

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

Hampshire Country Club

March 2023

Revised May 2023

Prepared for:

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1 - Introduction

This SWPPP is prepared by Kimley-Horn Engineering and Landscape Architecture of New York, P.C., as a representative to the Owner/Operator, as required by the Village of Mamaroneck Ordinance § 294-7. The Village of Mamaroneck is an MS4 community which requires preparation of a SWPPP for disturbance greater than 1,000 sf. This SWPPP is prepared in compliance with the New York's State Pollutant Discharge Elimination System (SPDES) Permit for Construction Activities (GP-0-20-001) provided all the eligibility provisions of this permit are met:

- Construction activities involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a larger common plan of development or sale that will ultimately disturb one or more acres of land; excluding routine maintenance activity that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
- Construction activities involving soil disturbances of less than one (1) acre where the Department has determined that a SPDES permit is required for stormwater discharges based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to surface waters of the State.
- Construction activities located in the watershed(s) located in Appendix D of the SPDES permit that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

This project does not lie within any watershed identified in Appendix C of the GP-0-20-001 permit. The site runoff may discharge into a surface waterbody identified as a 303(d) segment in Appendix E of GP-0-20-001, specifically the Long Island Sound located south of the project site.

The proposed project is categorized as a Table 1 activity in the GP-0-20-001 permit. The activity is categorized as an environmental enhancement project and as an activity with spoil areas that will be covered with vegetation. Table 1 activities require a SWPPP with soil erosion and sediment control measures only. The proposed limit of disturbance is less than the 1 acre required by the General Permit, however the local MS4 has declared that any disturbances greater than 1,000 square feet require the preparation of a SWPPP which complies with the General Permit requirements. Therefore, this SWPPP shall comply with the requirements of a SWPPP for a Table 1 activity.

This manual provides the following information, in accordance with SWPPP requirements by the SPDES Permit:

- Site Description
- Development Description
- Drainage Characteristics
- Soil Characteristics
- Pollution Prevention Practices
- Erosion and Sediment Control BMPs
- Operations and Maintenance Plans
- SPDES Permit and Fact Sheet
- Inspection Forms, Monitoring and Reporting Requirements
- Contractor Certification Form

Compliance with the NYSDEC SPDES General Permit No GP-0-20-001 includes, but not limiting to, performing the following activities by the owner/operator:

- Owner/Operator shall read and understand the terms of the SPDES Permit No GP-0-20-001. Owner/Operator is responsible for compliance with this permit. A copy of the NYSDEC SPDES Permit is included in APPENDIX 1 - NYSDEC SPDES PERMIT NO. GP-0-20-001 of the SWPPP.
- Prior to the commencement of construction activities, the owner/operator must identify the contractor(s) and subcontractor(s) that will be responsible for implementing the practices in the SWPPP.
- Owner/Operator shall have each contractor(s) and subcontractor(s) sign a certificate statement prior to commencement of construction activity. The certificate statement is included in APPENDIX 2 - CERTIFICATION STATEMENT of the SWPPP. The owner/operator shall attach the signed certificate statement to the copy of the SWPPP that is maintained at the construction site.
- Perform inspections and maintenance as designated in the SWPPP, and as required in GP-0-20-001 as necessary.
- Update plans, as necessary, to document major site changes.
- Update plans to reflect changes in stockpile, erosion control practices and other site areas.
- Document any spills.
- Document off-site sedimentation resulting from this construction.
- Owner/Operator shall retain a copy of the SWPPP at the site. The SWPPP is a dynamic document and must be continually updated and/or revised as necessary by the owner/operator throughout the construction. Updates and/or revisions to the SWPPP or plans will be placed in APPENDIX 8 - AMENDMENT LOG of this report prior to their implementation.

2. Project Information

2.1 - Location

The property of interest is Hampshire Country Club, an 85.7-acre property located at 1025 Cove Road in the Village of Mamaroneck, New York (Tax Map ID 9-42-568) and is bound by residential properties to the north, east, and west, and Hoffman Middle School to the south. The project site is confined to a 0.74-acre portion of the parcel. Figure 1 shows the location of the property and proposed project site. Based on Federal Emergency Management Agency Flood Insurance Rate Maps (36119C0353F and 36119C0361F) as shown in Figure 2, portions of the project site are located within the storm surge 100-year floodplain limit. Based on the NYSDEC Stormwater Interactive Mapper, accessed at <https://gisservices.dec.ny.gov/gis/stormwater/>, the subject site is in the Village of Mamaroneck, an MS4 regulated community.

2.2 - Description

The project proposes maintenance of an existing, approximate 8,093 square foot manmade irrigation feature. An estimated 800 cubic yards of material will be removed from the manmade irrigation feature and shall be stockpiled onsite directly adjacent to the irrigation feature for subsequent landscaping uses on the golf course. The site is currently a country club; no change in use is proposed. The site will be accessed via Cooper Avenue at the northern corner of the property and the maintenance contractor will utilize existing internal maintenance access paths to access the project site.

2.3 - Disturbance

Land disturbance shall be limited to the extents of the manmade irrigation feature and the proposed stockpile area immediately adjacent to the feature, approximately 0.74 acres of the 85.7-acre property. All disturbance and maintenance activities shall be confined to the 0.74-acre project site. According to the SPDES Permit No GP-0-20-001, no more than five (5) acres of land disturbance may occur at any one time without written approval from the NYSDEC or the MS4 officer.

It is the owner/operator's responsibility to understand and comply with the requirements in the SPDES Permit No GP-0-20-001 to be authorized by the MS4 official or NYSDEC to perform land disturbance activities more than 5 acres at any one time. At a minimum, the owner/operator shall adhere to the following:

- The owner/operator shall have a qualified inspector conduct at least one site inspection every seven (7) calendar days, for as long as soil is disturbed.
- In areas where soil disturbance activity has been temporarily or permanently ceased as defined in the NYSDEC SPDES permit, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity has ceased. The soil stabilization measures selected shall be in conformance with the current version most of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control.
- The owner or operator shall install any additional site-specific practices needed to protect water quality.

2.4 - Surface Water

The project site does not contain federal and state-regulated wetlands (US Army Corp of Engineers and NYSDEC). The project site contains a Village of Mamaroneck regulated surface water feature as defined by the Village of Mamaroneck Ordinance § 192.

A review of the National Flood Insurance Program Flood Insurance Rate Map No.'s 36119C0353F (effective date of 9/28/2007) and 36119C0361F (effective date of 09/28/2007), Village of Mamaroneck show that the project site is located within FEMA 100-year storm surge floodplain limits. The project site is located within the FEMA 100-year floodplain limit, Zone AE, with a base flood elevation of 12 feet.

Refer to Figure 2 for FEMA 100-year floodplain maps.

In general, the property of interest discharges to the Long Island Sound located approximately 250 feet south of the property.

2.5 - Soils

Soil characteristics including soil types and hydrologic soil group classification of the studied drainage area was obtained online from the Web Soil Survey (WSS) operated by the USDA Natural Resources Conservation Service (NRCS). APPENDIX 3 - NRCS SOIL RESOURCE REPORT of the SWPPP provides the reports generated from the WSS and the below table summarizes as follows:

Symbol	Description	Hydrological Soil Group
Uc	Udorthents, wet substratum	A/D
UIC	Urban land-Charlton-Chatfield complex, rolling, very rocky	

Sediment sampling of the material to be removed from and stockpiled adjacent to the irrigation feature was performed on November 28, 2022. The material sampled meets the definition of "General Fill" as stated in the NYCRR Part 360.13.f and is acceptable for onsite reuse. APPENDIX 6 - ENVIRONMENTAL SAMPLING REPORT of the SWPPP provides the sampling report produced by GZA Environmental of New York.

FIGURE 1 - SITE LOCATION MAP



National Flood Hazard Layer FIRMette



73°44'35"W 40°56'29"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000
Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/14/2023 at 8:36 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

3 - Erosion and Sediment Control

The purposes of providing erosion and sediment control is to minimize temporary impacts to downgradient open water during any construction activities by controlling runoff and retaining sediment as much as possible within the site. Refer to grading and erosion control plan for proposed erosion control practices and details. The erosion and sediment control practices shall base on the guidelines from the latest NYSDEC SPDES General Permit GP-0-20-001 and New York Standards and Specifications for Erosion and Sediment Control (November 2016).

Erosion and sediment control practices includes, but not limiting to, providing the following activities by the owner/operator:

A) Silt Fence

A temporary barrier of geotextile fabric installed on the contours across a slope used to intercept sediment laden runoff from drainage area of disturbed soil by temporary ponding the sediment laden runoff allowing settling to occur.

B) Dust Control

Water shall be strayed from water truck during construction activity to prevent dust from forming and minimize sediment transport that may cause off-site damage, health hazards or traffic safety problem.

C) Pavement Sweeping

Pavement sweeping will remove sediments from the paved surfaces directly thus preventing sediment from stormwater runoff.

D) Stabilized Construction Entrance

A stabilized pad of aggregate underlain with geotextile located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, or parking area. The purpose of stabilized construction entrance is to reduce or eliminate the tracking of sediment onto public right-of way or streets.

