- ☐ Doors
- ☐ Finish Concrete

Mechanical

- ☐ Insulation
- ☐ Millwright
- ☐ Fire Protection
- ☐ Boiler
- ☐ Industrial Ventilation
- ☐ Steel Fabrication/Erection

Other

- ☐ Electrical
- ☐ Demolition (attach a detailed "**Demolition Plan**")

- ☐ Others
- ☐ Others
- ☐ Others

Estimated Direct-Hire Inventum Employees:

Home Office: ☐ Not Applicable ☐ Specify:

Craft Labor: ☐ Not Applicable ☐ Specify:

Craft	Quantity
Craft	Quantity

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

2. Applicable Safety Standards or Regulations:

☒ Federal OSHA ☐ State OSHA ☐ Owner/Client

Specific Standards:	29 CFR 1910 (OSHA)	29 CFR 1926 (Other Regulations)
☒ Medical Services and First Aid	1910.151	1926.50
☒ Hazard Communication (HAZCOM)	1910.1200	1926.59
☒ Lead Exposure	1910.1025	1926.62
☒ HAZWOPER	1910.120	1926.65
☒ Personal Protective Equipment (PPE)	1910.132-138	1926.95-107
☒ Respiratory Protection	1910.134	1926.103
☒ Ventilation	1910.94	1926.57
☒ Noise Exposure	1910.95	1926.52
☐ Illumination	N/A	1926.56
☐ Fire Protection	1910.157	1926.24 and 150-155
☐ Sanitation	1910.141	1926.51
☐ Materials Handling (rigging, etc.)	1910.176	1926.250-251
☐ Welding/Cutting	1910.251-255	1926.350-354
☐ Lockout/Tagout	1910.147	1926.417
☐ Electrical (flexible cords, etc.)	1910.305	1926.400-449
☐ Scaffolding	1910.28-29	1926.450-454
☐ Fall Protection (elevated work)	1910.23-29, 1910.66-68	1926.104-107; 500-503
☐ Ladders/Stairways	1910.25-27	1926.1050 and 1060
☐ Cranes, Derricks, Hoists, Elevators, etc.	1910.179-181	1926.550-555
☐ Aerial Lifts	1910.66-68	1926.556
☐ Earthmoving Equipment	N/A	1926.602
☐ Powered Industrial Trucks (forklifts)	1910.178	1926.602
☒ Excavations and Trenching	N/A	1926.650-652
☐ Concrete and Masonry	N/A	1926.700-706
☐ Steel Erection	N/A	1926.750-761
☐ Demolition	N/A	1926.850-860
☐ Asbestos	1910.1001	1926.1101
☐ Confined Space Entry	1910.146	1926.21

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

☐ Commercial Diving	1910.401-441	1926.1071-1092
☐ Compressed Gases	1910.101-105	N/A
☐ Ionizing Radiation	1910.1096	1926.53
☒ Benzene	1910.1028	1926.1128
☐ Cadmium	1910.1027	1926.1127
☒ Tools - Hand and Power	N/A	1926.300-307
☐ Blasting and Using Explosives	N/A	1926.900-914

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

3. Training Required

(* required for all "Type 3" sites; but minimum recommended)

Check "A" if training required for everyone, and check "T" if training required for specific task.

A	T	SUBJECT	REFERENCE	
			29 CFR 1910	**29 CFR 1926 or Other**
☐	☒	HAZWOPER 40 hour*	1910.120	1926.65
☐	☐	3-Day HAZWOPER Supervised On-Site*	1910.120	1926.65
☐	☒	8-Hour HAZWOPER Refresher*	1910.120	1926.65
☐	☐	8-Hour Supervisor HAZWOPER*	1910.120	1926.65
☐	☒	First Aid, CPR*	1910.151	1926.23,.50
☐	☒	Respiratory Protection	1910.134	1926.103
☐	☐	Confined Space ☐ Permit attached	1910.146	1926.21
☐	☐	Mine Safety (MSHA)	N/A	30 CFR 48.8
☐	☐	Lockout/Tagout ☐ Permit attached	1910.147	1926.417
☒	☐	Bloodborne Pathogens	1910.1030	N/A
☒	☐	Noise Exposure	1910.95	1926.52
☐	☒	Competent Person	N/A	1926.32,.450,.650
☐	☐	Construction Health and Safety OSHA 10-Hour	N/A	1926.21
☐	☐	Demolition	N/A	1926.850
☐	☐	Excavations ☐ Permit attached	N/A	1926.650-652
☐	☐	Electrical Work	1910.332	1926.400-.449
☐	☐	Ladders/Stairways	N/A	1926.1050-1060
☐	☐	Scaffolding	1910.28	1926.450-454
☐	☐	Fall Protection	1910.23-29; 1910.66-68	1926.104,.501
☐	☐	Commercial Diving	1910.410	1926.1071-1092
☐	☐	Hot Work ☐ Permit attached	1910.251-255	1926.350
☐	☐	Lead Awareness	1910.1025	1926.62
☐	☐	Asbestos Awareness	1910.1001	1926.1101
☐	☐	Cadmium	1910.1027	1926.1127
☐	☐	Benzene	1910.1028	1926.1128
☐	☐	Ionizing Radiation	1910.1096	1926.53; 10 CFR 19.12
☐	☐	Troxler or NITON Gauge User	1910.1096	10 CFR 19.12
☐	☐	Radiation Safety Program	1910.1096	10 CFR 20.1101
☐	☐	Hazard Communication (HAZCOM)	1910.1200	1926.59
☐	☒	DOT Hazardous Materials Shipping	1910.1201	49 CFR 172.704

Client-specific training: ☒ Not Applicable ☐ Specify

Site-specific orientation: ☒ Not Applicable ☐ Specify

Competent person: ☒ Not Applicable ☐ Specify

Direct-hire employee training/certification: ☒ Not Applicable ☐ Specify

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

4. Medical Surveillance

Surveillance Required: * required for all "Type 3" sites; baseline is minimum recommended
** Specify frequency below

	29 CFR 1910	29 CFR 1926 or Other
☐ HAZWOPER Physical - Baseline*	1910.120	1926.65
☐ HAZWOPER Physical – Annual	1910.120	1926.65
☐ HAZWOPER Physical - Biennial*	1910.120	1926.65
☐ OSHA Respiratory Protection Questionnaire	1910.134	1926.103
☐ Respiratory Certification Exam	1910.134	1926.103
☐ Arsenic (urine) **	1910.1018	N/A
☐ Asbestos **	1910.1001	1926.1101
☐ Cadmium (blood) **	1910.1027	1926.1127
☐ Lead/ZPP (blood) **	1910.1025	1926.62
☐ Mercury (blood) **	N/A	N/A
☐ PCB **	N/A	N/A
☐ Vinyl Chloride **	1910.1017	1926.117
☐ Hepatitis B Vaccine (series) **	1910.1030	N/A
☐ Tetanus/Diphtheria	N/A	Stay Current
☐ Stress Test	N/A	Only as requested
☐ Visual Acuity Test	N/A	Only as requested
☐ Hearing Test (Audiometry)	N/A	Only as requested
☐ Pulmonary Function	N/A	Only as requested

Client-specific drug testing: ☒ Not Applicable ☐ Specify

Client-specific medical monitoring[1]: ☒ Not Applicable ☐ Specify

Site-specific medical monitoring: ☒ Not Applicable ☐ Specify

**Frequency of medical monitoring: ☒ Not Applicable ☐ Specify

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

5. Personal Protective Equipment (PPE)

Based on evaluation of potential hazards, the following levels of personal protection have been designated for the applicable work tasks:

Specific Inventum Job Task or Function	Minimum Level of Protection
Task 1 – Site management and Oversight	☒ D ☐ C ☐ B ☐ A
Level D: safety glasses (ANSI), safety shoes (ANSI), ear plugs (ANSI); safety vest (ANSI)	
Task 2 – Surficial Soil Sampling	☒ D ☐ C ☐ B ☐ A
Level D: safety glasses (ANSI), safety shoes (ANSI), ear plugs (ANSI); safety vest (ANSI), nitrile gloves,	
Task 3 – Subsurface Soil Sampling	☒ D ☐ C ☐ B ☐ A
Level D: Hard hat, safety glasses (ANSI), safety shoes (ANSI), nitrile gloves	
Task 4 – Permit Compliance Water and Wastewater Sampling	☒ D ☐ C ☐ B ☐ A
Level D: Hard hat, safety glasses (ANSI), safety shoes (ANSI), nitrile gloves	
Task 5 – Monitoring Well Abandonment	☒ D ☐ C ☐ B ☐ A
Level D: safety glasses (ANSI), safety shoes (ANSI), ear plugs (ANSI); safety vest (ANSI)	
Task 6 – Monitoring Well Installation	☒ D ☐ C ☐ B ☐ A
Level D: safety glasses (ANSI), safety shoes (ANSI), ear plugs (ANSI); safety vest (ANSI)	
Task 7 – Groundwater Monitoring and Sampling	☒ D ☐ C ☐ B ☐ A
Level D: Hard hat, safety glasses (ANSI), safety shoes (ANSI), nitrile gloves	
Task 8 – Sampling of Residuals	☒ D ☐ C ☐ B ☐ A
Level D: Hard hat, safety glasses (ANSI), safety shoes (ANSI), nitrile gloves	

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

Criteria for changing protection levels are as follows:

EVACUATION[2] or PROTECTION LEVEL CHANGE[3] CRITERIA	APPROVALS REQUIRED [1]
Site Evacuation Plan: ☒ Not Applicable ☐ Specify or Attach Plan:	
Change to Level D when: ☐ Not Applicable ☒	☒N/A All site work in Level D
Change to Level C when: ☒ Not Applicable ☐ dust levels exceed 2.5 mg/m^3 in the breathing zone continuously for 5 minutes.	☒ No work will be conducted in Level C. Site work will stop, controls reevaluated, and HASP updated as necessary
Change to Level B when: ☒ Not Applicable ☐ Specify	☒ Inventum will not conduct any work in Level B.
Change to Level A when: ☒ Not Applicable ☐ Specify	☒ Inventum will not conduct any work in Level A. ☒

[2] General Recommendations: Evacuate the area when LEL readings are >10% LEL in the atmosphere, or when PID readings are greater than the PEL in the breathing zone.

[3] General Recommendation: To Level C when PID readings are greater than the PEL in the breathing zone. To Level B or A only after detailed evaluation and planning.

Note: Changes to the level of protection shall be made only after the required approvals are obtained. All changes shall be recorded in the field log and reported to the Project Manager as soon as possible. Inventum's goal is to avoid using respiratory protection unless it is absolutely necessary or required. Administrative controls or engineering controls should always be considered as a means to reduce potential exposures before PPE is required or considered.

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

6. Air Monitoring [1]

The following monitoring instruments shall be used on site to measure airborne contaminant concentrations in either the breathing zone, or as part of the overall site **Air Monitoring Plan** (attach detailed plan):

MONITORING EQUIPMENT	LOCATION OF MONITORING	FREQUENCY OF MONITORING	ACTION LEVELS
☐ Combustible Gas Indicator	☐ N/A ☐ Monitoring Plan Attached ☐ Confined Space ☐ Manhole	☐ Continuously when potential combustible gases or lack of oxygen are suspected. ☐ Specify	5-10% LEL: continue with caution > 10 % LEL: evacuate the area ☐ Specify
☐ O2 Monitor ☐ CO Monitor ☐ H_2S Monitor	☐ N/A ☐ Confined Space ☐ Manhole – monitor oxygen, carbon monoxide, hydrogen sulfide , and lower explosive limit	☐ Continuously when excess oxygen (>22.5%) or lack of oxygen (<19.5%) are suspected. ☐ Test atmosphere prior to entry and continuous during confined space entry.	< 19.5% Oxygen: evacuate the area; supplied air may be needed. > 22.5% Oxygen: evacuate the area; potential fire hazard. ☐ Specify
☐ Colorimetric Tubes Type: Type: Type:	☐ N/A ☐ Specify ☐ Sample Container ☐ Confined Space ☐ Specify	☐ Periodically during sampling for analytical purposes only. ☐ Whenever noticeable odor is present. ☐ Specify	☐ Specify
☒ PID Lamp Needed: ☐ 9.8 eV ☒ 10.6 eV ☐ 11.7 eV	☒ Personal Monitoring ☒ Sample Container ☐ Confined Space ☐ Specify	☒ Periodically during sampling for analytical purposes only. ☒ Continuously within the employee breathing zone.	☒ None. ☒ >5 ppm above background in breathing zone for 5+ min. Stop work and reevaluate potential sources and controls.
Calibration Gas: Isobutylene		☐ Specify	
Correction Factor:		☐ Specify	
☐ FID	☐ N/A ☐ Specify	☐ Specify	☐ Specify
☒ Personal Dust Monitor	☐ N/A ☒ Personal Monitoring in Breathing Zone (Task 2 - 6 only)	☒ Continuously within the employee breathing zone	☒ >2.5 mg/m3 at work perimeter for 15 min sustained. Stop work and apply dust controls

☒Other: Perimeter Monitoring	☒ Perimeter Air Monitoring in accordance with the CAMP	☐ Specify	☐ Specify
☐Laboratory Supported ☐Personal ☐Area ☒Perimeter	☐ N/A ☐ Specify Employee breathing zone	☐ Specify continuous	☒ When visible dust is present apply dust control measures (water spray) until abated.

(1) Whenever air monitoring is required to be performed, a detailed **Air-Monitoring Plan** should be developed and attached to the HASP. The plan should include **Monitoring Locations, Frequency of Readings**, and any **Action Levels** being used to control the work site.

Air Monitoring Plan

Field monitoring of dust production is anticipated only during subsurface soil sampling (Task 2) and installation of monitoring wells (Task 7). A visual assessment of dust levels will be used continuously during the work along with personal employee monitoring and perimeter air monitoring in accordance with an approved CAMP.

Dust production during monitoring well abandoned, monitoring well installation, and surficial soil sampling is not anticipated due to the typical moisture content of the soil.

This level of nuisance dust is visually observable. If dust is observable continuously in the breathing zone for 5 minutes, dust control methods will be used (*e.g.*, water spray will be applied) until dust is abated. Work will be temporarily discontinued until dust is reduced to acceptable levels within the breathing zone. Should particulate levels above the action level be a continual problem, relevant field personnel will reassess the situation with the project manager.

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

7. Site Controls and Work Zones (describe in detail)

Facility Alarms or Signals: ☒ Not Applicable ☐ Specify

Work Permits Required: ☒ Not Applicable ☐ Specify

Work Traffic Issues: ☒ Not Applicable ☐ Specify

Parking Issues: ☒ Not Applicable ☐ Specify

Railway Traffic Issues: ☒ Not Applicable ☐

Support Zone(s):

☒ Field vehicle ☐ Job Trailer On Site ☒ Other: **Parking Lot**

Contamination Reduction Zone(s):

☒ Field vehicle ☐ Facility restroom/utility room ☐ Other:

Exclusion Zone(s):

☒ Area immediately surrounding work area ☐ Other:

Site Entry Procedures:

☒ **Notify Site Safety Contact Representative.**

☒ **Read HASP Plan and sign Acknowledgment Statement.**

☒ **Check in with the facility contact person.** ☒ **Check in with owners full time site representatives.**

☒ **Check in with facility security guard.** ☒ **All visitors must check in and sign visitor logbook in guard house.**

☒ **Wear proper personal protective equipment.**

☐ Attend facility orientation. ☐

☒ **Conduct daily safety meeting (document).**

☐ Other: Confined space – do not enter the confined space if LEL >10%, oxygen <21% or >23.5%, carbon monoxide >35 ppm, or hydrogen sulfide >7 ppm. Exit the confined space if the atmospheric conditions become hazards as noted.

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

Decontamination Procedures:

Personnel: (specify)	Work will be performed in Level D or Modified Level D, and minimal contamination is expected. Follow standard decontamination procedures, and good personal hygiene. Disposable PPE should be removed, contained, and disposed of in an appropriate manner. Prior arrangements should be made if disposal is planned for at the project site. Site workers should plan and stage for wash water and soap at the site, prior to beginning the work. Site workers should wash hands and any exposed skin extremely well with soap and water, prior to leaving the contamination reduction zone, eating, drinking, driving, or leaving the site. Any soiled or contaminated clothing should be removed and handled appropriately, by either washing as soon as possible, or if necessary, disposing. Soiled or contaminated clothing should be carefully bagged prior to disposal or washing, to reduce potential exposure.
Equipment: (specify)	Site workers should plan and stage for the appropriate decontamination method at the site prior to beginning the work. Any contaminated single-use disposable equipment or PPE should be appropriately containerized and disposed of as soon as possible in an appropriate manner. Prior arrangements should be made if disposal is planned for at the project site. Contaminated equipment or PPE that will be re-used should be handled and cleaned while wearing the appropriate PPE. Typically, equipment is decontaminated using Alconox soap and deionized water.

Disposal of Investigation-derived Material:

☒ Leave on site for disposal. Location TBD ☐ Other:

Work Limitations (time of day, buddy system, etc.):

☐ Buddy system required for some tasks.

☒ Work will be performed during daylight hours only.

☐ Work will be performed using artificial light.

Describe or attach a lighting plan: A lighting plan is attached.

☒ No eating, drinking, or smoking in contamination reduction zone(s) or exclusion zone(s).

☒ When temperatures are either above 80°F or below 20°F, work schedules may be modified.

☒ Other site-specific limitations: Do not enter battery building

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

Radiation Safety:

- ☒ Radiation information is not applicable to this project.
- ☐ Notify RSO.
- ☐ Wear dosimeter badge when handling gauge.
- ☐ Post applicable radiation signs and documents.
- ☐ Post emergency numbers.
- ☐ Provide at least two lock systems for overnight storage.
- ☐ Maintain storage at least 15 feet from full-time workstations.
- ☐ Block, brace, and securely lock the gauge during "all" transportation.
- ☐ Limit "public" exposure to gauge while in use.
- ☐ Provide sketch of gauge storage to RSO.

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

Acknowledgment Statement:

As an employee of Inventum, I have reviewed the Hazard Assessment (HA)/Health & Safety Plan (HASP). I hereby acknowledge that I have received the **required level of training and medical surveillance as necessary**, that I am knowledgeable about the contents of this site-specific RA/HSP, and that I will use personal protective equipment (PPE) and follow procedures specified in the HASP.