E) Mulching

Applying coarse plant residue or chips, or other suitable materials, to cover the soil surface to provide initial erosion control while a seeding or shrub planting is establishing. Mulch will conserve moisture and modify the surface soil temperature and reduce fluctuation of both. Mulch will prevent soil surface crusting and aid in weed control.

F) Seeding

Providing temporary erosion control protection to disturbed areas and/or localized critical areas for an interim period by covering all bare ground that exists because of construction activities or natural event. Critical areas may include but not limited to steep excavated cut or fill slopes and any disturbed, denuded natural slopes subject to erosion.

G) Site Pollution Prevention

A collection of management practices intended to control non-sediment pollutants associated with construction activities to prevent the generation of pollutants due to improper handling, storage, and spills and prevent the movement of toxic substances from the site into surface waters.

H) Topsoiling

Spreading a specified quality and quantity of topsoil materials on graded or constructed subsoil areas to provide acceptable plant cover growing conditions, thereby reducing erosion; to reduce irrigation water needs; and to reduce the need for nitrogen fertilizer application.

I) Temporary Construction Area Seeding

Providing temporary erosion control protection to disturbed areas and/or localized critical areas for an interim period by covering all bare ground that exists because of construction activities or natural event. Critical areas may include but not limited to steep excavated cut or fill slopes and any disturbed, denuded natural slopes subject to erosion.

Erosion & Sedimentation Control Implementation

Description	Implementation Schedule	Inspection Frequency	Maintenance Requirement
Silt Fence	Installed prior to soil disturbance and remains until final site stabilization	Monthly and after every major rainfall event	Sediment shall be removed once accumulated up to 6 inches of sediment. Damaged silt fence shall be replaced immediately.
Dust Control	Performed once soil disturbed and continue until site final stabilization	Daily	Maintain dust control measures through dry weather periods until all disturbed areas are stabilized.
Pavement Sweeping	Performed once construction begin and continue until site final stabilization	Bi-weekly (Twice a month)	Remove sediment on pavement as much as possible.
Stabilized Construction Entrance	Installed once construction begin and continue until site final stabilization	Weekly	Inspect and perform maintenance including washing, top-dressing with additional stone, reworking, and compaction. Remove sediment by shoveling or sweeping and transport to a suitable disposal area where it can be stabilized.
Seeding & Mulching	Performed to disturbed and exposed soil (14 days max)	Weekly	Reseeding and re-mulching as necessary. Apply at a rate of 4 tons per acre.
Site Pollution Prevention	Performed once construction begins and continues until site final stabilization	Weekly	Remove site pollution as much as possible.
Topsoiling	Performed once construction begins and continues until site final stabilization	Weekly	Apply as needed to subsoils that are droughty (low available moisture for plants), stony, slowly permeable, salty or extremely acid.
Temporary Construction Area Seeding	Performed once construction begins and continues until site final stabilization	Weekly	Seedbed must be seeded within 24 hours of disturbance or scarification of the soil surface will be necessary prior to seeding. Mulch the area with hay or straw at 2 tons/acre (approx. 90 lbs./1000 sq. ft. or 2 bales).

4 - Soil Restoration

Soil restoration is required practice by NYSDEC applied across area of a development site where soils have been disturbed and will be vegetated to recover the original properties and porosity of the soil. Healthy soil is vital to a sustainable environment and landscape.

Soil restoration is applied in the cleanup, restoration and landscaping phase of construction followed by the permanent establishment of an appropriate, deep-rooted groundcover to help maintain the restored soil structure. Table below summarized the soil restoration requirements by NYSDEC.

Soil Restoration Requirements			
Type of Soil Disturbance	Soil Restoration Requirement		Comments/Examples
No soil disturbance	Restoration not permitted		Preservation of natural features
Minimal soil disturbance	Restoration not required		Clearing and grubbing
Areas where topsoil is stripped only – no change in grade	HSG A & B	HSG C & D	Protect area from any ongoing construction activities
	Apply 6 inches of topsoil	Aerate* and apply 6 inches of topsoil	
Areas of cut or fill	HSG A & B	HSG C & D	
	Aerate and apply 6 inches of topsoil	Apply full soil restoration**	
Heavy traffic areas on site (especially in a zone 5-25 foot around buildings but not within a 5-foot perimeter around foundation walls)	Apply full soil restoration (de-compaction and compost enhancement)		
Areas where runoff reduction and/or infiltration practices are applied	Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.		Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single-phase operation fence area
Redevelopment projects	Soil restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.		

*Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.

**Per “Deep Ripping and De-compaction, DEC 2008”

During periods of relatively low to moderate subsoil moisture, the disturbed subsoils are returned to rough grade and the following soil restoration steps applied:

1. Apply 3 inches of compost over subsoil
2. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc. Or tiller, mixing, and circulating are and compost into subsoils
3. Rock-pick until uplifted stone/rock materials of four inches and larger size are cleaned off the site
4. Apply topsoil to a depth of 6 inches
5. Vegetate as required by approved plan

At the end of the project an inspector should be able to push a 3/8” metal bar 12 inches into the soil just with body weight.

5 - General Construction Phases

The project in general will occur in three generalized phases in relation to erosion and sedimentation control.

Phase 1: Site preparation and erosion control measures

Phase 2: Manmade irrigation feature maintenance and rough grading

Phase 3: Erosion control measures removal and final stabilization

The proposed grading and erosion and sediment control plan are shown in APPENDIX 7 - CONSTRUCTION DRAWINGS.

Phase 1) Site Preparation and Erosion Control Measures

(Limits of Disturbance = 0.74 ac)

Prior to any construction activities, the contractor shall notify Dig Safely NY (811) at least two (2) full working days, but no more than ten (10) working days, in accordance with New York State Law.

Establish and construct stabilized construction entrance and stockpile area.

Clear only as necessary for the installation of perimeter controls. Install the perimeter and controls shown on the erosion and sediment control plans including reinforced silt fence. At a minimum, the controls shown on the erosion and sediment control plans shall be installed, however, the owner/operator is solely responsible for installing additional controls if site conditions require additional controls to prevent erosion and sediment laden runoff from leaving the site in accordance with NYSDEC SPDES permit requirements.

After installation of the erosion control measures, the site will be rough graded to bring to the approximate proposed elevation.

Duration of Phase: 1 Week

Phase 2) Manmade Irrigation Feature Maintenance and Stockpile Grading

(Limits of Disturbance = 0.74 ac)

This phase includes maintenance to the existing manmade irrigation feature. Stockpile area shall be graded as needed to ensure a maximum 3:1 slope. All erosion and sediment controls shall be monitored, maintained, and replaced as required by SPDES permit requirements. Any excavations that must be dewatered shall be pumped into an approved filtering device before entering an active drainage system or dispersed to an undisturbed area.

Duration of Phase: 3 Weeks

Phase 3 Erosion Control Measures Removal and Final Stabilization

(Limits of Disturbance = 0.74 ac)

All litter, debris, and refuse shall be removed from the site. All remaining disturbed portions of the site to be stabilized to a minimum of 80% vegetated cover. All temporary control measures shall be removed once the site has been stabilized to the requirements in the SPDES permit.

Erosion control measures shall not be removed until the qualified professional has performed a site visit and has deemed that the site's permanent stabilization is satisfactory.

Timeframes for seeding and mulching, for disturbances less than 5 acres, in areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within 14 days from the date the current soil disturbance activity ceased.

Duration of Phase: 2 Weeks

6 - Construction Inspection and Maintenance

The SPDES General Permit GP-0-20-001 requires that the owner/operator be responsible for inspecting and maintaining the erosion control practices implementing on site. The owner/operator must document compliance with the permit throughout the entire construction process.

A) Inspection

- The owner/operator shall have a qualified inspector inspect all erosion and sediment control practices to ensure their integrity and effectiveness throughout the entire construction process.
- The qualified inspector shall perform inspection at least once every seven (7) calendar days. If construction work includes soil disturbance of greater than five (5) acres, qualified inspector shall conduct at least two (2) site inspections every seven (7) calendar days with minimum separation of two (2) full calendar days.
- Within one business day of the completion of an inspection, the qualified inspector shall notify the owner/operator and appropriate contractor, or subcontractor of any corrective actions shall be taken.
- The qualified inspector shall prepare an inspection report in accordance with the permit after each inspection. The owner/operator shall maintain a record of all inspection reports in a site logbook as part of the updated SWPPP and shall be make available upon request by permitting authority.

B) Maintenance

- Sediment shall be removed from behind silt fence or straw bale if accumulation of greater than 6-inches deep or as needed.
- Silt fence that are damaged shall be replaced or as necessary.
- The contractor or subcontractor shall begin implementing the corrective actions within one business day of the notification from qualified inspector and shall complete the corrective actions within a reasonable time frame.

7 - Spill Prevention/Control and Usage of Fertilizers

Spill Prevention

The following material management practices shall be implemented to minimize the risk of spills of material or substances to stormwater runoff:

- All materials stored onsite will be stored in an organized and proper manner in their appropriate containers, and (if possible) in a building or other enclosure.
- Products will be kept in their original containers and their original label.
- Un-used, remaining products will be stored in an appropriate manner to prevent leakage.
- No petroleum products or fertilizers shall be stored or handled within 100 feet of a wetland or waterway.
- Substance will not be mixed with one another unless recommended by the manufacturer and in a safe environment.
- Concrete trucks will not be allowed to wash out or discharge surplus concrete within 100 feet of wetland and waterway or into existing catch basins.
- Disposal of the products shall follow the manufacturer's recommendation.
- The contractor shall inspect the storage area daily to ensure proper use and disposal of the material onsite.

Spill Control

The following management practices shall be implemented for spill control, notification, and cleanup:

- Manufacturer's recommended methods for spill cleanup shall be posted onsite and personnel shall be informed of the cleanup procedure.
- Cleanup material and supplies shall be adequately provided onsite at all time. These include, but are not limited to, shovels, brooms, dustpans, rags, mops, goggles, speedy-dry sand, metal trash containers.
- All spills shall be cleaned up immediately after discovery.
- Personnel cleaning up the spills shall wear proper protective clothing to avoid injury.
- Spill of hazardous material that cannot be cleaned up properly shall be reported to the NYSDEC Spill Hotline: 1-800-457-7362 or others appropriate agency.

Usage of Fertilizers

Fertilizer onsite shall only be used in the minimum amounts recommended by the manufacturer and in strict conformance with the 2012 NYS Dishwasher Detergent and Nutrient Runoff Law. No fertilizer storage shall occur within 100 feet of a wetland or waterway. Refer to APPENDIX 5 - NYS DISHWASHER DETERGENT AND NUTRIENT RUNOFF LAW.

Solvents, Paints, Stucco and other Hazardous Substances

All containers will be tightly sealed and stored when not required for use. Excess materials will not be discharged to the storm sewer system but will be properly disposed according to manufacturer's instructions or state and local regulations. No storage will occur within 100 feet of a wetland or waterway.

8 - Appendices

APPENDIX 1 - NYSDEC SPDES PERMIT NO. GP-0-20-001



Department of
Environmental
Conservation

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

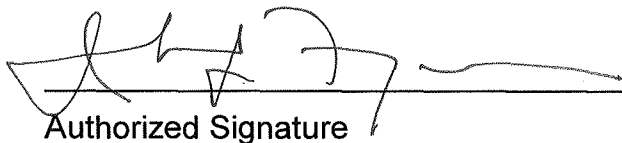
Issued Pursuant to Article 17, Titles 7, 8 and Article 70
of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator



Authorized Signature

1-23-20
Date

Address: NYS DEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act (“CWA”), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System (“NPDES”)* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of “*construction activity*”, as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM
CONSTRUCTION ACTIVITIES**

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Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State*.
3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

Discharges authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize* the *discharge of pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* (“SWPPP”) the reason(s) for the

deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

- a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge of pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:
- (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharges*;
 - (ii) Control stormwater *discharges*, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;
 - (iii) *Minimize* the amount of soil exposed during *construction activity*;
 - (iv) *Minimize* the disturbance of *steep slopes*;
 - (v) *Minimize* sediment *discharges* from the site;
 - (vi) Provide and maintain *natural buffers* around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharges*, unless *infeasible*;
 - (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;
 - (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and
 - (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.
- b. **Soil Stabilization.** In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

- c. **Dewatering.** *Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, must be managed by appropriate control measures.*
- d. **Pollution Prevention Measures.** Design, install, implement, and maintain effective pollution prevention measures to *minimize the discharge of pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:
 - (i) *Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;*
 - (ii) *Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and*
 - (iii) *Prevent the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.*
- e. **Prohibited Discharges.** The following *discharges* are prohibited:
 - (i) *Wastewater from washout of concrete;*
 - (ii) *Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;*

- (iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;
 - (iv) Soaps or solvents used in vehicle and equipment washing; and
 - (v) Toxic or hazardous substances from a spill or other release.
- f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-construction Stormwater Management Practice Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual (“Design Manual”), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices (“SMPs”) are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

- (i) Runoff Reduction Volume (“RRv”): Reduce the total Water Quality Volume (“WQv”) by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.
- (ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (“Cpv”): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
 - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
 - (2) The site discharges directly to tidal waters, or fifth order or larger streams.
- (iv) *Overbank* Flood Control Criteria (“Qp”): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
 - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.
- (v) Extreme Flood Control Criteria (“Qf”): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
 - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.

b. Sizing Criteria for New Development in Enhanced Phosphorus Removal Watershed

- (i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be

calculated in accordance with the criteria in Section 10.3 of the Design Manual.

- (ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
 - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
 - (2) The site *discharges* directly to tidal waters, or fifth order or larger streams.
- (iv) Overbank Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
 - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.
- (v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
 - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.

c. Sizing Criteria for Redevelopment Activity

- (i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.
 - (1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or
 - (2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or
 - (3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or
 - (4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

- (ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iii) Overbank Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

d. Sizing Criteria for Combination of Redevelopment Activity and New Development

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

D. Maintaining Water Quality

The Department expects that compliance with the conditions of this permit will control *discharges* necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;
2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and
3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharges* authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharges* authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharges* will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.
2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharges*; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.
3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: “Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned”; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharges* from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.
4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

F. Activities Which Are Ineligible for Coverage Under This General Permit

All of the following are **not** authorized by this permit:

1. *Discharges* after *construction activities* have been completed and the site has undergone *final stabilization*;
2. *Discharges* that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;
3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;
4. *Construction activities* or *discharges* from *construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

operator has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;
6. *Construction activities* for residential, commercial and institutional projects:
 - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
 - b. Which are undertaken on land with no existing *impervious cover*; and
 - c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.
7. *Construction activities* for linear transportation projects and linear utility projects:
 - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
 - b. Which are undertaken on land with no existing *impervious cover*; and
 - c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:
- a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.
 - 1-5 acres of disturbance - 20 feet
 - 5-20 acres of disturbance - 50 feet
 - 20+ acres of disturbance - 100 feet, or
 - b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
 - (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
 - (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
 - (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
 - (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or
 - c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

- (i) No Affect
- (ii) No Adverse Affect
- (iii) Executed Memorandum of Agreement, or

d. Documentation that:

- (i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.

9. *Discharges from construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.
2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the "MS4 SWPPP Acceptance" form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.
3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of Owner or Operator) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4*. This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (<http://www.dec.ny.gov/>). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

**NOTICE OF INTENT
NYS DEC, Bureau of Water Permits
625 Broadway, 4th Floor
Albany, New York 12233-3505**

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.
3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.
4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.
2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:
 - a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (<http://www.dec.ny.gov/>) for more information,
 - b. where required, all necessary Department permits subject to the *Uniform Procedures Act* ("UPA") (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators of construction activities* that are required to obtain UPA permits

must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

- c. the final SWPPP has been prepared, and
 - d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.
3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:
- a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:
 - (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or
 - (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;
 - (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

- b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:
 - (i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed “MS4 SWPPP Acceptance” form, or
 - (ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed “MS4 SWPPP Acceptance” form.
4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination (“NOT”) has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.
2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor’s or subcontractor’s certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.
3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

use control MS4, the regulated, traditional land use control MS4 (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

- a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
 - b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.
 - c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
 - d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.
 - e. The *owner or operator* shall include the requirements above in their SWPPP.
4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..
 5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.
 6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

regulated, traditional land use control MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

E. Permit Coverage for Discharges Authorized Under GP-0-15-002

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of a *construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4*, the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.
2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.
3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

operator was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.
2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.
3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.
4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:
 - a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

- b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;
 - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority; and
 - d. to document the final construction conditions.
5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.
6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges* from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:
 - a. Background information about the scope of the project, including the location, type and size of project

- b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge(s)*;
- c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);
- d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;
- e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;
- f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;
- g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;
- h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;
- i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

- j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;
 - k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and
 - l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

The post-construction stormwater management practice component of the SWPPP shall include the following:

- a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

- b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;
- c. A Stormwater Modeling and Analysis Report that includes:
 - (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;
 - (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;
 - (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;
 - (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;
 - (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and
 - (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;
- d. Soil testing results and locations (test pits, borings);
- e. Infiltration test results, when required; and
- f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria*, Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

C. Required SWPPP Components by Project Type

Unless otherwise notified by the Department, *owners or operators of construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators of the construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.
2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.
3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
 - Certified Professional in Erosion and Sediment Control (CPESC),
 - New York State Erosion and Sediment Control Certificate Program holder
 - Registered Landscape Architect, or
 - someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].
1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:
 - a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

- b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;
 - c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
 - d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:
- a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.
 - b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
 - c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization*, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the “*Final Stabilization*” and “*Post-Construction Stormwater Management Practice*” certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.
 - e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization*, all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.
 4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

- a. Date and time of inspection;
- b. Name and title of person(s) performing inspection;
- c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
- d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
- e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;
- f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;
- g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;
- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);
- k. Identification and status of all corrective actions that were required by previous inspection; and

- I. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.
2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:
 - a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

- b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;
 - c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.
 - d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.
3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the “*Final Stabilization*” and “Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.
4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the “MS4 Acceptance” statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector’s* final site inspection certification(s) required in Part V.A.3. of this permit.
5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:
- a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,
- d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

B. Addresses

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

B. Continuation of the Expired General Permit

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

C. Enforcement

Failure of the *owner or operator*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

E. Duty to Mitigate

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

G. Other Information

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:
 - a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

- (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - (i) the chief executive officer of the agency, or
 - (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

- c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.
3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.
4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person.