Signatures of Inventum Site Personnel:

	Date:	
	Date:	
	Date:	
	Date:	
	Date:	
	Date:	
	Date:	
	Date:	
	Date:	
	Date:	
	Date:	
	Date:	

INVENTUM SAFETY OBSERVATION FORM
November 2022

Location/Project Name:		**Date:**	
Observer Name:			
Observee Name:		**Time:**	

Task Observed
Description of Task Observed and Background Information
Positive Comments

INVENTUM SAFETY OBSERVATION FORM
November 2022

Conclusions / Why the Questionable Items Occurred?

Feedback Session Conducted By: _____ **Date:** _____

Name of Observee's Supervisor: _____ **Time:** _____

At-Risk Observations/Root Cause Analysis

Personal Factor:
(1) Lack of skill or knowledge
(2) Correct way takes more time/requires more effort
(3) Shortcutting standard procedures is rewarded or appreciated
(4) In past, did not follow procedures or acceptable practices and no incident occurred

Job Factor:
(5) Lack of or inadequate operational procedures or work standards
(6) Inadequate communication of expectations or work standards
(7) Inadequate tools or equipment

At-Risk Observation #	Root Cause Analysis #	Solution(s) To Prevent Potential Incident from Occurring	Person Responsible	Agreed Due Date	Date Completed

Results of Verification (were solutions done?) and Validation (were solutions effective?)

Reviewed by (PM/Supervisor): _____ **Date:** _____

Approved by (Practice Safety Leader): _____ **Date:** _____

INVENTUM SAFETY OBSERVATION FORM
November 2022

PERSONAL PROTECTIVE EQUIPMENT	Safe	At-Risk	Comments
1. Hearing Protection (e.g., Ear Plugs)			
2. Head Protection (e.g., Hard Hat)			
3. ANSI Rated Eye Protection (e.g., Safety Glasses)			
4. Hand Protection (e.g., Kevlar Gloves)			
5. Foot Protection (e.g., Safety Shoes)			
6. Respiratory Protection			
7. Fall Protection Inspected (e.g., Harness)			
8. ANSI Rated Reflective Vest/High Visibility Clothing			
9. Other (Specify)			
BODY USE AND POSITIONING	**Safe**	**At-Risk**	**Comments**
10. Correct Body Use and Positioning When Lifting/Pushing/Pulling			
11. Pinch Points/Moving Equipment - Hands/Body Clear			
12. Mounts/Dismounts Using 3-Points of Contact			
13. Other (Specify)			

INVENTUM SAFETY OBSERVATION FORM
November 2022

WORK ENVIRONMENT	Safe	At-Risk	Comments
14. Work/Walk Surface Free of Obstructions (e.g., Tripping Hazards)			
15. Housekeeping/Storage			
16. Defined and Secured (e.g., warning devices, barricades, cones, flags)			
17. Suspended Load, Swing Radius & Lift Area is Barricaded			
18. Safety Shutdown Devices			
19. Proper Storage & Labeling /Disposal of Sample & Waste Materials			
20. Cylinders Stored Upright, Secured, & Caps in Place			
21. Manhole/vault Inspected for Hazards			
22. Other (Specify)			

INVENTUM SAFETY OBSERVATION FORM
November 2022

OPERATING PROCEDURES	Safe	At-Risk	Comments
23. Job Planning (HASP reviewed, JSAs, etc.)			
24. Fire Extinguishers Accessible and Inspections Current			
25. Work Permit/Authorization to Work (Hot, Cold, LOTO, Confined Space)			
26. JSA Reviewed & Followed			
27. Hazard Assessment - Hazard Hunt			
28. Interfaces with Other Functions (awareness with other personnel on site)			
29. Operators Looking Behind Prior to Backing Up			
30. Operators Wearing Seat Belts While Operating Equipment			
31. Subsurface Structures Identified			
32. Proper Trench Protective Equipment in Place			
33. Adequate Egress Is Available for Excavation & Trench (within 25 ft. if depth is <4 ft.)			
34. All Materials Set Back at Least 2 Feet From Edge of Trench/Excavation			
35. Other (Specify)			

INVENTUM SAFETY OBSERVATION FORM
November 2022

TOOLS/EQUIPMENT	Safe	At-Risk	Comments
36. Hand Tools (Proper Equipment Selection, Condition, and Use)			
37. Power Tools (Proper Equipment Selection, Condition, and Use)			
38. Equipment, Including Heavy (Proper Equipment Selection, Condition, and Use)			
39. Hoses Inspected			
40. Required Monitoring Equipment Calibrated & Used			
41. Ladders Set up Correctly & Inspected			
42. Right Tools for the Job are Available and in Good Condition - No Fixed Open Blade Knives (FOBKs)			
43. Other (Specify)			
Total #	0	0	

Daily Hazard Review Topic and Sign-In:

Daily Review Topic	Date

Acknowledgment Statement:

As an affected employee of Inventum Engineering, I hereby acknowledge that I have reviewed the contents of this site-specific HSP and the **daily safety meeting topic**, and that I will use the applicable personal protective equipment (PPE) and follow the procedures specified in the HASP.

Signatures of all onsite Inventum Personnel, including Direct-Hires (Required):

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

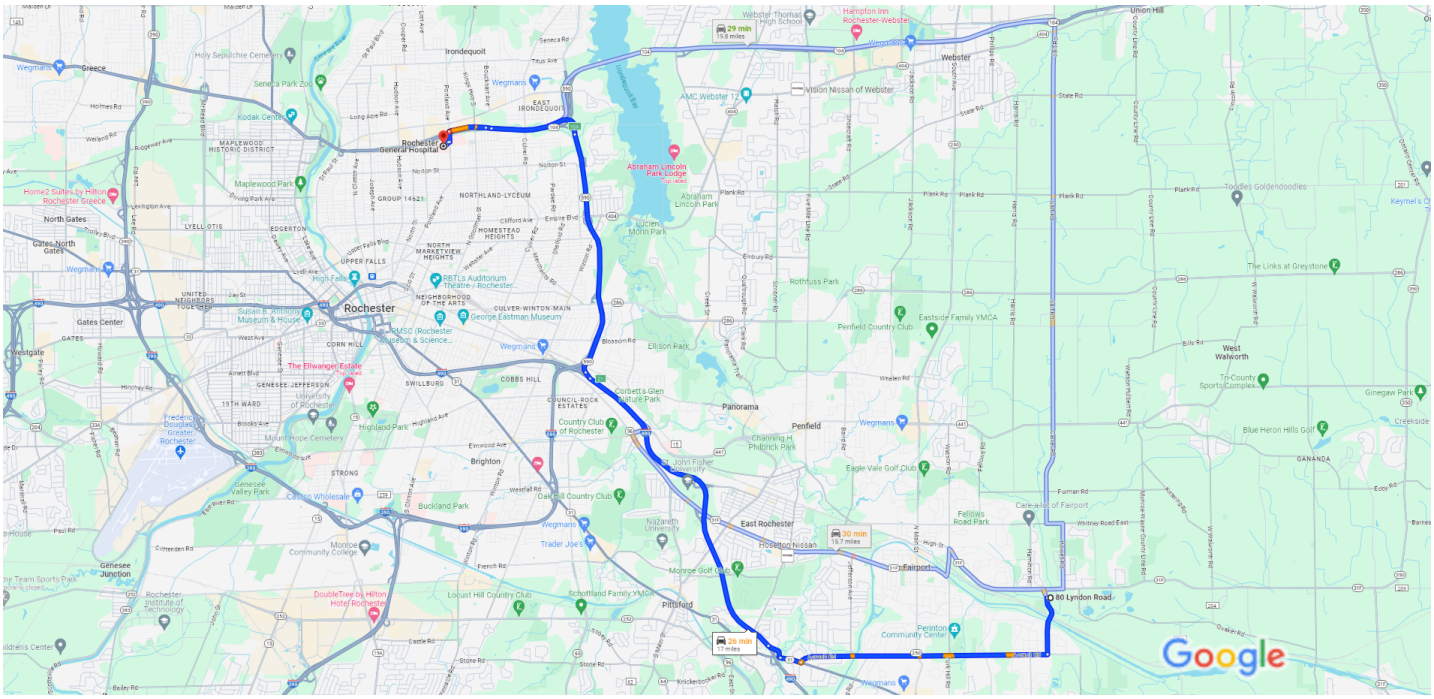
_____ Date: _____

Attachment A – Site Maps with Soil, Surface Water, and Groundwater Exceedances

Google Maps

80 Lyndon Rd, Fairport, NY 14450 to Rochester General Hospital

Drive 17.0 miles, 26 min



Map data ©2023 Google 1 mi

Directions to Hospital:

- Turn Left (South) onto Lyndon Road
- Turn Right onto Ayrault Road (0.9 miles)
- Turn Right onto NY-31 W/Palmyra Road/Pittsford Palmyra Road (3.8 miles)
- Use Right Lane to Merge onto I-490 West (0.4 miles)
- Exit at Exit 21 for NY-590 North (5.3 miles)
- Keep Right at the fork following signs for State Route 590 North and Merge onto NY-590 North
- Using Right two lane, take Exit 10A to Merge onto NY-104 West (3.7 miles)
- Take the Exit toward Goodman St/Portland Ave (1.5 miles)
- Merge onto NY-104 Service Road West
- Use the Middle Lane to Turn Left onto Portland Ave (0.6 miles)
- Turn Right onto Rochester General Hospital Drive (0.2 miles)
- Turn Left into Rochester General Hospital

Appendix C – Community Air Monitoring Plan

INVENTUM ENGINEERING, PC

Community Air Monitoring Plan

80 Lyndon Road, LLC

Brownfield Cleanup Program (BCP) Site

80 Lyndon Road

Fairport, NY 14450

September 19, 2024

441 CARLISLE DRIVE
SUITE C
HERNDON, VA 20170
WWW.INVENTUMENG.COM

Table of Contents

1 Overview

This Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at the BCP sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required.

- *The 80 Lyndon Road, LLC (80 Lyndon Road) Site will have a perimeter air monitoring program before and during the Remedial Investigation (RI). If there are detections at the property line, additional monitoring requirements will be considered*[1].
- *Three (3) perimeter air monitoring station units (1 Upwind and 2 Downwind) will be mobile and moved as the work area(s) change at the 80 Lyndon Road Site. Example monitoring locations are shown on Figure 1 provided in Appendix A-2.*

Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. The following special requirement as determined NYSDOH will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities.

- During earthwork activities for the construction of the third ice rink facility as described in the Excavation Interim Remedial Measure Work Plan, at least one air monitoring station will be maintained at a location adjacent to the entrance of the existing ice rink, and a second downwind CAMP station will be located and adjusted as need based on current wind directions.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

CAMP data summaries will be provided to the Site's NYSDEC and NYSDOH project managers on a weekly basis while active intrusive earthwork and soil investigations are occurring on the Site.

[1] The text in *italic font* are comments inserted by 80 Lyndon Road, LLC in addition to the standard CAMP Template.

2 Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

- *VOC and particulate monitoring will be incorporated into the RI and IRM activities.*

Continuous monitoring will be required for all ground intrusive activities within the footprint of the former landfill. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

- *During sampling periodic monitoring will be implemented with hand-held instruments.*

3 VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of

the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

5. The NYSDEC and NYSDOH project managers for the Site will be notified within 24 hours by phone or email if there is an exceedance of the VOC action level of 25 ppm at the perimeter of the work area as described within Section 3. The notification shall include a description of the control measures implemented to prevent further exceedances.

4 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

4. Should the action level of 150 mcg/m3 above the upwind monitoring concentration be exceeded after corrective actions are taken, work must stop and NYDEC and NYSDOH project managers for the Site must be notified within 24-hours by phone or email. The notification shall include a description of the control measures implemented to prevent further exceedances.

Appendix A-1
Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;

(b) Measurement Ranges: 0.001 to 400 mg/m^3 (1 to 400,000 :ug/m^3);

(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m^3 for one second averaging; and +/- 1.5 g/m^3 for sixty second averaging;

(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);

(e) Resolution: 0.1% of reading or 1g/m^3, whichever is larger;

(f) Particle Size Range of Maximum Response: 0.1-10;

(g) Total Number of Data Points in Memory: 10,000;

(h) Logged Data: Each data point with average concentration, time/date and data point number

(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;

(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;

(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;

(l) Operating Temperature: -10 to 50^o C (14 to 122^o F);

(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

5. The action level will be established at 150 ug/m^3 (15 minutes average). While conservative, this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m^3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m^3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m^3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential-- such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

(a) Applying water on haul roads;

(b) Wetting equipment and excavation faces;

(c) Spraying water on buckets during excavation and dumping;

(d) Hauling materials in properly tarped or watertight containers;

(e) Restricting vehicle speeds to 10 mph;

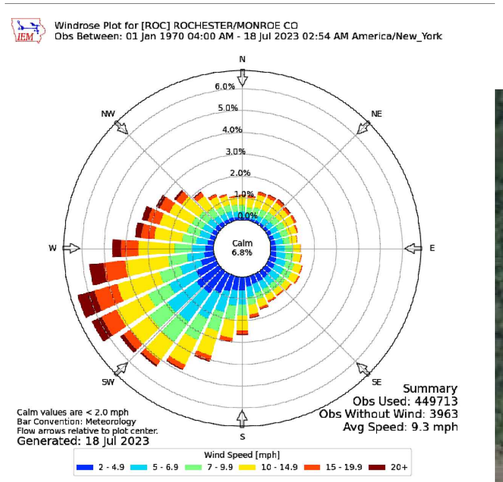
(f) Covering excavated areas and material after excavation activity ceases; and

(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m^3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

Appendix A-2
Perimeter Air Monitoring Locations



LEGEND

- EXAMPLE UPWIND CAMP MONITORING LOCATIONS
- EXAMPLE DOWNWIND MOBILE CAMP MONITORING LOCATION
- EXAMPLE DOWNWIND CAMP MONITORING STATION
- 80 LYNDON ROAD TAX PARCEL

D

120 0 60 120 240 480

1 INCH = 120 FEET (22X34)

Notes:
1. Downwind and upwind monitoring locations will be moved and relocated as necessary to account for active work areas.

References:
1. 80 Lyndon Road and Surrounding Properties Aerial, *Google Earth*, https://earth.google.com/web
2. Wind Rose Rochester/Monroe County, Iowa State University IEM, https://mesonet.agron.iastate.edu/

N

DRAWING BY CB
CHECKED
APPROVED

COMMUNITY AIR MONITORING PLAN (CAMP)

LYNDON ROAD SITE
80 LYNDON ROAD, LLC
FAIRPORT, NY14450

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
(703) 722-6049
www.InventumEng.com

FIGURE 1

DRAWING NUMBER
CAMP

Appendix D – Wetland Documents

Wetlands and Waterbodies Delineation Report – Earth Dimensions, Inc
Wetland Determination – NYSDEC
Preliminary Jurisdictional Determination – USACE

Wetland and Waterbodies Delineation Report

for

LYNDON ROAD LANDFILL

Town of Perinton

Monroe County, New York

for

Inventum Engineering

EARTH DIMENSIONS, INC.

Soils Investigations • Wetland Delineations

October 20, 2023
EDI Project Code: **W8J23**

REPORT SUMMARIZING
THE RESULTS OF
A WETLAND DELINEATION SURVEY OF

LYNDON ROAD LANDFILL

Prepared for Submission to:

U.S. ARMY CORPS OF ENGINEERS
478 MAIN STREET
BUFFALO, NEW YORK 14202

AND

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
6274 EAST AVON-LIMA ROAD
AVON, NEW YORK 14414

Prepared By:

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REPORT DATE: October 20, 2023

EDI PROJECT CODE: W8J23

PROJECT INFORMATION

Project Name	Lyndon Road Landfill
Street Address	80 Lyndon Road
SBL Number	154.03-1-26
Town	Perinton
County	Monroe
State	New York
Latitude/Longitude (NAD83)	43.09101°N, -77.40027°W
Investigation Area	24.4± Acres
USGS 7.5 Minute Topographical Map	Fairport Quadrangle
Waterway	Thomas Creek
Hydrologic Unit Code	04140101
Date of Delineation	October 17, 2023
Consultant	Earth Dimensions, Inc. 1091 Jamison Road Elma, New York 14059
Point of Contact	Scott Livingstone (716)655-1717 slivingstone@earthdimensions.com
Engineer	Inventum Engineering
Property Owner	80 Lyndon Road LLC
Authority	Section 404, Article 24
Permit/Letter Being Requested	Jurisdictional Determination

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Inventum Engineering is working on the remediation of a 24.4± acre parcel located along the east side of Lyndon Road in the Town of Perinton, County of Monroe, and State of New York. Inventum Engineering has retained Earth Dimensions, Inc. (EDI) to complete a wetland delineation report that would allow the U.S. Army Corps of Engineers (USACE) and New York State Department of Environmental Conservation (NYSDEC) to determine their jurisdictional authority over the investigation area, pursuant to Section 404 of the Clean Water Act and Articles 15 (Protection of Waters) and 24 (Freshwater Wetlands) of the New York State Environmental Conservation Law. The proposed project does not qualify for Bipartisan Infrastructure Law (BIL) funding.

A preliminary review of available information pertaining to vegetation, soils, and hydrology in the project area was implemented prior to conducting a field investigation at the site. Sources of information included the United States Geological Survey (USGS), Natural Resources Conservation Service (NRCS), National Wetland Inventory (NWI), and NYSDEC Freshwater Wetland maps. The USGS, NRCS and NWI maps indicate the potential for wetlands under federal jurisdiction. The NYSDEC map indicates the potential for wetland under state jurisdiction.