It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

K. Requirement to Obtain Coverage Under an Alternative Permit

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge(s)*, the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner's or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.
4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions

Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.
2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

R. Other Permits

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
Cpv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DOW – Division of Water
EAF – Environmental Assessment Form
ECL - Environmental Conservation Law
EPA – U. S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review
SEQRA - State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property – means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State” prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both “sewage” and “stormwater”.

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for “*Construction Activity(ies)*” also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Construction Site – means the land area where *construction activity(ies)* will occur. See definition for “*Commence (Commencement of) Construction Activities*” and “*Larger Common Plan of Development or Sale*” also.

Dewatering – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

Embankment – means an earthen or rock slope that supports a road/highway.

Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department’s rules and regulations for definition of terms and requirements.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- (ii) Designed or used for collecting or conveying stormwater;
- (iii) Which is not a *combined sewer*; and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

Natural Buffer – means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Performance Criteria – means the design criteria listed under the “Required Elements” sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf) in Part I.C.2. of the permit.

Point Source - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Routine Maintenance Activity - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank Flood* (Qp), and *Extreme Flood* (Qf).

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Steep Slope – means land area designated on the current United States Department of Agriculture (“USDA”) Soil Survey as Soil Slope Phase “D”, (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint sources*. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint sources*, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1
Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

<p>The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:</p> <ul style="list-style-type: none">• Single family home <u>not</u> located in one of the watersheds listed in Appendix C or <u>not directly discharging</u> to one of the 303(d) segments listed in Appendix E• Single family residential subdivisions with 25% or less impervious cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E• Construction of a barn or other <i>agricultural building</i>, silo, stock yard or pen.
<p>The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:</p> <p>All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.</p>
<p>The following construction activities that involve soil disturbances of one (1) or more acres of land:</p> <ul style="list-style-type: none">• Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains• Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects• Pond construction• Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover• Cross-country ski trails and walking/hiking trails• Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;• Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.• Slope stabilization projects• Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

**Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP
THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS**

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State", excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES
POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development conditions*
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES
POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES**

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover*, and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

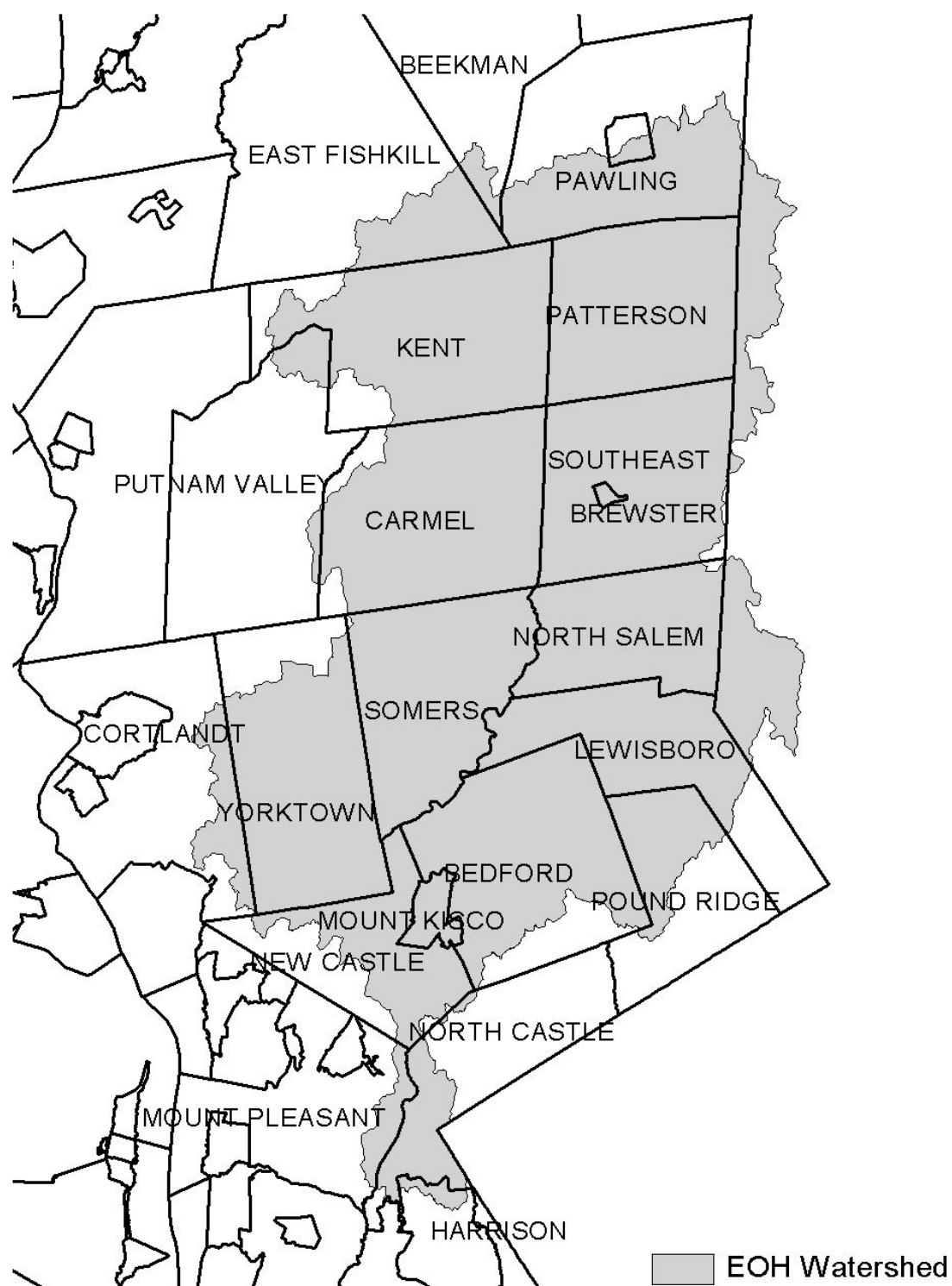
Figure 1 - New York City Watershed East of the Hudson

Figure 2 - Onondaga Lake Watershed

Figure 3 - Greenwood Lake Watershed

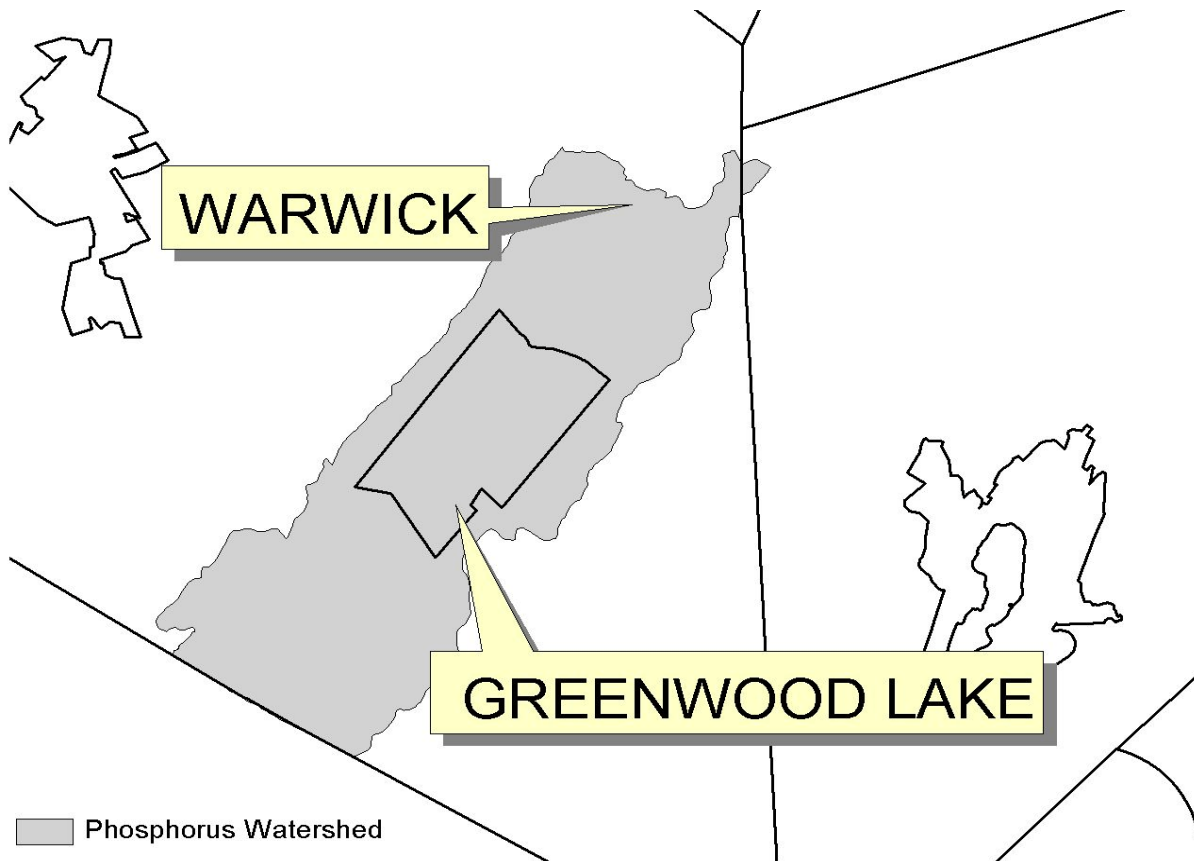


Figure 4 - Oscawana Lake Watershed

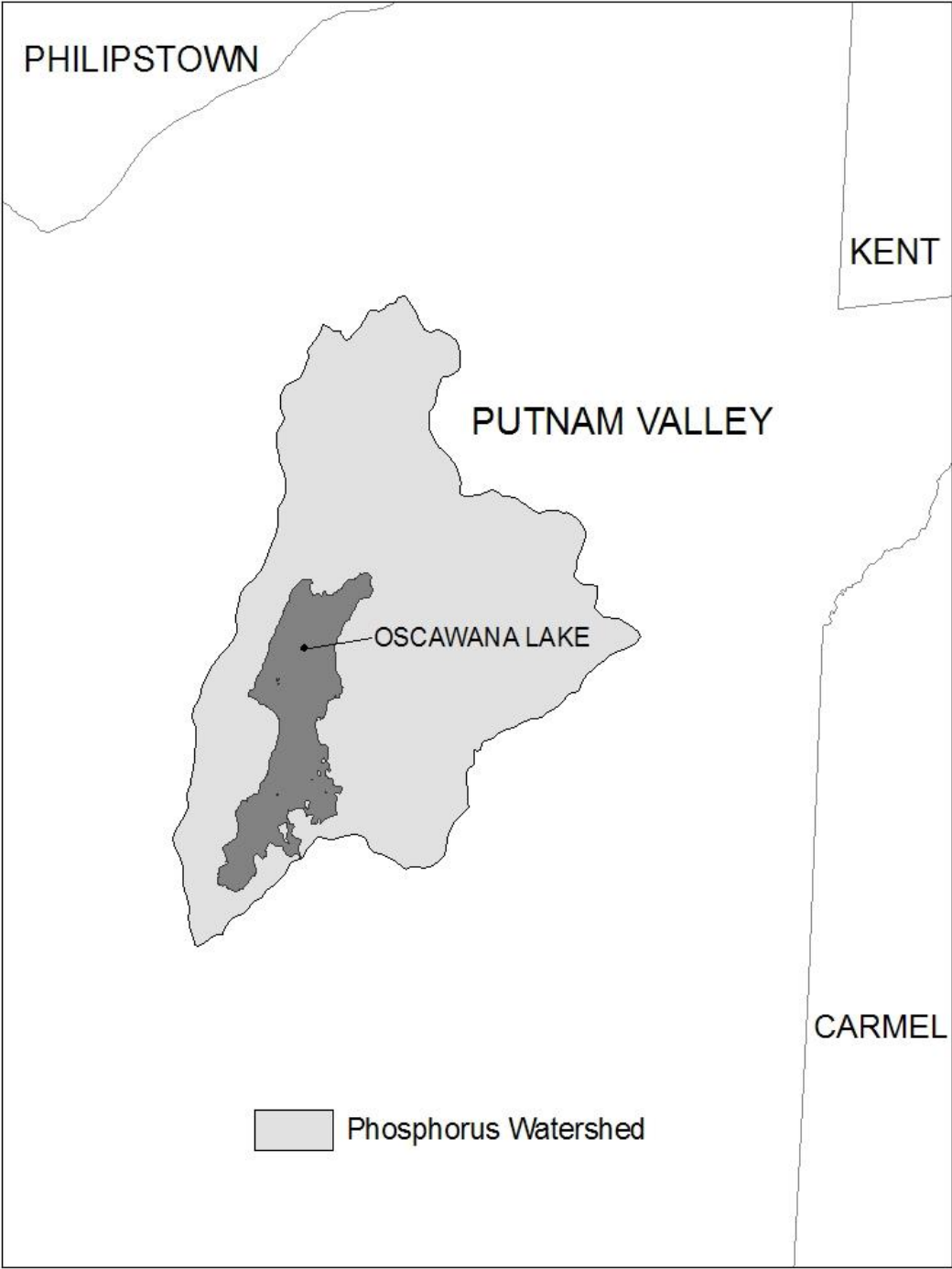
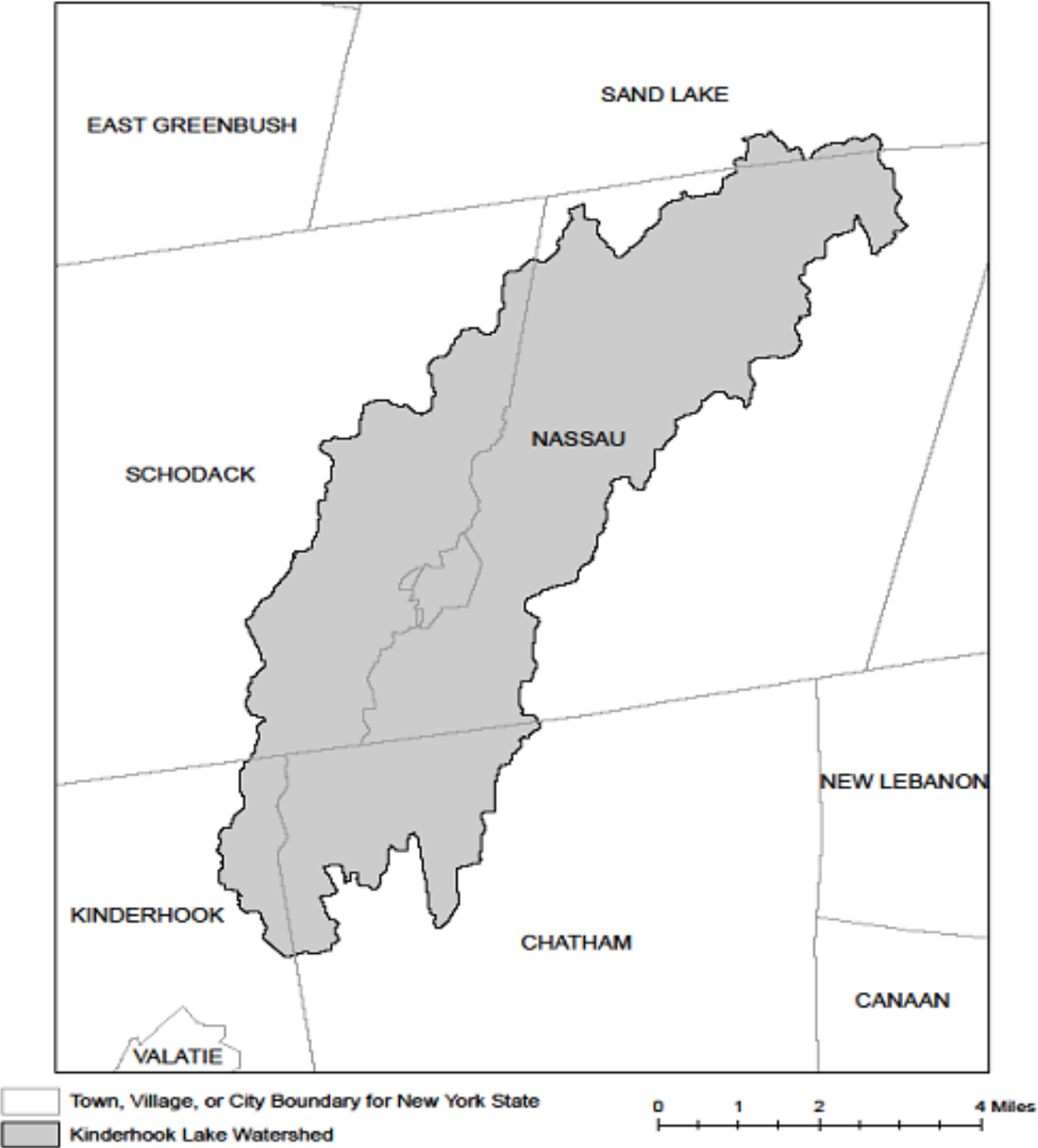


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C
--

APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

APPENDIX F – List of NYS DEC Regional Offices

<u>Region</u>	<u>COVERING THE FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 TEL. (631) 444-0365	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 TEL. (631) 444-0405
2	BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4997	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PUTT CORNERS ROAD NEW PALTZ, NY 12561-1696 TEL. (845) 256-3059	100 HILLSIDE AVENUE, SUITE 1W WHITE PLAINS, NY 10603 TEL. (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1150 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, Po Box 296 RAY BROOK, NY 12977-0296 TEL. (518) 897-1234	232 GOLF COURSE ROAD WARRENSBURG, NY 12885-1172 TEL. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

APPENDIX 2 - CERTIFICATION STATEMENT

CONTRACTORS CERTIFICATION STATEMENT

Hampshire Country Club

Project Location:
1025 Cove Road
Mamaroneck, NY 13440

The following certification shall be signed and completed by each contractor and subcontractor responsible for the on-site construction activities.