EDI applied methodology specified by the Corps of Engineers Wetlands Delineation Manual (January 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region Version 2.0 (January 2012) to perform a delineation of Federal jurisdictional wetlands within the site. EDI identified one (1) wetland area totaling 3.24± acres within the investigation area. Thomas Creek also flows through the western portion of the investigation area. The identification number of the wetlands, their acreage and boundary flags are as follows:

TABLE 1: WETLAND SUMMARY

Wetland Identification #	Geographic Center (WGS84)		Boundary Flag #	Total Acreage On-site	Wetland Type (Cowardin)	Wetland Type (Reschke)
	Latitude	Longitude				
Wetland 1	43.08971	-77.40053	W1-1 through W1-73	3.24±	PSS1E/PEM1F	Scrub-shrub/Emergent Marsh
Total Wetland Acreage:				3.24±		

TABLE 2: STREAM & DRAINAGE SUMMARY

Stream Identification #	Geographic Center (WGS84)		Waterway	DEC Class	Linear Feet On-site	Highwater Width (Ft)	Flow Regime	Substrate	Classification (Cowardin)
	Latitude	Longitude							
Stream 1	43.09065	-77.40128	Thomas Creek	B	1145feet	25-35	Perennial	Silt, Organics	R2UB4

SECTION I: INTRODUCTION

Inventum Engineering is working on the remediation of a 24.4± acre parcel on the east side of Lyndon Road in the Town of Perinton, County of Monroe, and State of New York. The project has been given the name Lyndon Road Landfill and is located on USGS 7.5 minute quadrangle map indexed as Fairport (Figure 1). The field work was completed on October 17, 2023, using a Trimble TDC650 GPS to locate wetland and drainage boundaries.

Inventum Engineering has retained Earth Dimensions, Inc. (EDI) to complete a wetland delineation study at this site. The investigation was designed to facilitate a determination of the extent of USACE and NYSDEC jurisdiction over the project area pursuant to Section 404 of the Clean Water Act and Articles 15 (Protection of Waters) and 24 (Freshwater Wetlands) of the New York State Environmental Conservation Law.

EDI has performed a wetland delineation study at the site under guidelines specified by the *Corps of Engineers Wetlands Delineation Manual*, dated January 1987 (referred to hereafter as the Corps Manual) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region version 2.0* (January 2012) (referred to hereafter as the Northcentral and Northeast Regional Supplement). The purpose of this report is to present EDI's methods, results, conclusions and recommendations with respect to the Lyndon Road Landfill project site.

SECTION II: SITE DESCRIPTION

The Lyndon Road Landfill project area is comprised of a 24.4± acre irregular shaped investigation area on the east side of Lyndon Road and south of Macedon Center Road which is outlined on Figure 1 and depicted on the Wetland Delineation Map included in Appendix A (Figure 6).

The current topography of the Lyndon Road Landfill site is gently to moderately sloping. The site consists of a former landfill and on-site topography has been altered from its natural state. The upland within the investigation area consisted of successional northern hardwoods, successional old field, and successional shrubland communities. The wetland areas were found to consist of deep emergent marsh, and scrub-shrub swamp communities. The vegetative communities of the investigation area are described according to *Ecological Communities of New York State* (Edinger et al. 2014).

SECTION III: PRELIMINARY DATA REVIEW

A. SUMMARY OF FINDINGS

Several sources of information may be reviewed to facilitate the completion of a wetland delineation study. In some cases, it is even possible to make a preliminary office wetland determination based upon available vegetation, soils, and hydrologic information for a project area. EDI completed a preliminary review of several data sources at the onset of this study. The results of the review are summarized as follows:

1. USGS 7.5 MINUTE TOPOGRAPHICAL MAP

Figure 1 depicts the Lyndon Road Landfill project site on the Fairport quadrangle map. The figure depicts the gentle to moderately sloping topography of the site. Thomas Creek flows south through the western portion of the investigation area.

2. USFWS NATIONAL WETLANDS INVENTORY MAP

The National Wetlands Inventory (NWI) map obtained from the USFWS Wetland Mapper http://www.fws.gov/wetlands/Data/Mapper.html displays four (4) wetland types, PFO1E, PSS1E, R2UBHx, and R5UBH within the investigation area. The wetlands can be decoded as:
[P] Palustrine, [FO] Forested, [1] Broad leaved-deciduous, [E] Seasonally flooded/saturated
[P] Palustrine, [SS] Scrub-shrub, [1] Broad leaved-deciduous, [E] Seasonally flooded/saturated
[R] Riverine, [2] Lower perennial, [UB] Unconsolidated bottom, [H] Permanently flooded, [x] Excavated
[R] Riverine, [5] Unknown perennial, [UB] Unconsolidated bottom, [H] Permanently flooded

3. NATURAL RESOURCES CONSERVATION SERVICE SOILS MAP

Figure 3 presents the project area outlined on a copy of the Monroe County Soil Survey map from the National Cooperative Soil Survey. As shown on that figure, the site has the following soil types: **Soil Conservation Service Legend**

Map Unit Symbol	Map Unit Name	Hydric Rating
Ca	Canandaigua silt loam	95
CoB	Colonie loamy fine sand, 0 to 6% slopes	0

HlA	Hilton loam, 0 to 3% slopes	0
Ms	Muck, shallow	100
PaC	Palmyra gravelly fine sandy loam, 8 to 15% slopes	0
PgB	Palmyra gravelly loam, 3 to 8% slopes	0

Canandaigua Series: The Canandaigua series consists of very deep, poorly and very poorly drained soils formed in silty glacio-lacustrine sediments. These soils are on lowland lake plains and in depressional areas on glaciated uplands. Slope ranges from 0 to 3 percent. Mean annual temperature is 49 degrees F. and mean annual precipitation is 39 inches.

Colonie Series: The Colonie series consists of very deep, well drained to excessively drained soils formed in glaciolacustrine, glaciofluvial, or eolian deposits dominated by fine sand and very fine sand. They are on nearly level to steeply dissected slopes on Wisconsinan age lake plains, dunes, outwash plains, beach ridges, and deltas. Saturated hydraulic conductivity is high through very high in the mineral soil. The mean annual temperature is about 49 degrees F, and the mean annual precipitation is about 37 inches.

Hilton Series: The Hilton series consists of very deep, moderately well drained soils formed in till of Wisconsin age, derived from sandstone and limestone. They are nearly level to sloping soils on till plains and glaciated dissected plateaus. Saturated hydraulic conductivity is moderately high or high in the mineral solum and moderately high to low in the substratum. Slope ranges from 0 to 15 percent. Mean annual temperature is 47 degrees F. and mean annual precipitation is 39 inches..

Muck Series: Soils are deep to shallow, very poorly drained, organic soils developed in depression or old glacial swamps from woody and fibrous plants. These soils are generally level but are gently sloping where they occupy the outer edges of depressions

Palmyra Series: The Palmyra series consists of very deep, well drained to somewhat excessively drained soils formed in glacial outwash. They are nearly level to very steep soils formed in loamy material overlying calcareous, stratified gravel and sand. Saturated hydraulic conductivity is moderately high or high in the solum and high or very high in the substratum. Slope ranges from 0 to 40 percent. Mean annual temperature is 48 degrees F. and mean annual precipitation is 37 inches.

The U.S. Department of Agriculture's National Technical Committee for Hydric Soils Criteria has developed a list of soils that often display hydric soil characteristics. Hydric soil typically forms in places of the landscape where surface water periodically collects for some time and/or where groundwater discharges sufficient to create waterlogged or anaerobic soils. Such anaerobic soils can support the growth and survival of hydrophytic vegetation that is tolerant of such conditions. The Hydric Rating indicates the proportion of map units that meets the criteria for hydric soils. Soil units are designated as "hydric," "predominantly hydric," "partially hydric," "predominantly nonhydric," or "nonhydric" depending on the hydric rating of its respective components. "Hydric" means that all components listed for a given map unit are rated as being hydric. "Predominantly hydric" means components that comprise 66 to 99 percent of the map unit are rated as hydric. "Partially hydric" means components that comprise 33 to 66 percent of the map unit are rated as hydric. "Predominantly nonhydric" means components that comprise up to 33 percent of the map unit are rated as hydric. "Nonhydric" means that none of the components are rated as hydric. Wetland hydrologic conditions, hydric soils, and hydrophytic vegetation are the three criteria of a wetland.

4. NYSDEC Freshwater Wetlands Map

The NYSDEC Freshwater Wetlands map obtained from the online NYSDEC Environmental Resource Mapper displays state jurisdictional Freshwater Wetland PR-1 and its 500 foot check zone within and adjacent to the investigation area.

B. RESULTS OF AGENCY INFORMATION REVIEW

The preliminary data review revealed that the Corps may have jurisdiction over wetlands at the project location. The evidence consisted of wetland depicted on the USGS map (Figure 1), potential federally regulated wetlands on the NWI map (Figure 2) and hydric soils and soils with possible inclusions depicted within the project area as shown on the NRCS map (Figure 3). The preliminary data review indicated that NYSDEC may have jurisdiction over wetlands on site as depicted on the NYSDEC Resource Mapper (Figure 4). Therefore, it was considered necessary to perform a field investigation at the site in order to determine the presence of federal and state protected wetlands. The methods specified in the Corps of Engineers Wetlands Delineation Manual (January 1987) and Northcentral and Northeast Regional Supplement Version 2.0 (January 2012) were employed during the field

investigation. Procedures, results, and conclusions of the wetland delineation study are presented in the remainder of this report.

SECTION IV: FIELD INVESTIGATION PROCEDURES

WETLANDS:

Step 1

EDI applied methodology specified by the 1987 Corps of Engineers Wetlands Delineation Manual and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region to perform a delineation of Federal jurisdictional wetlands within the site. EDI used the Level 2 Routine Determination method (on-site inspection necessary) since insufficient information was available for making a determination for the entire project area. This methodology is consistent with Part IV, Section D of the Corps Manual.

Step 2

EDI's initial evaluation of the project area revealed that no atypical situations existed. If an atypical situation had existed, EDI would have used methodology outlined in Part IV, Section F of the Corps manual and/or Section 5 of the Northcentral and Northeast Supplement.

Step 3

EDI made the determination that normal environmental conditions were present, as the area was not lacking hydrophytic vegetation or hydrologic indicators due to annual, seasonal or long-term fluctuations in precipitation, surface water, or groundwater levels. The Northcentral and Northeast Supplement defines the growing season as beginning when one of the following indicators of biological activity are evident in a given year: (1) above-ground growth and development of vascular plants and/or (2) soil temperature measured at 12" below ground surface reaches 41ºF. The end of the growing season is defined as the point at which deciduous species lose their leaves or the last herbaceous plants cease flowering and their leaves become dry or brown, whichever comes latest.

Step 4

In order to accurately identify the limits of various vegetative communities and extent of wetlands on-site, a routine determination method was used. As depicted in Appendix A and included in Appendix B, thirteen (13) data points were used to characterize the site.

Step 5

The plant community inhabiting each observation point was characterized in accordance with methods specified in the Northcentral and Northeast Regional Supplement. Dominant plant species were identified within four vegetative strata (i.e. herb, sapling/shrub, tree and liana (woody vines) at each sampling point. The Northcentral and Northeast Regional Supplement defines the vegetative strata in the following manner:

Herb – A non-woody individual of a macrophytic species. Seedlings of woody plants (including vines) that are less than 3.28 feet in height are considered to be herbs.

Sapling/Shrub – A layer of vegetation composed of woody plants < 3.0 inches in diameter at breast height but greater than 3.28 feet in height, exclusive of woody vines.

Tree – A woody plant > 3.0 inches in diameter at breast height, regardless of height (exclusive of woody vines)

Liana – A layer of vegetation in forested plant communities that consist of woody vines greater than 3.28 feet in height.

As outlined in the manual, the quadrant sizes used for the vegetative strata were (i) a 3.28-foot radius for herbs; (ii) a ten-foot radius for saplings/shrubs and woody vines; and (iii) a 30-foot radius for trees. Dominant plant species were estimated using aerial coverage methods. Dominant species are defined in the Corps Manual as the most abundant plant species that when ranked in descending order of abundance and cumulatively totaled immediately exceed 50 percent of the total dominance measure for the stratum, plus any additional species comprising 20 percent or more of the total dominance measure.

The wetland indicator status (OBL, FACW, FAC, FACU, or UPL) listed for each identified species by the U.S. Fish and Wildlife Service in the National List of Plant Species that Occur in Wetlands: Northeast (Region 1) was recorded. The U.S. Fish and Wildlife wetland indicator status listings are defined as follows:

OBL – Plants that occur almost always (estimated probability >99 percent) in wetlands under natural conditions, but which may also occur rarely (estimated probability < 1 percent) in nonwetlands.

FACW – Plants that occur usually (estimated probability >67 percent to 99 percent) in wetlands, but also occur (estimated probability 1 percent to 33 percent) in nonwetlands.

FAC – Plants with a similar likelihood (estimated probability 33 percent to 67 percent) of occurring in both wetlands and nonwetlands.

FACU – Plants that occur sometimes (estimated probability 1 percent to <33 percent) in wetlands but occur more often (estimated probability >67 percent to 99 percent) in nonwetlands.

UPL – Plants that occur rarely (estimated probability < 1 percent) in wetlands but occur almost always (estimated probability >99 percent) in nonwetlands under natural conditions.

The plant community data was summarized on the data forms provided in the Northcentral and Northeast Regional Supplement included in this report as Appendix B.

Step 6

Plant data from each observation point were tested against the hydrophytic vegetation criterion specified in the Corps Manual and Northcentral and Northeast Regional Supplement. The Northcentral and Northeast Regional Supplement identifies a four-tiered approach for making a determination of whether or not the hydrophytic vegetation criteria is met for a sample plot. Indicator 1 (Rapid Test for Hydrophytic Vegetation) was first applied to determine if all dominant species across all strata are rated OBL and/or FACW. If Indicator 1 did not meet the hydrophytic vegetation criteria, Indicator 2 was then applied (dominance test); if greater than 50% of all plant species across all strata were rated OBL, FACW, or FAC, the hydrophytic vegetation criteria was considered met. In rare cases, when Indicators 1 and 2 did not meet the hydrophytic vegetation criteria but soils and hydrology criteria were met, Indicators 3 (Prevalence Index) and 4 (Morphological Adaptations) were used to make a final determination. All observation points that met the hydrophytic vegetation criterion were considered potential wetlands. Soils were then characterized.

Step 7

The Corps Manual specifies that soils need not be characterized (and are assumed hydric soils) at sampling points meeting the hydrophytic vegetation criterion if: (i) all dominant plant species have an indicator status of OBL, or (ii) all dominant species have an indicator status of OBL and/or FACW, and the wetland boundary is abrupt (at least one dominant OBL species must be present). All observation points sampled during this field investigation were examined directly for soil and hydrologic characteristics.

Step 8

At observation points requiring a soil evaluation, soil borings were performed by an EDI Soil Scientist using methods specified in the Northcentral and Northeast Regional Supplement. Soil pits were dug using a tile spade. Testpits were generally dug to a depth of 20 inches below ground surface. Soils were examined for any of the hydric soil indicators, as outlined in the Field Indicators of Hydric Soils in the United States. A determination was made as to whether or not the hydric soil criterion was met. Soils data was recorded on the data forms included in Appendix B of this report.

Step 9

EDI's Soil Scientist examined hydrologic indicators using methods specified by the Northcentral and Northeast Regional Supplement at each observation point. The wetland hydrology criterion was met if: (i) one or more primary field indicators was materially present, (ii) available hydrologic records provided necessary evidence, or (iii) two or more secondary indicators were present. Results were recorded on data forms taken from the Corps Manual and are included in this report as Appendix B.

Step 10

A wetland determination was made for every observation point. If a sample plot met the hydrophytic vegetation, hydric soil, and wetland hydrology criteria, the area was considered to be wetland.

Step 11

Based on the results of the transected data, wetland boundaries were established for each identified wetland using survey ribbon labeled “wetland delineation” and numbered consecutively along each wetland boundary. As outlined in the Corps Manual, the placement of flags was based on the limits of areas where all three parameters were met. Wetland flags were labeled W1-1 through W1-73.

STREAMS & DRAINAGES:

The federally regulated Ordinary High Water (OHW) mark of streams within the Project area were delineated utilizing the definitional criteria as presented in Title 33, Code of Federal Regulations, Part 328, and the USACE Regulatory Guidance Letter 05-05 – Guidance on Ordinary

High Water Mark Identification. Each stream is categorized in regard to its flow regime as perennial, intermittent, or ephemeral, as defined by the USACE. The Ordinary High Water (OHW) mark for each stream is surveyed using the Trimble Geo 7X GPS. Each stream is assigned a letter designation, and survey points are numbered consecutively. Substrate characteristics and water depth are noted. Streams classified as AA, A, B, C, C(t), C(ts) and D in the State of New York are regulated by NYSDEC under Article 15 Use and Protection of Waters. Streams are given classifications which designate the level of protection afforded to each waterbody. Class AA and A are assigned to sources of drinking water. Class B streams are best suited for swimming and other contact recreation, but not drinking water. Class C streams identify waters that support fishing and non-contact activities. A classification with (t) designated a stream with the potential to support trout populations. A classification of (ts) identifies waters that may support trout spawning. Class D waters are the lowest classification and are often highly imperiled.

SECTION V: RESULTS AND CONCLUSIONS

Earth Dimensions, Inc. (EDI) has completed a wetland delineation study at the Lyndon Road Landfill site located in the Town of Perinton, County of Monroe, and State of New York. A field investigation was conducted by a Soil Scientist and a Wetland Ecologist from EDI. The wetland delineation study identified one (1) wetland totaling 3.24± acres present within the Lyndon Road Landfill site. In addition, an 1145 linear foot portion of Thomas Creek, a Class B stream, was identified. No waterbodies were identified within the investigation area.

Figure 5 depicts the vegetative communities as they existed at the time of the investigation. The uplands within the investigation area were comprised of successional northern hardwoods, successional shrubland, and successional old field communities. The wetland areas were found to consist of deep emergent marsh and scrub-shrub swamp communities. The vegetative communities of the investigation area are described according to Ecological Communities of New York State (Edinger et al. 2014).

The successional northern hardwood community was dominated by the following species: eastern cottonwood (*Populus deltoides*), American sycamore (*Platanus occidentalis*), white ash (*Fraxinus americana*), poison ivy (*Toxicodendron radicans*) and white snakeroot (*Ageratina altissima*).

The successional old field community was dominated by the following species: Kentucky bluegrass (*Poa pratensis*).