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibilities of fine and imprisonment for knowing violations."

Owner/Operator	Contractor	Subcontractor
_____ Signature and Date	_____ Signature and Date	_____ Signature and Date
_____ Name and Title	_____ Name and Title	_____ Name and Title
_____ Specific SWPPP Elements Responsible For	_____ Specific SWPPP Elements Responsible For	_____ Specific SWPPP Elements Responsible For
_____ Telephone	_____ Telephone	_____ Telephone
_____ Company and Address	_____ Company and Address	_____ Company and Address
Subcontractor	Subcontractor	Subcontractor
_____ Signature and Date	_____ Signature and Date	_____ Signature and Date
_____ Name and Title	_____ Name and Title	_____ Name and Title
_____ Specific SWPPP Elements Responsible For	_____ Specific SWPPP Elements Responsible For	_____ Specific SWPPP Elements Responsible For
_____ Telephone	_____ Telephone	_____ Telephone
_____ Company and Address	_____ Company and Address	_____ Company and Address

APPENDIX 3 - NRCS SOIL RESOURCE REPORT



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Westchester County, New York**



March 14, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot


 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop


 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip


 Sodic Spot


 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

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 1:12,000.

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: Westchester County, New York
Survey Area Data: Version 18, Sep 10, 2022

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

Date(s) aerial images were photographed: Jul 21, 2014—Aug 27, 2014

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Uc	Udorthents, wet substratum	0.5	43.2%
UIC	Urban land-Charlton-Chatfield complex, rolling, very rocky	0.6	56.8%
Totals for Area of Interest		1.1	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

Custom Soil Resource Report

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Westchester County, New York

Uc—Udorthents, wet substratum

Map Unit Setting

National map unit symbol: bd7g
Elevation: 50 to 2,400 feet
Mean annual precipitation: 46 to 50 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 115 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents, wet substratum, and similar soils: 80 percent
Minor components: 6 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents, Wet Substratum

Typical profile

H1 - 0 to 4 inches: gravelly loam
H2 - 4 to 72 inches: very gravelly loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high
(0.06 to 5.95 in/hr)
Depth to water table: About 6 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Minor Components

Raynham

Percent of map unit: 2 percent
Hydric soil rating: Yes

Fredon

Percent of map unit: 2 percent
Landform: Depressions
Hydric soil rating: Yes

Ipswich

Percent of map unit: 2 percent
Landform: Tidal marshes
Hydric soil rating: Yes

UIC—Urban land-Charlton-Chatfield complex, rolling, very rocky

Map Unit Setting

National map unit symbol: bd7n
Elevation: 0 to 1,000 feet
Mean annual precipitation: 46 to 50 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 115 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 40 percent
Charlton and similar soils: 20 percent
Chatfield and similar soils: 15 percent
Minor components: 3 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton

Setting

Landform: Till plains, ridges, hills
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Acid loamy till derived mainly from schist, gneiss, or granite

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 24 inches: sandy loam
H3 - 24 to 60 inches: sandy loam

Properties and qualities

Slope: 2 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Description of Chatfield

Setting

Landform: Ridges, hills

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy till derived mainly from granite, gneiss, or schist

Typical profile

H1 - 0 to 7 inches: loam

H2 - 7 to 24 inches: flaggy silt loam

H3 - 24 to 28 inches: unweathered bedrock

Properties and qualities

Slope: 2 to 15 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 1 percent

Available water supply, 0 to 60 inches: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Hydrologic Soil Group: B

Ecological site: F144AY034CT - Well Drained Till Uplands

Hydric soil rating: No

Minor Components

Sun

Percent of map unit: 2 percent

Landform: Depressions

Hydric soil rating: Yes

Palms

Percent of map unit: 1 percent

Landform: Swamps, marshes

Hydric soil rating: Yes

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

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Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report Map—Hydrologic Soil Group



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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines


 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 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 1:12,000.

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

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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)

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Survey Area Data: Version 18, Sep 10, 2022

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Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Uc	Udorthents, wet substratum	A/D	0.5	43.2%
UIC	Urban land-Charlton-Chatfield complex, rolling, very rocky		0.6	56.8%
Totals for Area of Interest			1.1	100.0%

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

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APPENDIX 4 - SAMPLE OF CONSTRUCTION SITE LOGBOOK

APPENDIX F
CONSTRUCTION SITE INSPECTION
AND MAINTENANCE LOG BOOK

**STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION
ACTIVITIES**

SAMPLE CONSTRUCTION SITE LOG BOOK

Table of Contents

- I. Pre-Construction Meeting Documents
 - a. Preamble to Site Assessment and Inspections
 - b. Pre-Construction Site Assessment Checklist

- II. Construction Duration Inspections
 - a. Directions
 - b. Modification to the SWPPP

I. PRE-CONSTRUCTION MEETING DOCUMENTS

Project Name _____
Permit No. _____ **Date of Authorization** _____
Name of Operator _____
Prime Contractor _____

a. Preamble to Site Assessment and Inspections

The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified inspector¹ conduct an assessment of the site prior to the commencement of construction² and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements. A preconstruction meeting should be held to review all of the SWPPP requirements with construction personnel.

When construction starts, site inspections shall be conducted by the qualified inspector at least every 7 calendar days. The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified inspector perform a final site inspection. The qualified inspector shall certify that the site has undergone final stabilization³ using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 Refer to "Qualified Inspector" inspection requirements in the current SPDES General Permit for Stormwater Discharges from Construction Activity for complete list of inspection requirements.

2 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

3 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

b. Pre-construction Site Assessment Checklist

(NOTE: Provide comments below as necessary)

1. Notice of Intent, SWPPP, and Contractors Certification:

Yes No NA

- ☐ ☐ ☐ Has a Notice of Intent been filed with the NYS Department of Conservation?
- ☐ ☐ ☐ Is the SWPPP on-site? Where? _____
- ☐ ☐ ☐ Is the Plan current? What is the latest revision date? _____
- ☐ ☐ ☐ Is a copy of the NOI (with brief description) onsite? Where? _____
- ☐ ☐ ☐ Have all contractors involved with stormwater related activities signed a contractor's certification?

2. Resource Protection

Yes No NA

- ☐ ☐ ☐ Are construction limits clearly flagged or fenced?
- ☐ ☐ ☐ Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
- ☐ ☐ ☐ Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

Yes No NA

- ☐ ☐ ☐ Clean stormwater runoff has been diverted from areas to be disturbed.
- ☐ ☐ ☐ Bodies of water located either on site or in the vicinity of the site have been identified and protected.
- ☐ ☐ ☐ Appropriate practices to protect on-site or downstream surface water are installed.
- ☐ ☐ ☐ Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Access

Yes No NA

- ☐ ☐ ☐ A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
- ☐ ☐ ☐ Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
- ☐ ☐ ☐ Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Sediment Controls

Yes No NA

- ☐ ☐ ☐ Silt fence material and installation comply with the standard drawing and specifications.
- ☐ ☐ ☐ Silt fences are installed at appropriate spacing intervals
- ☐ ☐ ☐ Sediment/detention basin was installed as first land disturbing activity.
- ☐ ☐ ☐ Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

Yes No NA

- ☐ ☐ ☐ The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
- ☐ ☐ ☐ The plan is contained in the SWPPP on page _____
- ☐ ☐ ☐ Appropriate materials to control spills are onsite. Where? _____

II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:

Inspection Forms will be filled out during the entire construction phase of the project.

Required Elements:

- 1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;
- 2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;
- 3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;
- 4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);
- 5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and
- 6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

SITE PLAN/SKETCH

Inspector (print name)

Date of Inspection

Qualified Inspector (print name)

Qualified Inspector Signature

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

Maintaining Water Quality**Yes No NA**

- ☐ ☐ ☐ Is there an increase in turbidity causing a substantial visible contrast to natural conditions at the outfalls?
- ☐ ☐ ☐ Is there residue from oil and floating substances, visible oil film, or globules or grease at the outfalls?
- ☐ ☐ ☐ All disturbance is within the limits of the approved plans.
- ☐ ☐ ☐ Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping

1. General Site Conditions

Yes No NA

- ☐ ☐ ☐ Is construction site litter, debris and spoils appropriately managed?
- ☐ ☐ ☐ Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
- ☐ ☐ ☐ Is construction impacting the adjacent property?
- ☐ ☐ ☐ Is dust adequately controlled?

2. Temporary Stream Crossing

Yes No NA

- ☐ ☐ ☐ Maximum diameter pipes necessary to span creek without dredging are installed.
- ☐ ☐ ☐ Installed non-woven geotextile fabric beneath approaches.
- ☐ ☐ ☐ Is fill composed of aggregate (no earth or soil)?
- ☐ ☐ ☐ Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

3. Stabilized Construction Access

Yes No NA

- ☐ ☐ ☐ Stone is clean enough to effectively remove mud from vehicles.
- ☐ ☐ ☐ Installed per standards and specifications?
- ☐ ☐ ☐ Does all traffic use the stabilized entrance to enter and leave site?
- ☐ ☐ ☐ Is adequate drainage provided to prevent ponding at entrance?

Runoff Control Practices

1. Excavation Dewatering

Yes No NA

- ☐ ☐ ☐ Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.
- ☐ ☐ ☐ Clean water from upstream pool is being pumped to the downstream pool.
- ☐ ☐ ☐ Sediment laden water from work area is being discharged to a silt-trapping device.
- ☐ ☐ ☐ Constructed upstream berm with one-foot minimum freeboard.

Runoff Control Practices (continued)

2. Flow Spreader

Yes No NA

- ☐ ☐ ☐ Installed per plan.
☐ ☐ ☐ Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.
☐ ☐ ☐ Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales

Yes No NA

- ☐ ☐ ☐ Installed per plan with minimum side slopes 2H:1V or flatter.
☐ ☐ ☐ Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.
☐ ☐ ☐ Sediment-laden runoff directed to sediment trapping structure

4. Stone Check Dam

Yes No NA

- ☐ ☐ ☐ Is channel stable? (flow is not eroding soil underneath or around the structure).
☐ ☐ ☐ Check is in good condition (rocks in place and no permanent pools behind the structure).
☐ ☐ ☐ Has accumulated sediment been removed?.

5. Rock Outlet Protection

Yes No NA

- ☐ ☐ ☐ Installed per plan.
☐ ☐ ☐ Installed concurrently with pipe installation.

Soil Stabilization

1. Topsoil and Spoil Stockpiles

Yes No NA

- ☐ ☐ ☐ Stockpiles are stabilized with vegetation and/or mulch.
☐ ☐ ☐ Sediment control is installed at the toe of the slope.

2. Revegetation

Yes No NA

- ☐ ☐ ☐ Temporary seedings and mulch have been applied to idle areas.
☐ ☐ ☐ 4 inches minimum of topsoil has been applied under permanent seedings

Sediment Control Practices

1. Silt Fence and Linear Barriers

Yes No NA

- ☐ ☐ ☐ Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
☐ ☐ ☐ Joints constructed by wrapping the two ends together for continuous support.
☐ ☐ ☐ Fabric buried 6 inches minimum.
☐ ☐ ☐ Posts are stable, fabric is tight and without rips or frayed areas.
Sediment accumulation is ____% of design capacity.

Sediment Control Practices (continued)

2. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated; Filter Sock or Manufactured practices)

Yes No NA

- ☐ ☐ ☐ Installed concrete blocks lengthwise so open ends face outward, not upward.
- ☐ ☐ ☐ Placed wire screen between No. 3 crushed stone and concrete blocks.
- ☐ ☐ ☐ Drainage area is 1 acre or less.
- ☐ ☐ ☐ Excavated area is 900 cubic feet.
- ☐ ☐ ☐ Excavated side slopes should be 2:1.
- ☐ ☐ ☐ 2" x 4" frame is constructed and structurally sound.
- ☐ ☐ ☐ Posts 3-foot maximum spacing between posts.
- ☐ ☐ ☐ Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
- ☐ ☐ ☐ Posts are stable, fabric is tight and without rips or frayed areas.
- ☐ ☐ ☐ Manufactured insert fabric is free of tears and punctures.
- ☐ ☐ ☐ Filter Sock is not torn or flattened and fill material is contained within the mesh sock.

Sediment accumulation ____% of design capacity.

3. Temporary Sediment Trap

Yes No NA

- ☐ ☐ ☐ Outlet structure is constructed per the approved plan or drawing.
- ☐ ☐ ☐ Geotextile fabric has been placed beneath rock fill.
- ☐ ☐ ☐ Sediment trap slopes and disturbed areas are stabilized.

Sediment accumulation is ____% of design capacity.

4. Temporary Sediment Basin

Yes No NA

- ☐ ☐ ☐ Basin and outlet structure constructed per the approved plan.
- ☐ ☐ ☐ Basin side slopes are stabilized with seed/mulch.
- ☐ ☐ ☐ Drainage structure flushed and basin surface restored upon removal of sediment basin facility.
- ☐ ☐ ☐ Sediment basin dewatering pool is dewatering at appropriate rate.

Sediment accumulation is ____% of design capacity.

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design. All practices shall be maintained in accordance with their respective standards.

Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

CONSTRUCTION DURATION INSPECTIONS

b. Modifications to the SWPPP (To be completed as described below)

The Operator shall amend the SWPPP whenever:

1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
2. The SWPPP proves to be ineffective in:
 - a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
 - b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:

This image shows a full page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, providing a template for handwriting practice or general writing. There are no margins, text, or other markings on the page.

APPENDIX 5 - NYS DISHWASHER DETERGENT AND NUTRIENT RUNOFF LAW



Department of
Environmental
Conservation

Lawn Fertilizer (NYS Nutrient Runoff Law)

Look for the Zero!

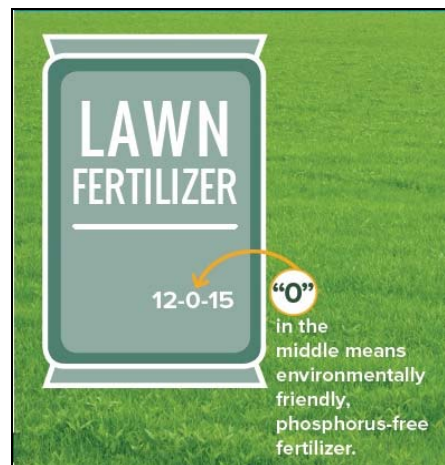
Before buying lawn fertilizer, check the bag for a set of three numbers showing the percentage of nitrogen, phosphorus and potassium. Buy a bag with a "0" in the middle.

Zero in the middle means phosphorus free and that means....

Zero pollution - Phosphorus is one of the leading causes of water pollution. Even if you live far from a water body, excess phosphorus from your lawn can wash off and pollute lakes and streams, harming fish and ruining boating and swimming. More than 100 water bodies in New York State cannot be used for drinking, fishing or swimming because they contain too much phosphorus.

Zero waste - Why pay for a chemical your lawn doesn't need? Generally, only newly established lawns or those with poor soil need phosphorus. Phosphorus applied to a lawn that doesn't need it won't be used and can cause water pollution.

Zero hassle - It's against the law to use phosphorus on lawns that don't need it. (New York State Environmental Conservation Law, article 17, title 21 and Agriculture and Markets Law § 146-g) Check local laws, too-some municipalities have stricter laws about selling and using lawn fertilizers.



An over-fertilized lawn can lead to a green lake! Excess phosphorus in waterbodies can cause algae overgrowth, including [harmful algal blooms](#), with serious impacts to the environment and public health.

When fertilizing your lawn...

Follow the requirements of the law. Do not:

- Use lawn fertilizer that contains phosphorus unless you are establishing a new lawn, or a [soil test](#) shows that your lawn does not have enough phosphorus.
- Apply any lawn fertilizer December 1 - April 1.
- Apply fertilizer on sidewalks, driveways or other impervious surfaces. If fertilizer spills onto these surfaces, you **MUST** sweep it up to prevent it from washing into drains or waterways. Do not hose it off.
- Apply lawn fertilizer within 20 feet of any water body unless...
 - There is at least a 10-foot buffer of shrubs, trees or other plants between the area you are fertilizing and the water,
 - or**
 - Fertilizer can be applied no closer than 3 feet from the water using a device with a spreader guard, deflector shield or drop spreader.

What should I see at the store?

Retailers who sell fertilizer must display phosphorus-containing fertilizer separately from phosphorus-free fertilizers and post a sign near the display. A sample sign is available in the "Important Links" section on the right-hand side of this page.

The law applies to:

- Homeowners applying fertilizer themselves
- Landscapers and lawn care professionals
- Pesticide applicators
- Retailers, distributors and manufacturers of lawn fertilizers
- Fertilizer/pesticide combination products (sometimes called "**weed and feeds**") when these products contain over 0.67% phosphorus.
- Organic phosphorus fertilizer (such as bone meal).

The law does not apply to:

- Use of products with 0.67 in the middle or lower
- Agricultural fertilizer or fertilizer for trees, shrubs or gardens
- Compost

Penalties:

- For an owner, owner's agent, or occupant of a household, the penalties are: issuance of a written warning with educational materials for a first violation; a fine of up to \$100 for a second violation; and fines up to \$250 for subsequent violations.
- The penalties for all others are: a fine up to \$500 for a first of violation; and fines up to \$1000 for subsequent offenses.

Get a Soil Test

If you think your lawn might need extra phosphorus, test your soil. Tests cost \$10-\$20. There are several options:

- Have testing done through your local Cornell Cooperative Extension office.

- Find a commercial laboratory that tests soil.
- Use a home test kit. These tests tend to be less accurate and do not come with fertilizer recommendations.