The successional shrubland community was dominated by the following species: eastern cottonwood (*Populus deltoides*), common buckthorn (*Rhamnus cathartica*), mugwort (*Artemesia vulgaris*), summer grape (*Vitis aestivalis*), multiflora rose (*Rosa multiflora*), black swallow-wort (*Vincetoxicum nigrum*), tatarian honeysuckle (*Lonicera tatarica*), black locust (*Robinia pseudoacacia*), black walnut (*Juglans nigra*), white ash (*Fraxinus americana*), poison ivy (*Toxicodendron radicans*) and white snakeroot (*Ageratina altissima*).

Wetland W1 is a 3.24± acre scrub-shrub swamp/deep emergent marsh. The scrub-shrub swamp portion was dominated by green ash (*Fraxinus pennsylvanica*), common buckthorn (Rhamnus cathartica), common reed (Phragmites austrialis), summer grape (Vitis aestivalis), black willow (*Salix nigra*), eastern cottonwood (*Populus deltoides*), and American bur-reed (*Sparganium americanum*). The deep emergent marsh portion was dominated by American sycamore (*Platanus occidentalis*), black willow (*Salix nigra*), green ash (*Fraxinus pennsylvanica*), multiflora rose (*Rosa multiflora*), lizard's tail (*Saurarus cernuus*), creeping jenny (*Lysimachia nummularia*), box elder (*Acer negundo*) American bur-reed (*Sparganium americanum*), and summer grape (*Vitis aestivalis*). Soils within wetland W1 are mapped as Canandaigua silt loam and shallow muck, and had topsoil colors of 10YR2/1 with 3% 10YR5/8 mottles, 10YR4/1 with 15% 10YR5/8 mottles, 10YR4/1 with 5% 10YR5/8 mottles, and 10YR2/1 with no mottles. Wetland W1 had subsoil colors of 10YR4/1 with 5% 10YR5/8 mottles, 10YR5/1 with 20% 10YR5/8 mottles, 10YR5/1 with 10% 10YR5/8 mottles, and 10YR6/1 with 7% 10YR5/8 mottles. The texture is gravelly loam, loam, and muck. This soil fits the NRCS F3 indicator (Depleted Matrix) and F6 indicator (Redox Dark Surface). Hydrology indicators present in Wetland W1 included surface water (A1), high water table (A2), saturation (A3), Inundation visible on aerial imagery (B7), and Water-Stained Leaves (B9). Wetland W1 shows an apparent continuous connection to a Water of the U.S. It is EDI's professional opinion that wetland W1 is jurisdictional under Section 404 of the Clean Water Act.

Stream 1 is identified as Thomas Creek and flows south through the western portion of the site. This perennial channel is identified as a Class B stream by NYSDEC standards. The substrate consists of silt and organics, with vegetated banks. Within the project area, Stream 1 is approximately 30 feet wide (35 feet at top of bank) with an average water depth of 2-4 feet. EDI utilizes office and field observations to determine stream classifications. Stream 1 was identified as a perennial channel due to it being represented as a solid blue line on the USGS Topography Map (Figure 1), a defined bed and bank, and a lack of vegetation within the stream.

A map which depicts the site boundaries and the location of all observation points established during the field survey is included as Figure 6 in Appendix A of this report. Data forms are included as Appendix B. Appendix C includes representative photographs of the project area. Appendix D notes the references used during the preparation of this report and during the field investigation. Appendix E provides the names, addresses and phone numbers of the survey personnel involved in the wetland delineation study.

SECTION VI: RECOMMENDATIONS

One (1) wetland area and one (1) stream were identified during the course of a field investigation based upon the three-parameter technique (vegetation, soils, and hydrology) outlined in the Corps Manual and Northcentral and Northeast Regional Supplement. EPA provided preliminary guidance on August 29, 2023 in response to the May 25, 2023, the U.S. Supreme Court ruling in the Sackett v EPA case. Wetland W1 has a continuous connection to a traditionally navigable water and it is EDI's opinion that wetland W1 is federally jurisdictional. It is EDI's opinion that a portion of wetland W1 is part of Freshwater Wetland PR-1 and would be regulated by NYSDEC under Article 24 of the New York Conservation Law. USACE and NYSDEC approach their regulatory analyses by first considering avoidance of wetlands and minimization of wetland losses. EDI recommends the following:

(1) Submit this report to USACE and NYSDEC with a request for a wetland boundary confirmation and jurisdictional determination.

(2) If no impacts are proposed to federal or state regulated wetlands, state regulated 100-foot adjacent area or Thomas Creek based on the outcome of the jurisdictional determination, it is the professional opinion of EDI that the project may proceed without the need for Section 404, or Article 24 Permits.

(3) If any NYSDEC regulated upland adjacent area or federal or state jurisdictional wetland impacts are proposed, it is EDI's recommendation that a Joint Application for Permit and supporting documentation be submitted to the USACE and NYSDEC with a request for a Section 404 Permit, Section 401 Water Quality Certification, and/or an Article 24 Permit.

LYNDON ROAD LANDFILL

APPENDIX A - FIGURES

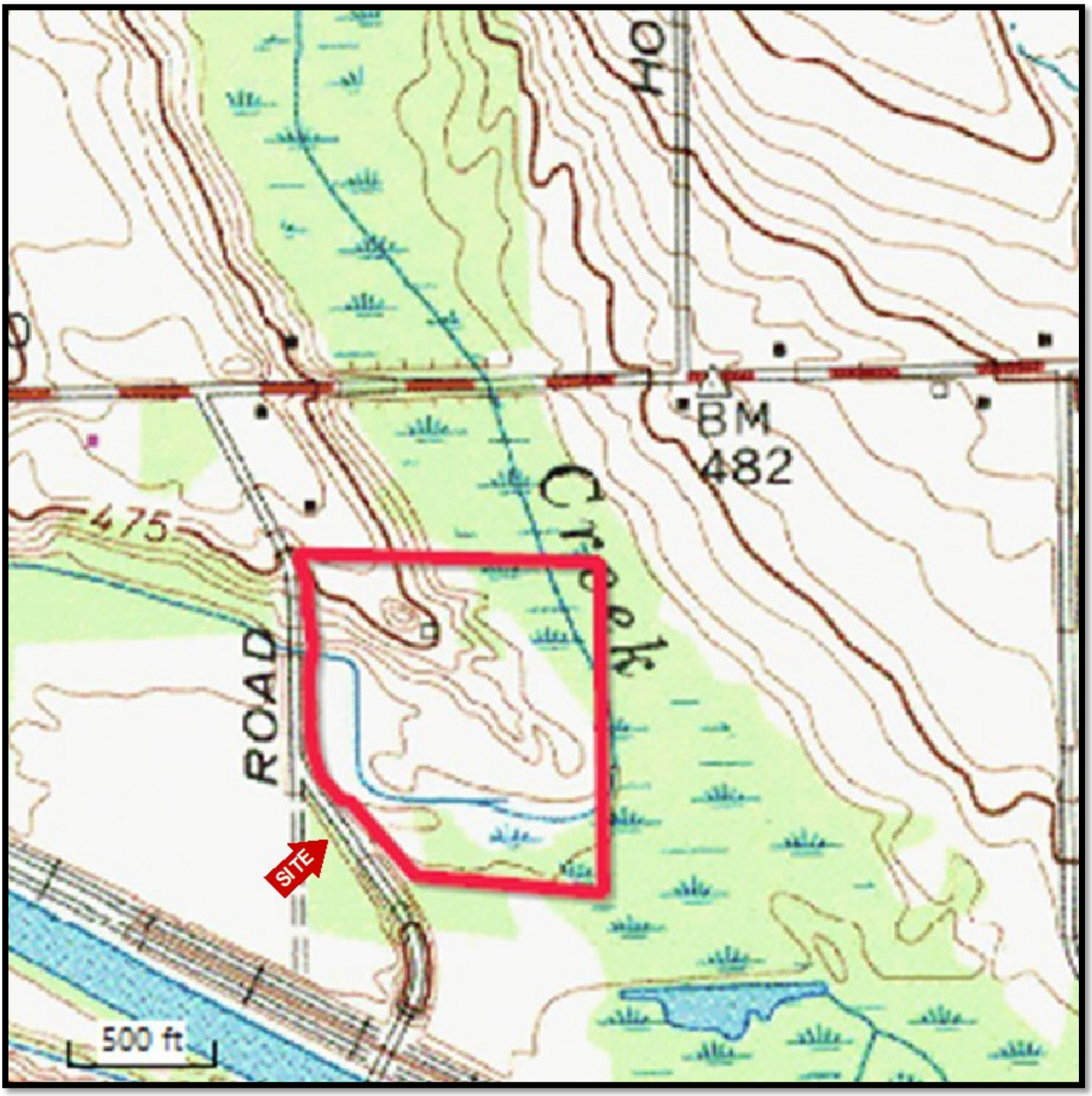


FIGURE 1: USGS 7.5 MINUTE TOPOGRAPHICAL MAP

Fairport Quadrangle / U.S. Geological Survey

Lyndon Road Landfill

Town of Perinton, Monroe County, New York

FIGURE 2: NATIONAL WETLANDS INVENTORY MAP

http://www.fws.gov/wetlands/data/mapper.HTML (Visited 10/13/23)

Lyndon Road Landfill

Town of Perinton, Monroe County, New York

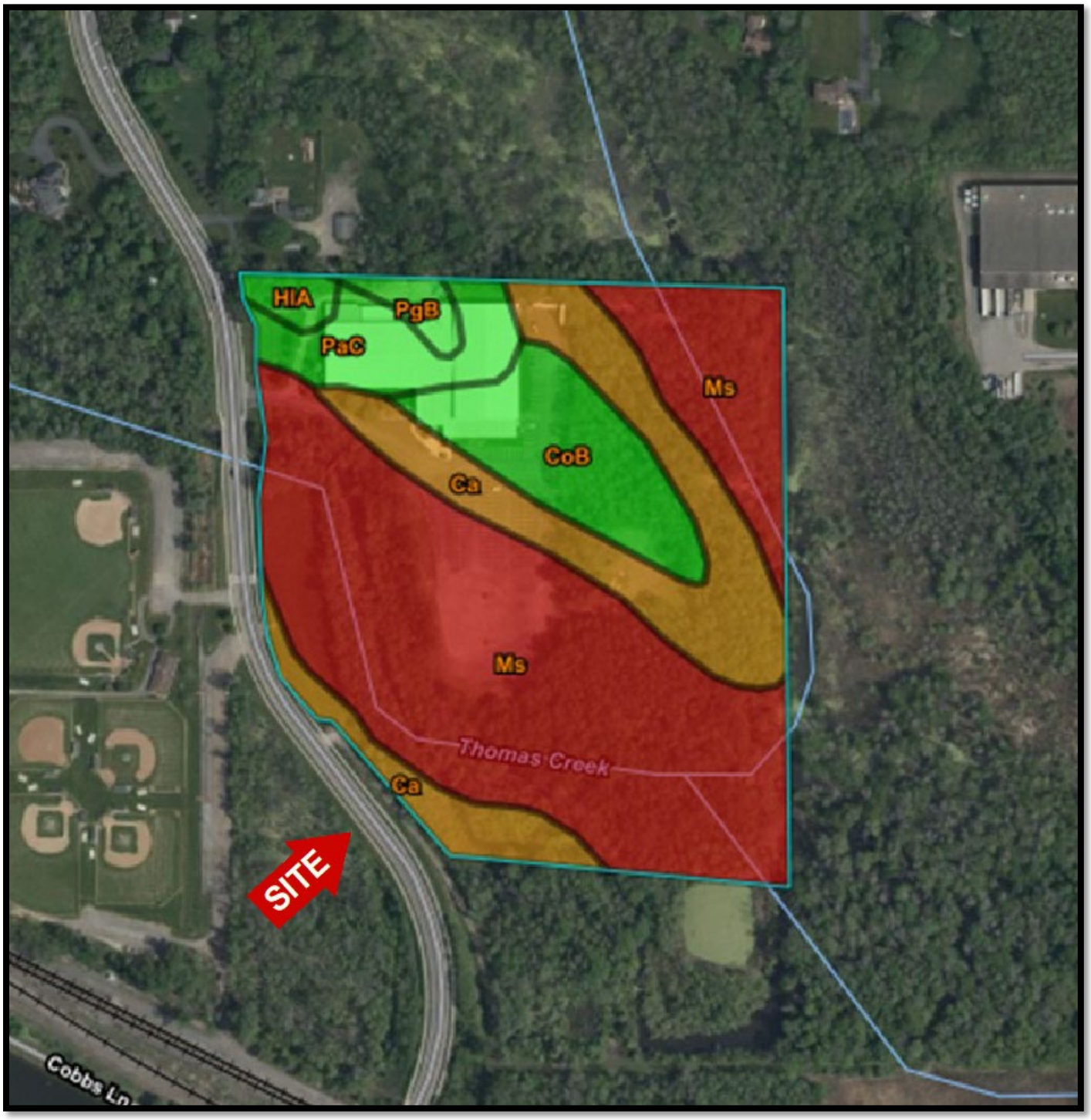


FIGURE 3: NRCS SOIL SURVEY MAP

http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (Visited 10/13/23)

Lyndon Road Landfill

Town of Perinton, Monroe County, New York

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Monroe County, New York
Survey Area Data: Version 22, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 27, 2020—Jun 15, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ca	Canandaigua silt loam	95	5.0	21.8%
CoB	Colonie loamy fine sand, 0 to 6 percent slopes	0	2.5	11.0%
HlA	Hilton loam, 0 to 3 percent slopes	0	0.3	1.5%
Ms	Muck, shallow	100	13.3	57.4%
PaC	Palmyra gravelly fine sandy loam, 8 to 15 percent slopes	0	1.5	6.7%
PgB	Palmyra gravelly loam, 3 to 8 percent slopes	0	0.4	1.6%
Totals for Area of Interest			**23.1**	**100.0%**

FIGURE 4: NYSDEC ENVIRONMENTAL RESOURCE MAPPER

https://gisservices.dec.ny.gov/gis/erm/ (Visited 10/13/23)

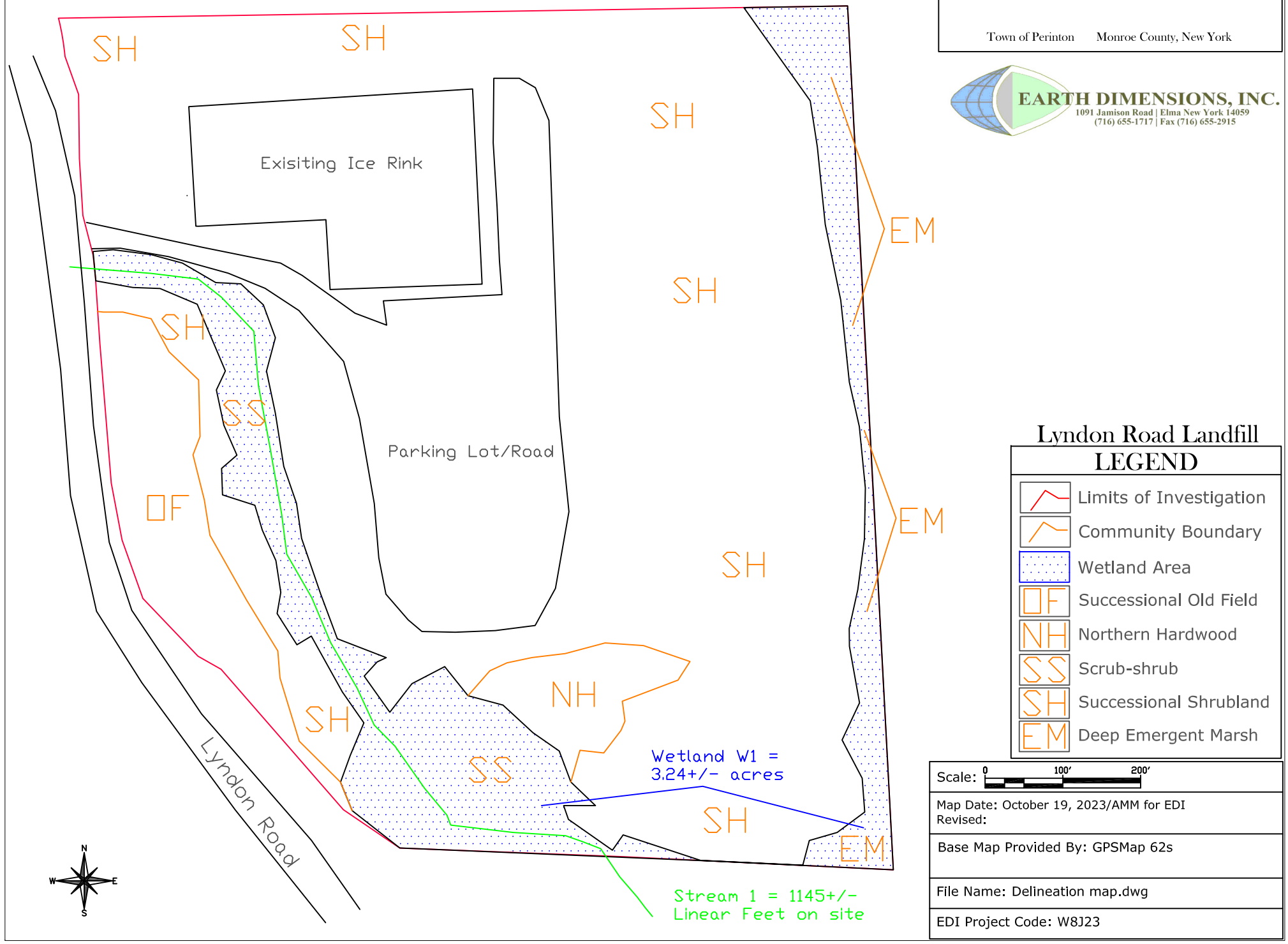
Lyndon Road Landfill

Town of Perinton, Monroe County, New York

Figure 5 - General Vegetation Map

Town of Perinton Monroe County, New York

EARTH DIMENSIONS, INC.
1091 Jamison Road | Elma New York 14059
(716) 655-1717 | Fax (716) 655-2915



Lyndon Road Landfill
LEGEND

- Limits of Investigation
- Community Boundary
- Wetland Area
- OF — Successional Old Field
- NH — Northern Hardwood
- SS — Scrub-shrub
- SH — Successional Shrubland
- EM — Deep Emergent Marsh

Scale: 0 100' 200'

Map Date: October 19, 2023/AMM for EDI
Revised:

Base Map Provided By: GPSMap 62s

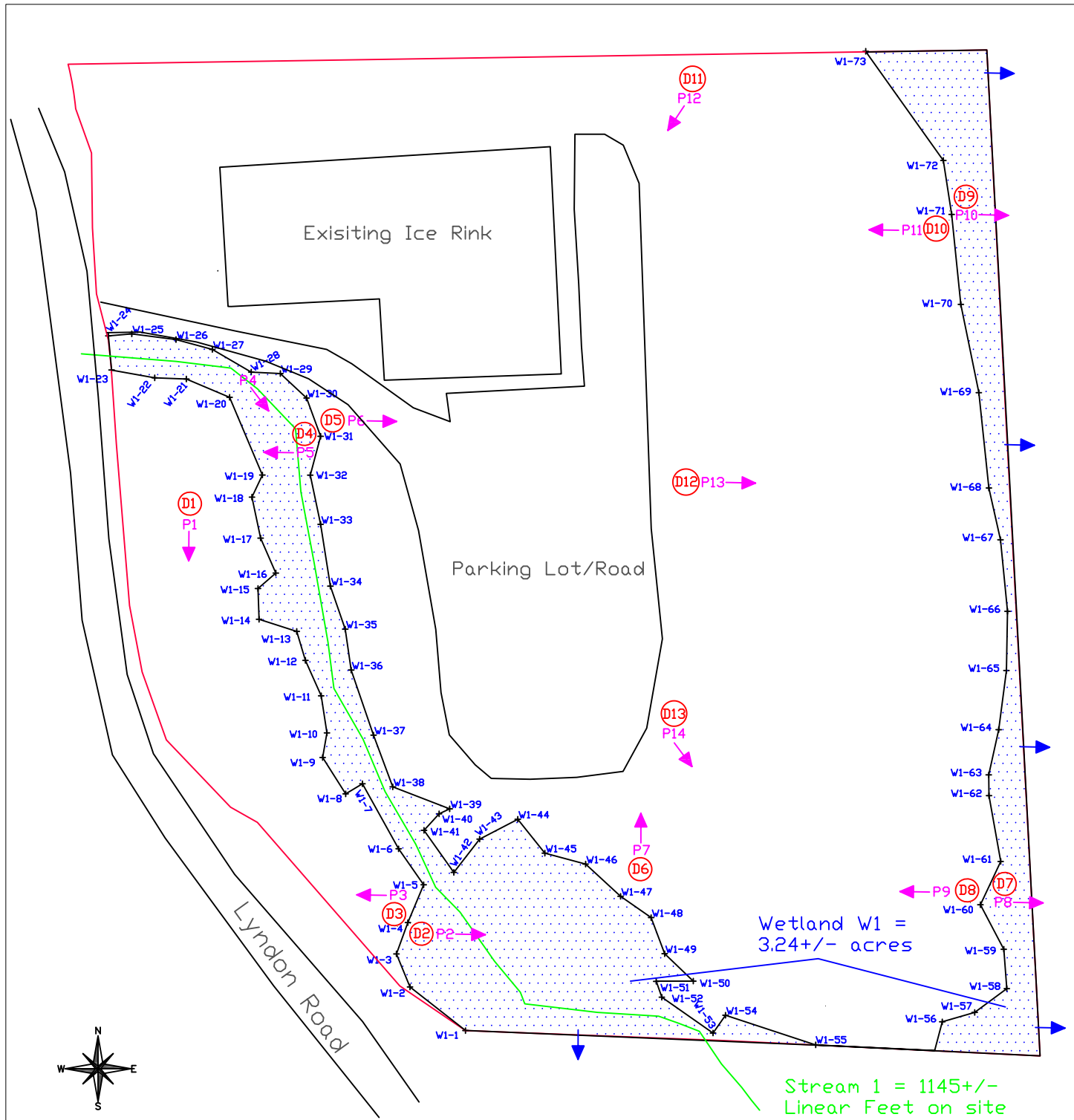
File Name: Delineation map.dwg

EDI Project Code: W8J23

Figure 6 - Wetland Delineation Map

Town of Perinton Monroe County, New York

EARTH DIMENSIONS, INC.
1091 Jamison Road | Elma New York 14059
(716) 655-1717 | Fax (716) 655-2915



Lyndon Road Landfill

LEGEND

- Limits of Investigation
- Streams
- W1-1 Wetland Boundary Flag
- Wetland Area
- P1 Photo Location
- D1 Data Point Location

Scale: 0 100' 200'

Map Date: October 19, 2023/AMM for EDI
Revised:

Base Map Provided By: GPSMap 62s

File Name: Delineation map.dwg

EDI Project Code: W8J23

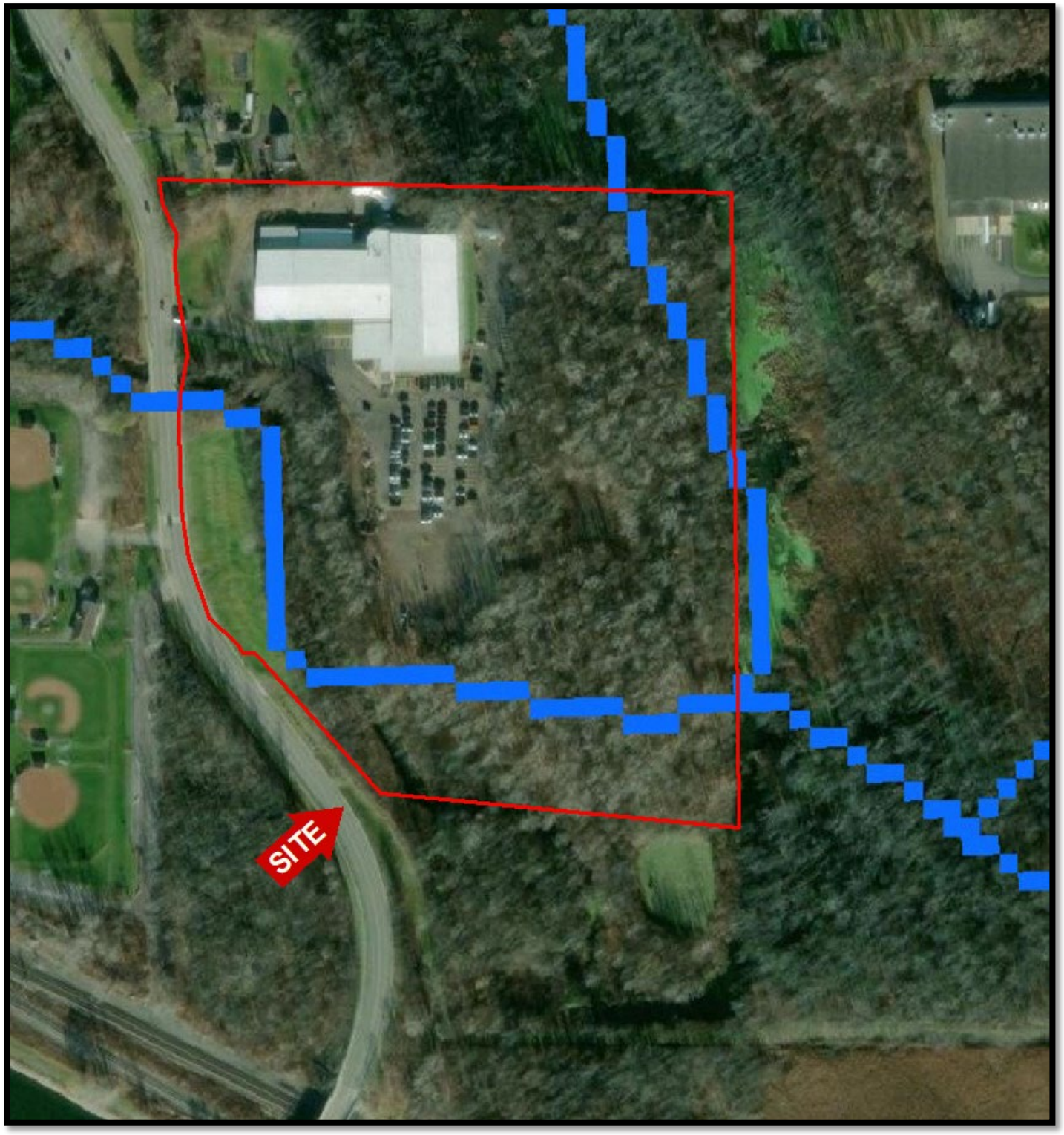


FIGURE 7: DRAINAGE MAP

https://streamstats.usgs.gov/ss/ (Visited 8/10/22)

Lyndon Road Landfill

Town of Perinton, Monroe County, New York

FIGURE 8: SITE AERIAL PHOTOGRAPH

https://gis.erie.gov/Html5Viewer133/index.html?viewer=ErieCountyNY.HTML5_2_11_0

Lyndon Road Landfill

Town of Perinton, Monroe County, New York

Figure 9: Aerial Photo With Wetlands
GoogleEarth.com (Visited 10/13/23)
Lyndon Road Landfill
Town of Perinton, Monroe County, New York

Figure 10: Soils Map With Wetlands
GoogleEarth.com (Visited 10/13/23)
Lyndon Road Landfill
Town of Lyndon, Monroe County, New York

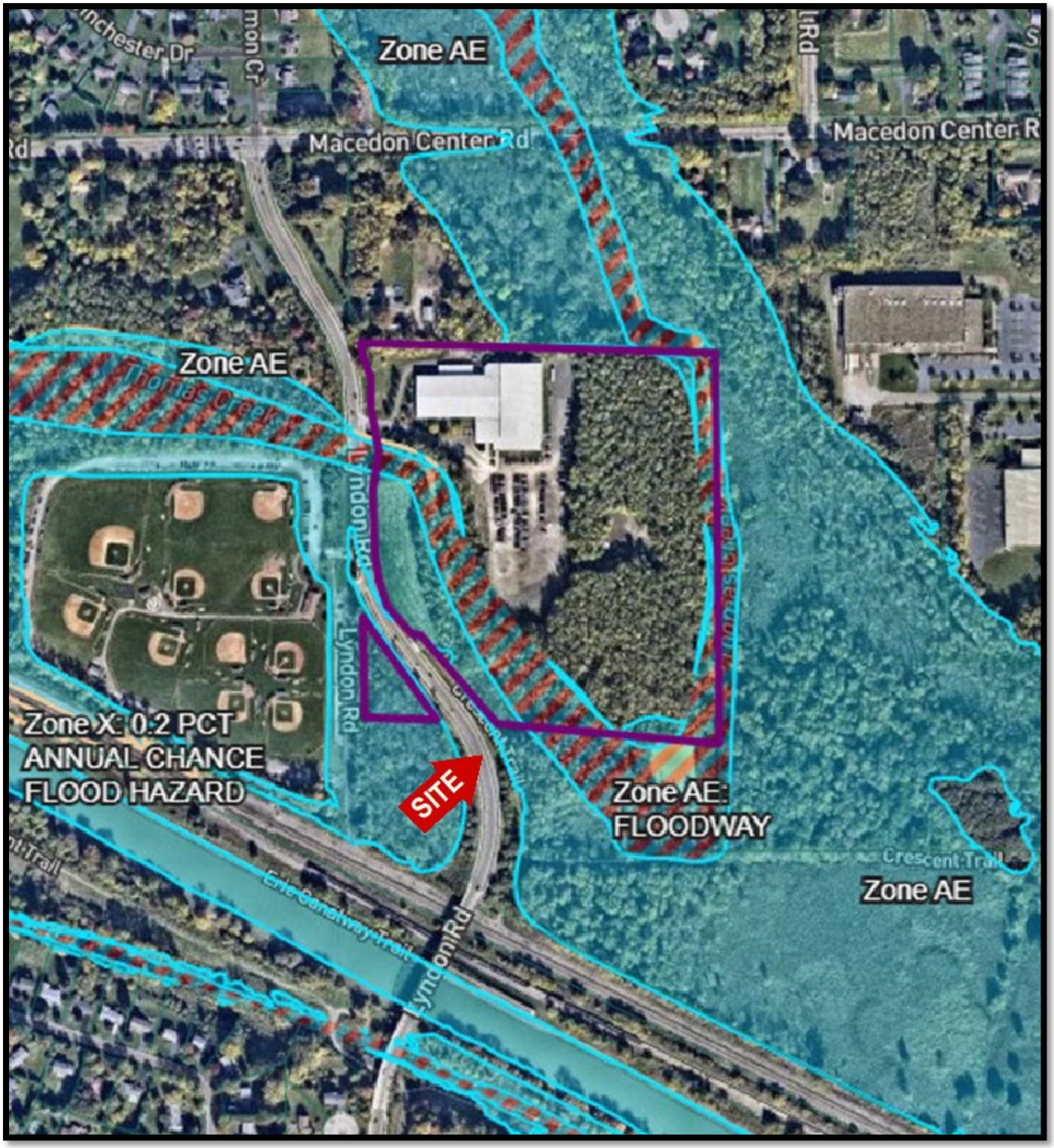


FIGURE 11: FEMA MAP

https://www.fema.gov/flood-maps (Visited 10/13/23)

Lyndon Road Landfill

Town of Perinton, Monroe County, New York

LYNDON ROAD LANDFILL

APPENDIX B – DATA SHEETS

Project Code: W8J23

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Lyndon Road Landfill – 80 Lyndon Road Town/County: Perinton/Monroe County Sampling Date: October 17, 2023

Applicant/Owner: Inventum Engineering State: New York Sampling Point: D1

Investigator(s): Scott Livingstone & Alex Molik Section, Township, Range: 154.03-1-26

Landform (hillslope, terrace, etc.): FILL PAD Local relief (concave, convex, none): NONE Slope (%): 2

Subregion (LRR or MLRA) LRRL Lat: 43.09097°N Long: -77.40183°W Datum: NAD83

Soil Map Unit Name: MUCK, SHALLOW NW I classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil X, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS : Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	If yes, optional Wetland Site ID: N/A
Wetland Hydrology Present?	Yes _____	No X	

Remarks: (Explain alternative procedures here or in a separate report.)

- UPLAND SUCCESSIONAL FIELD
- OLD FILL PAD

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): N/A
Water Table Present?	Yes _____	No X	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): N/A

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project Code: W8J23

VEGETATION : Use scientific names of plants.

Sampling Point: D1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		

Herb Stratum (Plot size: 5')			
1. Poa pratensis	65	Y	FACW
2. Trifolium repens	15	N	FACW
3. Lotus corniculatus	10	N	FACU
4. Centaurea stoebe	10	N	UPL
5. Taraxacum officinale	5	N	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	105 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	95	x 4 =	380
UPL species	10	x 5 =	50
Column Totals:	105 (A)		430 (B)

Prevalence Index = B/A = 4.10

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is < 3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Successional old field

Hydrophytic Vegetation Present? Yes ___ No V

Remarks: (Include photo numbers here or on a separate sheet.)

Photo # P1 **Direction of Photo** S

Project Code: W8J23

SOIL

Sampling Point: D1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR4/1	100					gr sil	FILL MATERIAL
5-20	10YR5/4	100					gr	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NONE

Depth (inches): N/A

Hydric Soil Present? Yes ____ No X

Remarks:

Project Code: W8J23

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Lyndon Road Landfill – 80 Lyndon Road Town/County: Perinton/Monroe County Sampling Date: October 17, 2023

Applicant/Owner: Inventum Engineering State: New York Sampling Point: DZ

Investigator(s): Scott Livingstone & Alex Molik Section, Township, Range: 154.03-1-26

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR or MLRA) LRRL Lat: 43.089975° N Long: -77.410099° W Datum: NAD83

Soil Map Unit Name: CANANDAIGUA SILT LOAM NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS : Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	If yes, optional Wetland Site ID: W1

Remarks: (Explain alternative procedures here or in a separate report.)

- W1-1 -> W1-73 (OPEN)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ Marl Deposits (B15)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Drainage Patterns (B10)
- __ Moss Trim Lines (B16)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- __ Geomorphic Position (D2)
- __ Shallow Aquitard (D3)
- __ Microtopographic Relief (D4)
- __ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): N/A
Water Table Present?	Yes _____	No X	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): N/A

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project Code: W8J23

VEGETATION : Use scientific names of plants.

Sampling Point: D2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. Fraxinus pennsylvanica	25	Y	FACW
2. Rhamnus cathartica	20	Y	FAC
3.			
4.			
5.			
6.			
7.			
	45 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Phragmites australis	55	Y	FACW
2. Fraxinus pennsylvanica	10	N	FACW
3. Rhamnus cathartica	10	N	FAC
4. Equisetum arvense	5	N	FAC
5. Symphyotrichum lateriflorum	5	N	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. Vitis aestivalis	10	Y	FACU
2.			
3.			
4.			
	10 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is < 3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Scrub-shrub swamp

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Photo # _____ **Direction of Photo** _____

Project Code: W8J23

SOIL

Sampling Point: D2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	97	10YR 5/8	3	C	M	grl	
12-20	10YR 4/1	95	10YR 5/8	5	C	M	grl	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NONE

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

Project Code: W8J23

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Lyndon Road Landfill – 80 Lyndon Road Town/County: Perinton/Monroe County Sampling Date: October 17, 2023

Applicant/Owner: Inventum Engineering State: New York Sampling Point: D3

Investigator(s): Scott Livingstone & Alex Molik Section, Township, Range: 154.03-1-26

Landform (hillslope, terrace, etc.): FILL PAD Local relief (concave, convex, none): CONVEX Slope (%): 2

Subregion (LRR or MLRA) LRRL Lat: 43.08976°N Long: -77.40104°W Datum: NAD83

Soil Map Unit Name: CANANDAIGUA SILT LOAM NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS : Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: N/A

Remarks: (Explain alternative procedures here or in a separate report.)

UPLAND SCRUB/SHRUB COMMUNITY / OLD FILL AREA

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): N/A

Water Table Present? Yes ____ No X Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): N/A

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project Code: W8J23

VEGETATION : Use scientific names of plants.

Sampling Point: D3

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. Rhamnus Cathartica	25	Y	FAC
2. Fraxinus americana	15	Y	FACU
3. Lonicera tatarica	5	N	FACU
4.			
5.			
6.			
7.			
	45 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Rhamnus Cathartica	20	Y	FAC
2. Artemesia vulgaris	15	Y	UPL
3. Fragaria Virginiana	10	N	FACU
4. Solidago canadensis	10	N	FACU
5. Fraxinus americana	5	N	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. Vitis aestivalis	15	Y	FACU
2.			
3.			
4.			
	15 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	60	x 4 =	240
UPL species	15	x 5 =	75
Column Totals:	120 (A)		450 (B)

Prevalence Index = B/A = 3.75

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is < 3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Successional shrubland

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Photo # P3 **Direction of Photo** W

Project Code: W8J23

SOIL

Sampling Point: D3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR4/1	100					Vgrl	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: HARD Fill

Depth (inches): 9"

Hydric Soil Present? Yes ____ No X

Remarks:

Project Code: W8J23

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Lyndon Road Landfill – 80 Lyndon Road Town/County: Perinton/Monroe County Sampling Date: October 17, 2023

Applicant/Owner: Inventum Engineering State: New York Sampling Point: D4

Investigator(s): Scott Livingstone & Alex Molik Section, Township, Range: 154.03-1-26

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): CONCAVE Slope (%): C1

Subregion (LRR or MLRA) LRRL Lat: 43.05124°N Long: -77.40130°W Datum: NAD83

Soil Map Unit Name: MUCK, SHALLOW NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS : Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: W1

Remarks: (Explain alternative procedures here or in a separate report.)

• W1-1 → W1-73 (OPEN)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season W ater Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): N/A
Water Table Present?	Yes ____	No X	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): N/A

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project Code: W8J23

VEGETATION : Use scientific names of plants.

Sampling Point: D4

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus deltoides	10	Y	FAC
2. Salix nigra	5	Y	OBL
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Fraxinus pennsylvanica	20	Y	FACW
2. Rhamnus cathartica	5	Y	FAC
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Sparganium americanum	60	Y	OBL
2. Carex tribuloides	15	N	OBL
3. Solidago rugosa	10	N	FAC
4. Eutrochium maculatum	10	N	OBL
5. Symphyotrichum lateriflorum	5	N	FAC
6. Phragmites australis	5	N	FACW
7. Toxicodendron radicans	3	N	FAC
8.			
9.			
10.			
11.			
12.			
	108	= Total Cover	

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is < 3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Scrub-Shrub Swamp

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Photo # P5 **Direction of Photo** W

Project Code: W8J23

SOIL

Sampling Point: D4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 4/1	85	10YR 5/8	15	C	M	I	
13-20	10YR 5/1	80	10YR 5/8	20	C	M	I	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NONE

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

Project Code: W8J23

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Lyndon Road Landfill – 80 Lyndon Road Town/County: Perinton/Monroe County Sampling Date: October 17, 2023

Applicant/Owner: Inventum Engineering State: New York Sampling Point: DS

Investigator(s): Scott Livingstone & Alex Molik Section, Township, Range: 154.03-1-26

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): CONVEX Slope (%): 15

Subregion (LRR or MLRA) LRRL Lat: 43.09125°N Long: -77.410123°W Datum: NAD83

Soil Map Unit Name: MUCK, SHALLOW NW I classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS : Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: N/A

Remarks: (Explain alternative procedures here or in a separate report.)

UPLAND WOODS

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): N/A
Water Table Present?	Yes ____	No X	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): N/A

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project Code: W8J23

VEGETATION : Use scientific names of plants.

Sampling Point: D5

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus deltoides	15	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. Fraxinus americanum	20	Y	FACW
2. Rhamnus cathartica	20	Y	FAC
3. Lonicera tatarica	5	N	FACU
4.			
5.			
6.			
7.			
	45 = Total Cover		

Herb Stratum (Plot size: 5')			
1. Toxicodendron radicans	30	Y	FAC
2. Fraxinus americanum	10	Y	FACW
3. Echinochloa crus-galli	5	N	FAC
4. Fragaria Virginiana	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	50 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. Vitis riparia	15	Y	FACW
2.			
3.			
4.			
	15 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	70	x 3 =	210
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	125 (A)		430 (B)

Prevalence Index = B/A = 3.44

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is < 3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Successional Shrubland

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Photo # 96 **Direction of Photo** E

Project Code: W8J23

SOIL

Sampling Point: D5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR5/2	100					l	
8-20	10YR5/4	85	10YR5/1	15	C	M	l	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NONE

Depth (inches): N/A

Hydric Soil Present? Yes ____ No X

Remarks:

Project Code: W8J23

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Lyndon Road Landfill – 80 Lyndon Road Town/County: Perinton/Monroe County Sampling Date: October 17, 2023

Applicant/Owner: Inventum Engineering State: New York Sampling Point: D6

Investigator(s): Scott Livingstone & Alex Molik Section, Township, Range: 154.03-1-26

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): CONVEX Slope (%): 15

Subregion (LRR or MLRA) LRRL Lat: 43.089899°N Long: -77.600110°W Datum: NAD83

Soil Map Unit Name: MUCK, SHALLOW NW I classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS : Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: N/A

Remarks: (Explain alternative procedures here or in a separate report.)

UPLAND WOODS/OLD LANDFILL

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project Code: W8J23

VEGETATION : Use scientific names of plants.

Sampling Point: D6

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus deltoides	35	Y	FAC
2. Platanus occidentalis	15	Y	FACW
3.			
4.			
5.			
6.			
7.			
	50	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Fraxinus americana	20	Y	FACW
2. Rhamnus cathartica	5	N	FAC
3. Lonicera tatarica	5	N	FACU
4.			
5.			
6.			
7.			
	30	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Fraxinus americana	25	Y	FACW
2. Toxicodendron radicans	20	Y	FAC
3. Agcratina altissima	15	Y	FACU
4. Rubus allegheniensis	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	65	= Total Cover	

Woody Vine Stratum (Plot size: 30')			
1. Toxicodendron radicans	15	Y	FAC
2.			
3.			
4.			
	15	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 28.6 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	75	x 3 =	225
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	160 (A)		535 (B)

Prevalence Index = B/A = 3.34

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is < 3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Northern Hardwood

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (include photo numbers here or on a separate sheet.)

Photo # P7 **Direction of Photo** N

Project Code: W8J23

SOIL

Sampling Point: D6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/2	100					l	Fill
6-20	10YR 4/2	70					grl	Mixed Fill
	10YR 6/3	30						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NONE

Depth (inches): N/A

Hydric Soil Present? Yes _____ No X

Remarks:

Project Code: W8J23

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Lyndon Road Landfill – 80 Lyndon Road Town/County: Perinton/Monroe County Sampling Date: October 17, 2023

Applicant/Owner: Inventum Engineering State: New York Sampling Point: D7

Investigator(s): Scott Livingstone & Alex Molik Section, Township, Range: 154.03-1-26

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): CONCAVE Slope (%): 0

Subregion (LRR or MLRA) LRRL Lat: 43.08979°N Long: -77.39867°W Datum: NAD83

Soil Map Unit Name: MUCK, SHALLOW NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS : Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	If yes, optional Wetland Site ID: W1

Remarks: (Explain alternative procedures here or in a separate report.)

- W1-1 → W1-73 (OPEN)
- DEEP EMERGENT MARSH

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ Marl Deposits (B15)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Drainage Patterns (B10)
- __ Moss Trim Lines (B16)
- __ Dry-Season W ater Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- __ Geomorphic Position (D2)
- __ Shallow Aquitard (D3)
- __ Microtopographic Relief (D4)
- __ FAC-Neutral Test (D5)

Field Observations:

X Surface Water Present? Yes _____ No X Depth (inches): N/A

Water Table Present? Yes X No _____ Depth (inches): Surface

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): Surface

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

X 12" INUNDATION TO EAST

Project Code: W8J23

VEGETATION : Use scientific names of plants. Sampling Point: D7

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Platanus occidentalis	15	Y	FACW
2. Salix nigra	10	Y	OBL
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Fraxinus pennsylvanica	15	Y	FACW
2. Rosa multiflora	10	Y	FACU
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Saururus cernuus	30	Y	OBL
2. Lysimachia nummularia	20	Y	FACW
3. Phragmites australis	10	N	FACW
4. Pilea pumila	10	N	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	70	= Total Cover	

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is < 3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Deep Emergent Marsh

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Photo # P8 **Direction of Photo** E

Project Code: W8J23

SOIL

Sampling Point: D7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR4/1	95	10YR5/8	5	C	M	1	
6-20	10YR5/1	90	10YR5/8	10	C	M	1	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NONE

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

Project Code: W8J23

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Lyndon Road Landfill – 80 Lyndon Road Town/County: Perinton/Monroe County Sampling Date: October 17, 2023

Applicant/Owner: Inventum Engineering State: New York Sampling Point: D8

Investigator(s): Scott Livingstone & Alex Molik Section, Township, Range: 154.03-1-26

Landform (hillslope, terrace, etc.): LANDFILL Local relief (concave, convex, none): CONVEX Slope (%): 7

Subregion (LRR or MLRA) LRRL Lat: 43.08977°N Long: -77.39864°W Datum: NAD83

Soil Map Unit Name: MUCK, SHALLOW NW I classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS : Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: N/A

Remarks: (Explain alternative procedures here or in a separate report.)

UPLAND WOODS/FORMER LANDFILL

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season W ater Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): N/A
Water Table Present?	Yes ____	No X	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): N/A

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project Code: W8J23

VEGETATION : Use scientific names of plants.

Sampling Point: D8

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus deltoides	10	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. Rhamnus cathartica	25	Y	FAC
2. Rosa multiflora	25	Y	FACU
3. Fraxinus americanum	10	N	FACW
4.			
5.			
6.			
7.			
	60 = Total Cover		

Herb Stratum (Plot size: 5')			
1. Ageratina altissima	30	Y	FACU
2. Vincetoxicum nigrum	20	Y	NI
3. Solidago canadensis	15	N	FACU
4. Fraxinus americanum	10	N	FACW
5. Fragaria virginiana	10	N	FACU
6. Rhamnus cathartica	5	N	FAC
7.			
8.			
9.			
10.			
11.			
12.			
	90 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. Vitis aestivalis	10	Y	FACU
2.			
3.			
4.			
	10 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	110	x 4 =	440
UPL species	0	x 5 =	0
Column Totals:	150 (A)		560 (B)

Prevalence Index = B/A = 3.73

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is < 3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Successional Shrubland

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Photo # P9 **Direction of Photo** W

Project Code: W8J23

SOIL

Sampling Point: DS

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	7.5YR 4/4	100					gr l	Fill
4-20	7.5YR 5/4	100					gr l	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NONE

Depth (inches): N/A

Hydric Soil Present? Yes ____ No X

Remarks:

Project Code: W8J23

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Lyndon Road Landfill – 80 Lyndon Road Town/County: Perinton/Monroe County Sampling Date: October 17, 2023

Applicant/Owner: Inventum Engineering State: New York Sampling Point: D9

Investigator(s): Scott Livingstone & Alex Molik Section, Township, Range: 154.03-1-26

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): CONCAVE Slope (%): 0

Subregion (LRR or MLRA) LRRL Lat: 43.091810°N Long: -77.398620°W Datum: NAD83

Soil Map Unit Name: MUCK, SHALLOW NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS : Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	If yes, optional Wetland Site ID: W1

Remarks: (Explain alternative procedures here or in a separate report.)

- W1-1 -> W1-73 (OPEN)
- DEEP EMERGENT MARSH

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season W ater Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No _____	Depth (inches): 3-12+"
Water Table Present?	Yes X	No _____	Depth (inches): INUNDATED
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches): Inundated

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project Code: W8J23

VEGETATION : Use scientific names of plants.

Sampling Point: D9

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix nigra	15	Y	OBL
2. Acer negundo	10	Y	FAC
3.			
4.			
5.			
6.			
7.			
	25 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. Fraxinus pennsylvanica	10	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10 = Total Cover		

Herb Stratum (Plot size: 5')			
1. Sparganium americanum	25	Y	OBL
2. Lysimachia nummularia	20	Y	FACW
3. Pilea pumila	10	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	55 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. Vitis aestivalis	10	Y	FACU
2.			
3.			
4.			
	10 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is < 3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Deep Emergent Marsh

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Photo # P10 **Direction of Photo** E

Project Code: W8J23

SOIL

Sampling Point: D9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR2/1	100					MUCK	
4-20	10YR6/1	93	10YR5/8	7	C	M	L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NONE

Depth (inches): N/A

Hydric Soil Present? Yes X No ___

Remarks:

Project Code: W8J23

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Lyndon Road Landfill – 80 Lyndon Road Town/County: Perinton/Monroe County Sampling Date: October 17, 2023

Applicant/Owner: Inventum Engineering State: New York Sampling Point: D10

Investigator(s): Scott Livingstone & Alex Molik Section, Township, Range: 154.03-1-26

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): CONVEX Slope (%): 10

Subregion (LRR or MLRA) LRRL Lat: 43.09180°N Long: -77.39866°W Datum: NAD83

Soil Map Unit Name: CANANDAIGUA SILT LOAM NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil X, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS : Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: N/A

Remarks: (Explain alternative procedures here or in a separate report.)

UPLAND WOODS / FORMER LANDFILL

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season W ater Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): N/A
Water Table Present?	Yes ____	No X	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): N/A

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project Code: W8J23

VEGETATION : Use scientific names of plants.

Sampling Point: D10

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. Rosa multiflora	30	Y	FACU
2. Lonicera tatarica	25	Y	FACU
3. Fraxinus americanum	10	N	FACU
4.			
5.			
6.			
7.			
	65 = Total Cover		

Herb Stratum (Plot size: 5')			
1. Ageratina altissima	25	Y	FACU
2. Toxicodendron radicans	10	N	FAC
3. Fragaria virginiana	10	N	FACU
4. Vincetoxicum nigrum	5	N	NI
5. Fraxinus americanum	5	N	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	65 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. Vitis aestivalis	10	Y	FACU
2.			
3.			
4.			
	10 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	115	x 4 =	460
UPL species	0	x 5 =	0
Column Totals:	125 (A)		490 (B)

Prevalence Index = B/A = 3.92

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is < 3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Successional Shrubland

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Photo # P11 **Direction of Photo** W

Project Code: W8J23

SOIL

Sampling Point: D10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR4/2	100					Sil	F,11
5-20	10YR6/2	100					Sil	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L, M**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NONE

Depth (inches): N/A

Hydric Soil Present? Yes _____ No X

Remarks:

Project Code: W8J23

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Lyndon Road Landfill – 80 Lyndon Road Town/County: Perinton/Monroe County Sampling Date: October 17, 2023

Applicant/Owner: Inventum Engineering State: New York Sampling Point: D11

Investigator(s): Scott Livingstone & Alex Molik Section, Township, Range: 154.03-1-26

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): CONVEX Slope (%): 10

Subregion (LRR or MLRA) LRRL Lat: 43.09228°N Long: -77.39964°W Datum: NAD83

Soil Map Unit Name: MUCK, SHALLOW NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil X, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS : Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	If yes, optional Wetland Site ID: N/A

Remarks: (Explain alternative procedures here or in a separate report.)

UPLAND WOODS / LAND FILL

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ Marl Deposits (B15)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Drainage Patterns (B10)
- __ Moss Trim Lines (B16)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- __ Geomorphic Position (D2)
- __ Shallow Aquitard (D3)
- __ Microtopographic Relief (D4)
- __ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): N/A
Water Table Present?	Yes _____	No X	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): N/A

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project Code: W8J23

VEGETATION : Use scientific names of plants.

Sampling Point: D11

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus deltoides	10	Y	FAC
2. Robinia pseudoacacia	10	Y	FACU
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Rhamnus cathartica	20	Y	FAC
2. Juglans nigra	10	Y	FACU
3. Rosa multiflora	10	Y	FACU
4. Lonicera tatarica	5	N	FACU
5.			
6.			
7.			
	45	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Ageratina altissima	35	Y	FACU
2. Rhamnus cathartica	15	Y	FAC
3. Fragaria virginiana	10	N	FACU
4. Rosa multiflora	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	65	= Total Cover	

Woody Vine Stratum (Plot size: 30')			
1. Vitis cestivalis	15	Y	FACU
2.			
3.			
4.			
	15	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 37.5 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	145 (A)		535 (B)

Prevalence Index = B/A = 3.69

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is < 3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Successional shrubland

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Photo # P12 **Direction of Photo** SW

Project Code: W8J23

SOIL Sampling Point: D11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/1	100					l gr	Fill
4-20	10YR 5/4	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NONE

Depth (inches): N/A

Hydric Soil Present? Yes ____ No X

Remarks:

Project Code: W8J23

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Lyndon Road Landfill – 80 Lyndon Road Town/County: Perinton/Monroe County Sampling Date: October 17, 2023

Applicant/Owner: Inventum Engineering State: New York Sampling Point: DIZ

Investigator(s): Scott Livingstone & Alex Molik Section, Township, Range: 154.03-1-26

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): CONVEX Slope (%): 10

Subregion (LRR or MLRA) LRRL Lat: 43.091026°N Long: -77.59993°W Datum: NAD83

Soil Map Unit Name: CANANDAIGUA SILT LOAM NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS : Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: N/A

Remarks: (Explain alternative procedures here or in a separate report.)

UPLAND WOODS/LANDFILL

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): N/A
Water Table Present?	Yes ____	No X	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): N/A

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project Code: W8J23

VEGETATION : Use scientific names of plants.

Sampling Point: D12

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus deltoides	5	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1. Rhamnus Cathartica	30	Y	FAC
2. Juglans nigra	15	Y	FACU
3. Rosa multiflora	10	N	FACU
4.			
5.			
6.			
7.			
	55	= Total Cover	

Herb Stratum (Plot size: 5')			
1. Artemesia vulgaris	45	Y	UPL
2. Ageratina altissima	20	Y	FACU
3. Rhamnus cathartica	10	N	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	75	= Total Cover	

Woody Vine Stratum (Plot size: 30')			
1. Vitis aestivalis	10	Y	FACU
2.			
3.			
4.			
	10	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	55	x 4 =	220
UPL species	45	x 5 =	225
Column Totals:	145 (A)		580 (B)

Prevalence Index = B/A = 4.0

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is < 3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Successional Shrubland

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Photo # P13 **Direction of Photo** E

Project Code: W8J23

SOIL Sampling Point: D12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/4	100					gr	Fill

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: HARD Fill

Depth (inches): 6"

Hydric Soil Present? Yes ____ No X

Remarks:

Project Code: W8J23

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Lyndon Road Landfill – 80 Lyndon Road Town/County: Perinton/Monroe County Sampling Date: October 17, 2023

Applicant/Owner: Inventum Engineering State: New York Sampling Point: D13

Investigator(s): Scott Livingstone & Alex Molik Section, Township, Range: 154.03-1-26

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): CONVEX Slope (%): 10

Subregion (LRR or MLRA) LRRL Lat: 43.090358° N Long: -77.400060° W Datum: NAD83

Soil Map Unit Name: MUCK, SHALLOW NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil X, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS : Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	If yes, optional Wetland Site ID: N/A
Wetland Hydrology Present?	Yes _____	No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

UPLAND WOODS/OLD LANDFILL

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): N/A
Water Table Present?	Yes _____	No X	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): N/A

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project Code: W8J23

VEGETATION : Use scientific names of plants. Sampling Point: D13

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus deltoides	10	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. Rhamnus cathartica	40	Y	FAC
2. Juglans nigra	10	N	FACU
3. Fraxinus americanum	10	N	FACU
4.			
5.			
6.			
7.			
	60 = Total Cover		

Herb Stratum (Plot size: 5')			
1. Artemesia vulgaris	45	Y	UPL
2. Ageratina altissima	15	N	FACU
3. Vincetoxicum nigrum	15	N	NI
4. Fragaria virginiana	10	N	FACU
5. Rhamnus cathartica	5	N	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	55	x 3 = 165
FACU species	50	x 4 = 200
UPL species	0	x 5 = 0
Column Totals:	105 (A)	365 (B)

Prevalence Index = B/A = 3.48

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is < 3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Community Type: Successional shrubland

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Photo # P14 **Direction of Photo** SE

Project Code: W8J23

SOIL Sampling Point: D13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR4/2	100						Fill
6-9	10YR5/6	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L, M)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: HARD Fill

Depth (inches): 9+

Hydric Soil Present? Yes ____ No X

Remarks:

LYNDON ROAD LANDFILL

APPENDIX C - SITE PHOTOGRAPHS

Photo 1: Facing south. Depicts the successional old field community at data point D1. 10/17/23

Photo 2: Facing east. Depicts the scrub-shrub swamp community of W1 data point D2. 10/17/23

Photo 3: Facing west. Depicts the successional shrubland community at data point D3. 10/17/23

Photo 4: Facing southeast. Depicts Stream 1. 10/17/23

Photo 5: Facing west. Depicts the scrub-shrub swamp community of W1 at data point D4. 10/17/23

Photo 6: Facing east. Depicts the successional shrubland community of data point D5. 10/17/23

Photo 7: Facing north. Depicts the northern hardwood community at data point D6. 10/17/23

Photo 8: Facing east. Depicts the deep emergent marsh community of W1 at data point D7. 10/17/23

Photo 9: Facing west. Depicts the successional shrubland community at data point D8. 10/17/23

Photo 10: Facing east. Depicts the deep emergent marsh community of W1 at data point D9. 10/17/23

Photo 11: Facing west. Depicts successional shrubland community at data point D10. 10/17/23

Photo 12: Facing southwest. Depicts the successional shrubland community at data point D11. 10/17/23

Photo 13: Facing east. Depicts the successional shrubland community at data point D12. 10/17/23

Photo 14: Facing southeast. Depicts the successional shrubland community at data point D13. 10/17/23

LYNDON ROAD LANDFILL

APPENDIX D - REFERENCES

INFORMATIONAL REFERENCES
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LYNDON ROAD LANDFILL

APPENDIX E – PROJECT CONTACT DETAILS

Wetland Personnel:

Soils and Hydrology Sampling
Scott Livingstone, Senior Soil Scientist
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slivingstone@earthdimensions.com

Vegetation Sampling
Alex Molik, Ecologist
Earth Dimensions, Inc.
1091 Jamison Road
Elma, New York 14059
(716) 655-1717
alex@earthdimensions.com

Report Preparation
Alex Molik, Ecologist
Earth Dimensions, Inc.
1091 Jamison Road
Elma, New York 14059
(716) 655-1717
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Client Contact:

TODD WALDROP
INVENTUM ENGINEERING
441 CARLISLE DRIVE
HERNDON, VIRGINIA 20170
TODD.WALDROP@INVENTUMENG.COM
(571) 217-3627

Landowner Contact:

80 Lyndon Road LLC
Mailing address (Street number and name)
Mailing Address (City, State, Zip)
Phone #
Email

.

Wetland Determination – NYSDEC

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish and Wildlife | Region 8 Bureau of Ecosystem Health
6274 East Avon-Lima Road | Avon, NY 14414-9516
Phone: (585) 226-2466 | Fax: (585) 226-2830

Freshwater Wetlands Determination

NAME	WETLAND ID#	DATE INVESTIGATION CONDUCTED
Alex Molik	**PR-1**	**11/30/2023**

ORGANIZATION	WETLAND LOCATION
Earth Dimensions, Inc.	TOWN: **Perinton** COUNTY: **Monroe**

STREET ADDRESS
1091 Jamison Rd

CITY - VILLAGE - TOWN	STATE	ZIP CODE
Elma	**NY**	**14059**

RE:

Lyndon Road Landfill

This letter is in response to your inquiry regarding the applicability of Article 24 (Freshwater Wetland Act) regulations to the parcel of land in question. An investigation was conducted and, based on this determination, the Department of Environmental Conservation finds that the statements checked below apply to the subject property:

☒ A regulated Freshwater Wetland is located on or within 100 feet of this property, and regulated activities in the wetland or within the 100-foot adjacent area are subject to permit requirements.

☐ No regulated Freshwater Wetland is currently mapped on or within 100 feet of this property. Therefore, no New York Environmental Conservation Law Article 24 Freshwater Wetland permit is required at this time.

☐ The project, as described, is within 100 feet of a regulated wetland, and a wetland permit will be required prior to the commencement of the proposed project. Information about Freshwater Wetlands and regulated activities can be found on the Department's Freshwater Wetlands web page: http://www.dec.ny.gov/lands/4937.html

☐ The property contains a regulated wetland and/or is within 100 feet of a wetland boundary, but the described project is located outside the regulated area and will not require a wetland permit.

☐ Please contact the **U.S. Army Corps of Engineers (Buffalo office) at 716-879-4330** regarding any federally protected wetlands in the vicinity. http://www.lrb.usace.army.mil/Missions/Regulatory.aspx

☒ The boundary of the regulated wetland located on this property has been precisely delineated as follows:

The delineation map attached here accurately represents the limits of State wetland PR-1 on the subject property, but **does not depict the regulatory 100' adjacent area associated with the wetland**. Any work within the wetland or 100' adjacent area is subject to freshwater wetland regulations. The valid map is titled "Lyndon Road Landfill", created by Earth Dimensions, Inc. on October 19, 2023 with no revisions dates, and has the EDI project code: W8J23

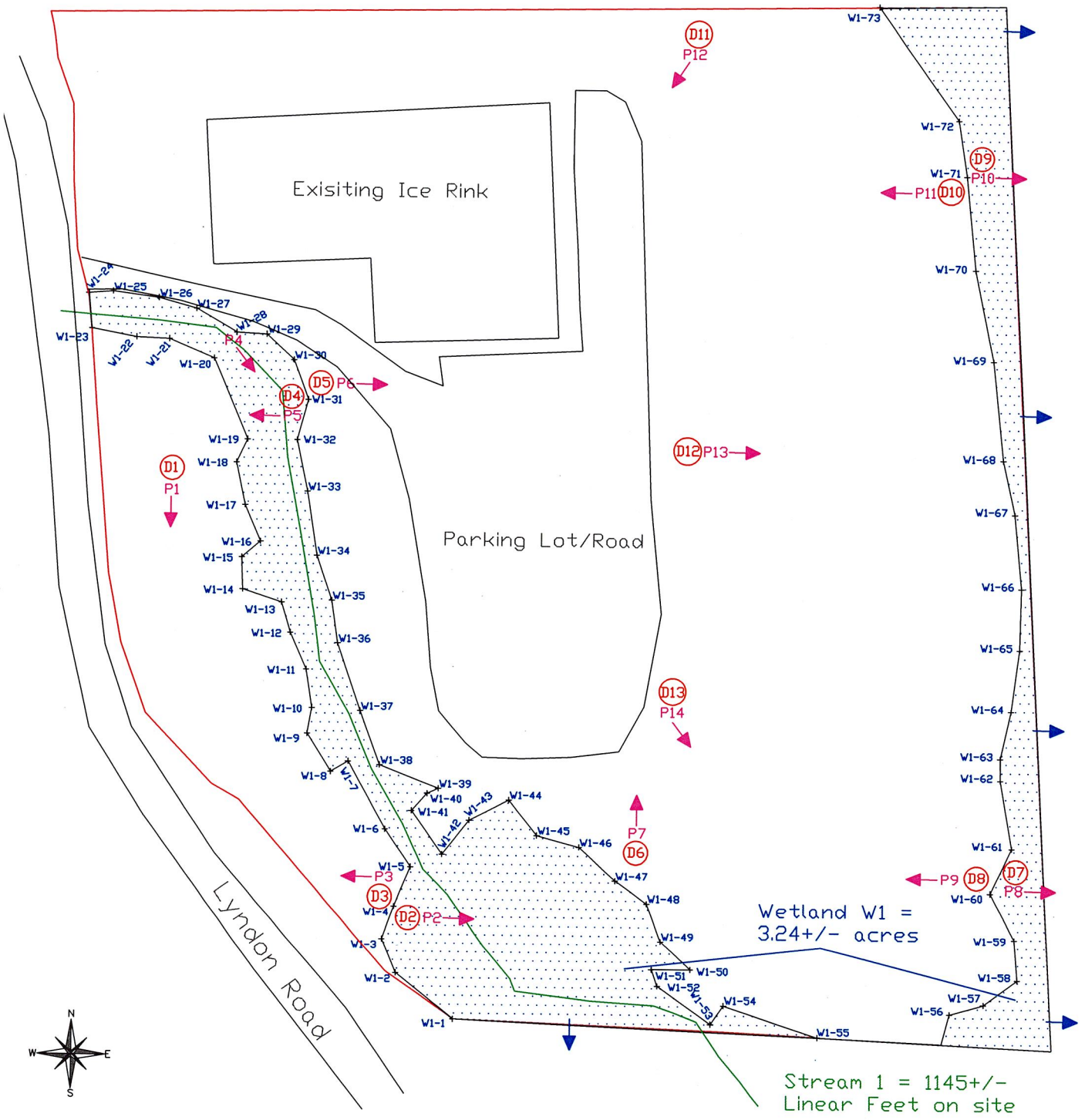
SIGNED: _____ TITLE: Biologist

Department wetland field delineations remain in effect for a period of five years, after which they are subject to revision at the Department's discretion, due to changing site conditions. Measurements of the 100-foot adjacent area are done *horizontally* upland from the wetland boundary, not along the ground surface. Identification of the adjacent-area boundary, if done, is the responsibility of the landowner or project sponsor.

Figure 6 - Wetland Delineation Map

Town of Perinton Monroe County, New York

EARTH DIMENSIONS, INC.
1091 Jamison Road | Elma New York 14059
(716) 655-1717 | Fax (716) 655-2915



Lyndon Road Landfill

LEGEND

- Limits of Investigation
- Streams
- W1-1 Wetland Boundary Flag
- Wetland Area
- P1 Photo Location
- D1 Data Point Location

Scale:	0 100' 200'
Map Date: October 19, 2023/AMM for EDI Revised:	
Base Map Provided By: GPSMap 62s	
File Name: Delineation map.dwg	
EDI Project Code: W8123	

Preliminary Jurisdictional Determination – USACE

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, BUFFALO DISTRICT
478 MAIN STREET
BUFFALO, NEW YORK 14202-3278

June 10, 2024

Regulatory Branch

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application No. LRB-2023-01238

Inventum Engineering
Attn: Todd Waldrop
441 Carlisle Drive
Hendon, Virginia 20170
Email: todd.waldrop@inventumeng.com

Dear Mr. Waldrop:

I have reviewed the items submitted by Earth Dimensions, Inc. on your behalf for your request for a preliminary Jurisdictional Determination (JD) of an approximately 24.4-acre review area, located at 80 Lyndon Road, Town of Perinton, Monroe County, New York; as identified on Sheet 1 of 4 (Latitude: 43.09101 N, Longitude: -77.40027 W).

I have evaluated your submitted aquatic resource delineation map (sheets 2-4 of 4) and have determined that the aquatic resource boundaries shown on the map accurately represent on-site conditions. Please note that this is a preliminary JD. Preliminary JDs are non-binding written indications that there may be waters of the United States (WOUS) on your parcel and approximate locations of those waters. Preliminary JDs are advisory in nature and may not be appealed.

Pursuant to Regulatory Guidance Letter 16-01, any permit application made in reliance on this preliminary JD will be evaluated as though all aquatic resources on the site are regulated by the Corps. Further, all aquatic resources will be used for purposes of assessing the extent of project related impacts and compensatory mitigation. If you require a definitive response regarding Department of the Army jurisdiction for any or all of the aquatic resources identified on the submitted drawings, you may request an approved JD from this office. If an approved JD is requested, please be aware that this is often a lengthy process, and we may require the submittal of additional information.

I have enclosed the preliminary JD Form with this letter. The form and attached table identify the extent of aquatic resources on the site and specific terms and conditions of the preliminary JD. *Please sign and return* a copy of this form to my attention so that I

may complete my evaluation of your file. If you do not respond within 15 days, I will presume concurrence and no additional follow-up is necessary prior to finalizing this action.

In accordance with Regulatory Guidance Letter 05-02, “Preliminary jurisdictional determinations are not definitive determinations of areas within regulatory jurisdiction and do not have expirations dates.” However, I strongly recommend that the boundaries of all aquatic resources on the parcel be re-evaluated by a qualified wetland biologist after five years of the date of this letter. This will ensure that any changes are appropriately identified, and you do not inadvertently incur a violation of Federal law while constructing your project or working on your project site.

Lastly, the delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

A copy of this letter has been sent to Earth Dimensions, Inc..

Questions pertaining to this matter should be directed to me at (716) 879-4240, by writing to the following address: U.S. Army Corps of Engineers, 478 Main Street, Buffalo, New York 14202, or by e-mail at: Shaina.R.Souder@usace.army.mil

Sincerely,

Shaina R. Souder
Biologist

Enclosures

U.S. Army Corps of Engineers (USACE)

PRELIMINARY JURISDICTIONAL DETERMINATION (PJD)

For use of this form, see Sec 404 CWA, Sec 10 RHA, Sec 103 MPRSA; the proponent agency is CECW-COR.

Form Approved -
OMB No. 0710-0024
Expires 2024-04-30

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

Principal Purpose The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the review area that may be subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice or FOIA request as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in any resulting jurisdictional determination (JD), which may be made available to the public on the District's website and/or on the Headquarters USACE website.

Disclosure Submission of requested information is voluntary; however, if information is not provided, the request for a JD cannot be evaluated nor can a PJD be issued.

The Agency Disclosure Notice (ADN)

The public reporting burden for this collection of information, 0710-0024, is estimated to average 25 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

SECTION I - BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 2024-06-10

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Earth Dimensions, Inc.
1091 Jamison Road
Elma, New York 14059
On behalf of:
Inventum Engineering
441 Carlisle Drive
Hendon, Virginia 20170

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

USACE Buffalo District (LRB); Inventum Engineering - Lyndon Road Landfill); LRB-2023-01238

D. PROJECT LOCATION AND BACKGROUND INFORMATION:

(*USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES*)

State: New York County/Parish/Borough: Monroe City: Perinton

Center coordinates of site (*lat/long in degree decimal format*): Latitude: 43.09101 ° Longitude: -77.40027 °

Universal Transverse Mercator: 17

Name of nearest waterbody: Thomas Creek

E. REVIEW PERFORMED FOR SITE EVALUATION (*CHECK ALL THAT APPLY*):

☒ Office (*Desk*) Determination. Date: 2024-06-10

☐ Field Determination

Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

	Site Number	Latitude (*decimal degrees*)	Longitude (*decimal degrees*)	Estimated amount of aquatic resource in review area (*acreage and linear feet, if applicable*)	Type of aquatic resource (*i.e., wetland vs. non-wetland waters*)	Geographic authority to which the aquatic resource "may be" subject (*i.e., Section 404 or Section 10/404*)

	Site Number	Latitude (*decimal degrees*)	Longitude (*decimal degrees*)	Estimated amount of aquatic resource in review area (*acreage and linear feet, if applicable*)	Type of aquatic resource (*i.e., wetland vs. non-wetland waters*)	Geographic authority to which the aquatic resource "may be" subject (*i.e., Section 404 or Section 10/404*)
	LRB-2023-01238 Wetland 1	43.08971	-77.40053	3.24-acres	wetland	Section 404
	LRB-2023-01238 Stream 1 (Thomas Creek)	43.09065	-77.40128	1145 linear feet	non-wetland	Section 404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD or no JD whatsoever, which do not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the USACE has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD or reliance on no JD whatsoever; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of USACE permit authorization based on a PJD or no JD whatsoever constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the USACE will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

F. SUPPORTING DATA. Data reviewed for PJD (*check all that apply)*
Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:

Map: "Wetland and Waterbodies Delineation Report for Lyndon Landfill, Town of Perinton, Monroe County, New York," dated October 20, 2023; prepared for Inventum Engineering; prepared by Earth Dimensions, Inc.. Map within the delineation report is dated October 19, 2023.

☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.

☒ Office concurs with data sheets/delineation report.

☐ Office does not concur with data sheets/delineation report.

Rationale:

☐ Data sheets prepared by the USACE:

☐ Corps navigable waters' study:

☒ U.S. Geological Survey Hydrologic Atlas:

☒ USGS NHD data.

☒ USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s). Cite scale & quad name:

USGS topographic Quadrangle Tonawanda East, 7.5 minute series, 2023 - accessed 16APR2024 and as provided in the submitted delineation report.

☐ USDA Natural Resources Conservation Service Soil Survey.

Citation: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx - as provided in the submitted delineation report.

☒ National Wetlands Inventory map(s).

Cite Name: accessed 11APR2024 and as provided in the submitted delineation report.

☒ State/Local Wetland Inventory map(s):

https://gisservices.dec.ny.gov/gis/erm/ - accessed 11APR2024 and as provided in the submitted delineation report.

☐ FEMA/FIRM maps:

https://www.fema.gov/flood maps - as provided in the submitted delineation report.

☐ 100-year Floodplain Elevation is: _____. (National Geodectic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (*Name & Date*): Google Earth aerials dated 2020 and 2021. Connect Explorer - https://explorer.eagleview.com/index.php - Oblique images dated 18-April-2018, 3-April-2021, and 14-April-2022.

or ☒ Other (*Name & Date*): Photographs from the submitted delineation report dated October 17, 2023.

☐ Previous determination(s). File no. and date of response letter:

☐ Other information (*please specify*):

- USGS Streamstats - https://streamstats.usgs.gov/ss/, as provided in the submitted delineation report.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the USACE and should not be relied upon for later jurisdictional determinations.

Name of Regulatory Staff Member Completing PJD	Date	Signature of Regulatory Staff Member Completing PJD
Shaina Souder, USACE (LRB) Regulatory Biologist	2024-06-10	Shaina R Souder
Name of Person Requesting PJD	Date	Signatureof Person Requesting PJD *(REQUIRED, unless obtaining the Signature is Impracticable*

[1] Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

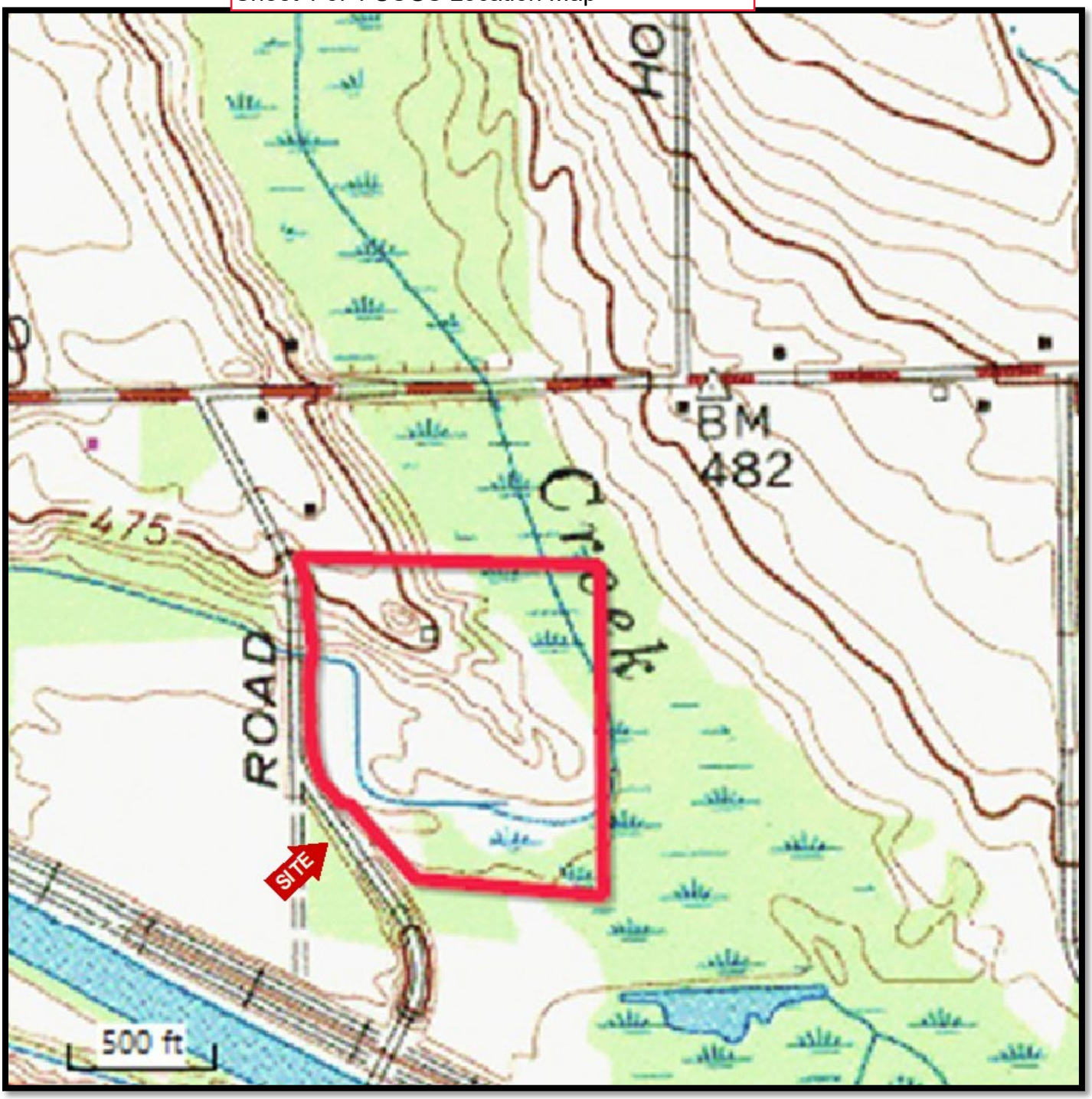


FIGURE 1: USGS 7.5 MINUTE TOPOGRAPHICAL MAP

Fairport Quadrangle / U.S. Geological Survey

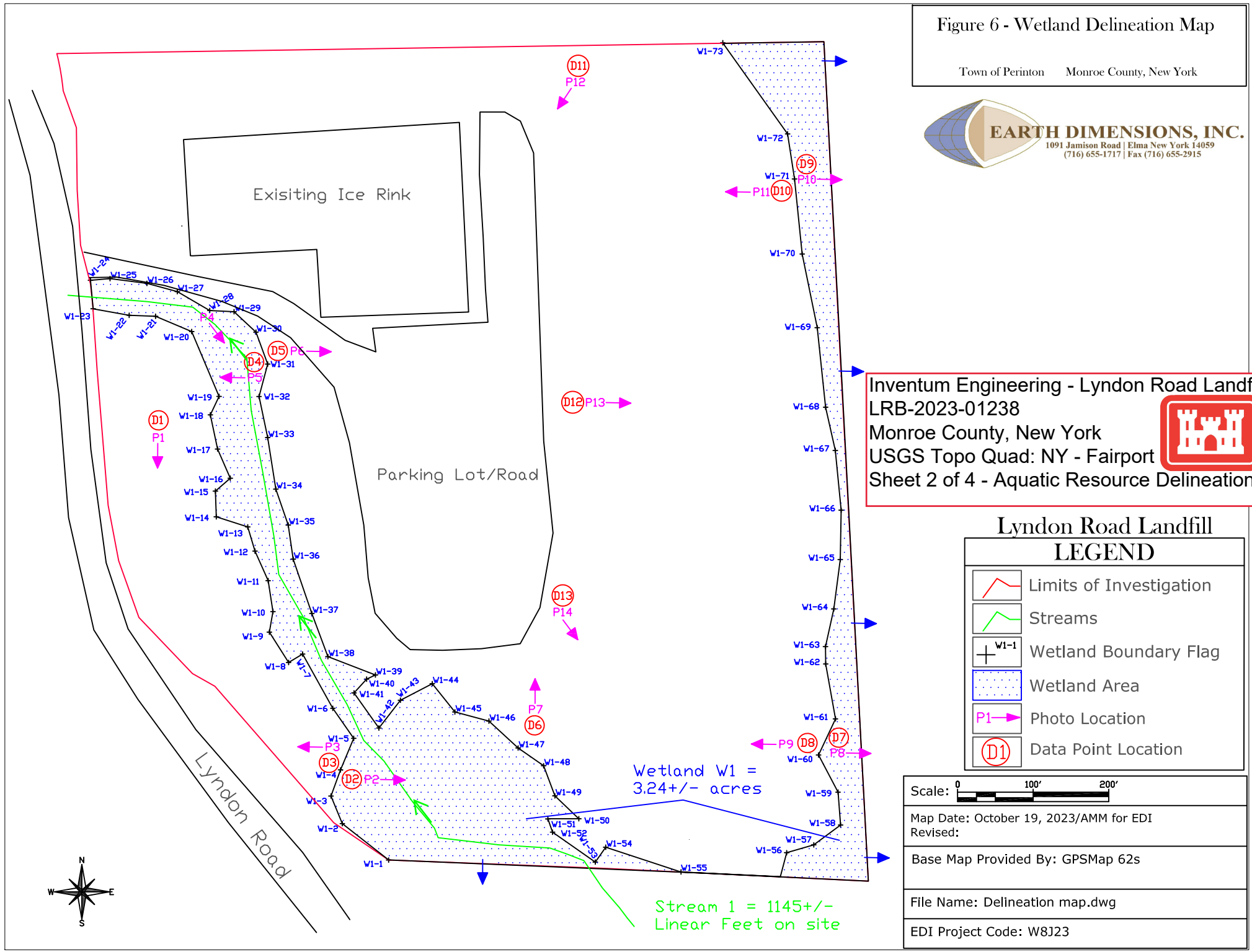
Lyndon Road Landfill

Town of Perinton, Monroe County, New York

Figure 6 - Wetland Delineation Map

Town of Perinton Monroe County, New York

EARTH DIMENSIONS, INC.
1091 Jamison Road | Elma New York 14059
(716) 655-1717 | Fax (716) 655-2915



Inventum Engineering - Lyndon Road Landfill
LRB-2023-01238
Monroe County, New York
USGS Topo Quad: NY - Fairport
Sheet 2 of 4 - Aquatic Resource Delineation Map

Lyndon Road Landfill

LEGEND

- Limits of Investigation
- Streams
- W1-1 Wetland Boundary Flag
- Wetland Area
- P1 Photo Location
- D1 Data Point Location

Scale: 0 100' 200'

Map Date: October 19, 2023/AMM for EDI
Revised:

Base Map Provided By: GPSMap 62s

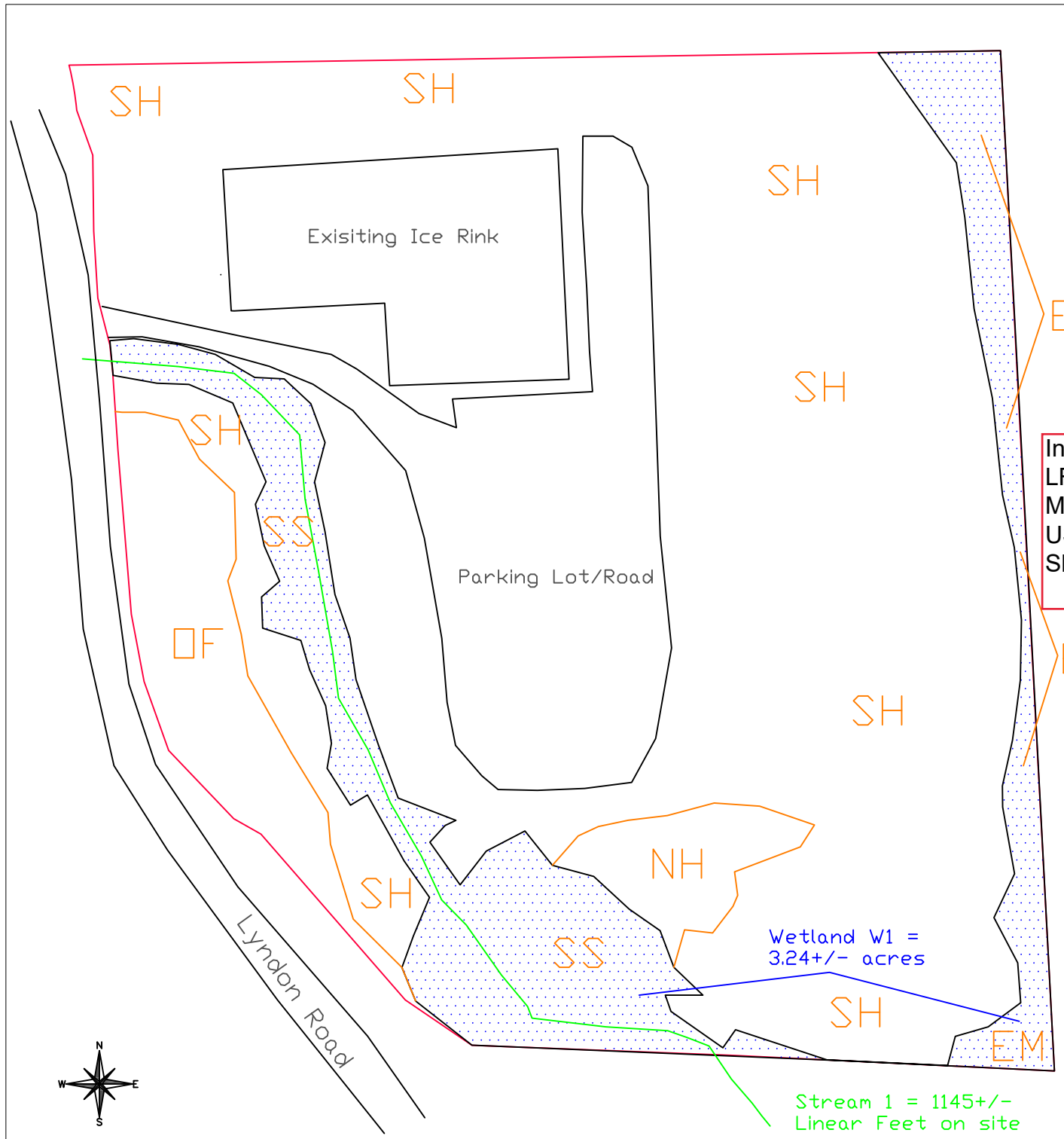
File Name: Delineation map.dwg

EDI Project Code: W8J23

Figure 5 - General Vegetation Map

Town of Perinton Monroe County, New York

EARTH DIMENSIONS, INC.
1091 Jamison Road | Elma New York 14059
(716) 655-1717 | Fax (716) 655-2915



Inventum Engineering - Lyndon Road Landfill
LRB-2023-01238
Monroe County, New York
USGS Topo Quad: NY - Fairport
Sheet 2 of 4 - Aquatic Resource Delineation Map with cover type

	Limits of Investigation
	Community Boundary
	Wetland Area
OF	Successional Old Field
NH	Northern Hardwood
SS	Scrub-shrub
SH	Successional Shrubland
EM	Deep Emergent Marsh

Scale: 0 100' 200'

Map Date: October 19, 2023/AMM for EDI
Revised:

Base Map Provided By: GPSMap 62s

File Name: Delineation map.dwg

EDI Project Code: W8J23

Figure 9: Aerial Photo With Wetlands
GoogleEarth.com (Visited 10/13/23)
Lyndon Road Landfill
Town of Perinton, Monroe County, New York

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Inventum Engineering	File Number: LRB-2023-01238	Date: June 10, 2024
Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL WITHOUT PREJUDICE	C
	PERMIT DENIAL WITH PREJUDICE	D
	APPROVED JURISDICTIONAL DETERMINATION	E
X	PRELIMINARY JURISDICTIONAL DETERMINATION	F

SECTION I

The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/appeals/ or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C. PERMIT DENIAL WITHOUT PREJUDICE: Not appealable

You received a permit denial without prejudice because a required Federal, state, and/or local authorization and/or certification has been denied for activities which also require a Department of the Army permit before final action has been taken on the Army permit application. The permit denial without prejudice is not appealable. There is no prejudice to the right of the applicant to reinstate processing of the Army permit application if subsequent approval is received from the appropriate Federal, state, and/or local agency on a previously denied authorization and/or certification.

D: PERMIT DENIAL WITH PREJUDICE: You may appeal the permit denial
You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information for reconsideration

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety and waive all rights to appeal the approved JD.

- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

- RECONSIDERATION: You may request that the district engineer reconsider the approved JD by submitting new information or data to the district engineer within 60 days of the date of this notice. The district will determine whether the information submitted qualifies as new information or data that justifies reconsideration of the approved JD. A reconsideration request does not initiate the appeal process. You may submit a request for appeal to the division engineer to preserve your appeal rights while the district is determining whether the submitted information qualifies for a reconsideration.

F: PRELIMINARY JURISDICTIONAL DETERMINATION: Not appealable
You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision you may contact:

Shaina Souder
U.S. Army Corps of Engineers
478 Main St,
Buffalo, New York 14202
Phone: (716)879-4240
Email: Shaina.R.Souder@usace.army.mil

If you have questions regarding the appeal process, or to submit your request for appeal, you may contact:

Katherine McCafferty
Regulatory Appeals Officer
US Army Corps of Engineers
Great Lakes and Ohio River Division
550 Main Street, Room 10780
Cincinnati, Ohio 45202-3222
Phone: 513-684-2699 Fax: 513-684-2460
e-mail: katherine.a.mccafferty@usace.army.mil

SECTION II – REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. Use additional pages as necessary. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.	Date:
Email address of appellant and/or agent:	Telephone number:

Appendix F – Medical Waste Photograph Log

Medical Waste Photograph Log
80 Lyndon Road

Photographs were collected during the 2023 NYSDEC Investigation during test pitting work complete by Ramboll and the Geotechnical Test Pitting completed by 80 Lyndon Rd., LLC

Photograph No. 1: Observed medical waste in Test Pit #3 (March 03, 2023).
Note: what appears to be, tubing, IV bag, and stained bedding or gauze.

Photograph No. 2: Observed medical waste at Test Pit #3 (March 03, 2023).
Note: what appears to be blue linens/medical waste bag, bedding or gauze material, tubing and IV bag.

Photograph No. 3: Observed medical waste at Test Pit #3 (March 03, 2023).
Note: Observed baby bottles and medical type tubing circled in red.

Photograph No. 4: Observed medical material in vicinity of Test Pit GEO-TP-02 (January 29, 2024).

Photograph No. 5: Observed medical waste in Test Pit GEO-TP-04 (January 29, 2024).
Note: Observed what appears to be several feet of stained gauze or bandage wrappings.