Fertilizer and Nitrogen on Long Island

Nitrogen runoff impacts both surface and groundwater quality on Long Island. Suffolk and Nassau counties have their own fertilizer laws to restrict nitrogen from fertilizer from reaching waterbodies. Visit the counties' websites for details about their respective regulations .

Dishwasher Detergent

The Nutrient Runoff Law also includes provisions regarding the sale of dishwasher detergent:

- The sale of newly stocked, phosphorus-containing dishwasher detergents for household use and commercial use is prohibited in NYS.
- There is no change to the phosphorus limits for detergents used to clean dairy equipment or food processing equipment.

As retailers are no longer allowed to sell phosphorus-containing dish detergent in NYS, consumers do not need to take any steps to comply with this portion of the law.

More about Lawn Fertilizer (NYS Nutrient Runoff Law):

[Text of Nutrient Runoff Law](#) - Environmental Conservation Law, article 17, title 21 and Agriculture and Markets Law § 146-g, effective January 2012

[FAQ for Lawn Fertilizer](#) - Additional information about the specifics of the Nutrient Runoff Law.

APPENDIX 6 - ENVIRONMENTAL SAMPLING REPORT



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January 13, 2023
File No. 41.0163094.00

Mr. David Smith
Hampshire Country Club
1025 Cove Road
Mamaroneck, NY 10543

Re: Environmental Sampling Letter Report
1025 Cove Road
Mamaroneck, NY 10543

Dear Mr. Smith:

GZA GeoEnvironmental of New York (GZA) is pleased to provide this Environmental Sampling Letter Report to Hampshire Country Club (Owner) summarizing sediment sampling conducted at 1025 Cove Road, Mamaroneck, NY (Site). The Site is identified in the Village of Mamaroneck Section 9, and the following assessor's block and lot numbers:

Block 35, Lot 700;
Block 36, Lot 1;
Block 42, Lots 367, 568, and 659; and
Block 43, Lots 1 and 12

The purpose of the sampling event was to collect sediment samples from an on-Site pond to assess whether the sediment is environmentally suitable for reuse on the Site or will require off-site disposal during future dredging activities. This scope of work was performed in accordance with our approved proposal, dated October 28, 2022 (executed on November 14, 2022), and is subject to the Limitations contained in **Attachment A**.

BACKGROUND

The Site is an active country club and golf course bounded by Delancey Cove to the south and residential neighborhoods to the north, west, and east. The clubhouse building is located in the southern section of the country club. To the southwest of the clubhouse is the golf pro shop building, swimming pool, and swimming pool maintenance building. On the north side of Cove Road, is a caddy headquarters/golf cart-storage garage. The central area is primarily comprised of the 18-hole golf course. The northern portion of the Site contains the maintenance areas and the above referenced on-Site pond. A topographic map showing the location of the Site is provided as **Figure 1**.

The Hampshire Country Club property currently irrigates the golf course with groundwater pumped from two irrigation wells on the Site. Water is pumped from the wells to a man-made holding pond (which is also used as an ornamental water hazard on the golf course) on the northern portion of the property and then used to irrigate the golf course, as needed. It is our understanding that sediment has accumulated in the man-made pond and is interfering with



the performance of the irrigation pumps, and the esthetics of the water feature. The Site Plan and pond location are shown on **Figure 2**.

SEDIMENT SAMPLING

On November 28, 2022, GZA mobilized to the Site to collect four sediment samples (designated GZ-01, GZ-02, GZ-03, and GZ-04) from the man-made pond on the northern portion of the property. Samples from the top 6-inches of the pond sediment were collected using a hand auger. The approximate sample locations are shown on **Figure 3**. The sediment samples were analyzed by Alpha Analytical Laboratories of Westborough, Massachusetts (Alpha) under chain-of-custody protocols. Alpha is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory. All four sediment samples were analyzed for Volatile Organic Compounds (VOCs) and two sediment samples (GZ-01 and GZ-02) were analyzed for Semi-Volatile Organic Compounds (SVOCs), Total Metals, Polychlorinated Biphenyls (PCBs), and Pesticides. Sediment samples were collected in accordance with 6 NYCRR Part 360.13.f (Solid Waste Regulations). Representative photographs of the sediment sampling are included in **Attachment B**.

SEDIMENT SAMPLING RESULTS

The analytical results of the sediment sampling were compared to the New York State Department of Environmental Conservation (NYSDEC) Part 375 Unrestricted Use, Residential Use, and Protection of Groundwater Soil Cleanup Objectives (SCOs). The sediment sampling results are discussed below and summarized in the attached **Tables 1** through **4**. The laboratory analytical report is provided in **Attachment C**.

Volatile Organic Compounds

Only one VOC, acetone, was detected at concentrations above the applicable SCOs. Acetone was detected at concentrations exceeding the Part 375 Unrestricted Use and Protection of Groundwater SCOs, but below the Part 375 Residential Use SCOs in GZ-01, GZ-02, and GZ-04. Acetone was also detected at concentrations exceeding the laboratory reporting limit in GZ-03, but below the SCOs. Acetone is a common laboratory contaminant, so it is likely that the elevated levels of acetone are due to the laboratory setting and not Site conditions. All other VOCs were either not detected or detected at concentrations below the applicable SCOs, as shown in **Table 1**.

Semi-Volatile Organic Compounds

SVOCs were either not detected or detected at concentrations below the applicable SCOs, as shown in **Table 2**.

Total Metals

Two metals, arsenic, and copper were detected at concentrations exceeding the Part 375 Unrestricted Use SCOs but below both the Part 375 Residential Use and Protection of Groundwater SCOs in GZ-02. All other metals were either not detected or detected at concentrations below the SCOs, as shown in **Table 3**.

Polychlorinated Biphenyls

PCBs were either not detected or detected at concentrations below the applicable SCOs, as shown in **Table 4**.



Pesticides

In samples collected from both GZ-01 and GZ-02, two pesticide parameters (4,4'-DDD and 4,4'-DDE) were detected at concentrations exceeding the Part 375 Unrestricted Use SCOs, but below both the Part 375 Residential Use and Protection of Groundwater SCOs. In addition, 4,4'-DDT was detected at concentrations exceeding the Part 375 Unrestricted Use SCOs, but below both the Part 375 Residential Use and Protection of Groundwater SCOs, in GZ-01. All other pesticides included within the analysis suite were either not detected or detected at concentrations below the SCOs, as shown in **Table 4**.

DISCUSSION

GZA makes the following observations regarding the sediment sampling program.

- Based on 6 NYCRR 360.13(e).1 (Solid Waste Regulations), GZA performed the amount of sampling to characterize up to 1,000 cubic yards of excavated sediments from the man-made pond. The sediments can be beneficially reused in any setting where the fill material meets engineering criteria for backfill (except: 1. Undeveloped land; and 2. Agricultural crop land). Additional sampling and analysis will be needed to evaluate excavation volumes of greater than 1,000 cubic yards.
- Based on the results of the sediment sampling and laboratory analysis performed by GZA, the material sampled meets the definition of "General Fill" as stated in the NYCRR Part 360.13.f. The sediments are acceptable for reuse onsite; however, we recommend resampling the VOCs to confirm/rule out the acetone concentrations if the material were being considered for off-site beneficial reuse (not anticipated).
- GZA did not collect geotechnical samples for grain-size analysis and have not evaluated the engineering criteria of the sediments for reuse.
- Report beneficial reuse to NYSDEC if greater than 10,000 tons of material are distributed (not anticipated).
- The default storage time of limit is 365 days for beneficially used materials without specific approval from the NYSDEC.

Should you have any questions or need additional consulting, please contact Stephen Kline at stephen.kline@gza.com or (212) 594-8140.

Very truly yours,

GZA GEOENVIRONMENTAL OF NEW YORK

Mark Hutson, P.G.
Senior Project Manager

Stephen M. Kline, P.E.
Associate Principal

Ernest R. Hanna, P.E.
Consultant Reviewer



CC: Dan Pfeffer, MWR Advisors
Susan Goldberger, MWR Advisors

ATTACHMENTS

Table 1 - VOCs in Sediment
Table 2 - SVOCs in Sediment
Table 3 - Total Metals in Sediment
Table 4 - PCBs and Pesticides in Sediment

Figure 1 - Site Location Map
Figure 2 - Site Plan
Figure 3 - Sediment Sample Location Map

Attachment A – Limitations
Attachment B – Site Photographs
Attachment C – Laboratory Analytical Report



TABLES

Table 1 - Volatile Organic Compounds in Sediment
Environmental Compliance Services

Hampshire Country Club
1025 Cove Road
Mamaroneck, NY

LOCATION	Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Residential Use Soil Cleanup Objectives	Part 375 Protection of Groundwater Soil Cleanup Objectives	GZ-01 11/28/2022 L2266450-01 0-6"	GZ-02 11/28/2022 L2266450-02 0-6"	GZ-03 11/28/2022 L2266450-03 0-6"	GZ-04 11/28/2022 L2266450-04 0-6"
SAMPLING DATE				Results	Qual	Results	Qual
LAB SAMPLE ID				Results	Qual	Results	Qual
SAMPLE DEPTH				Results	Qual	Results	Qual
Volatile Organic Compounds by EPA 5035 (mg/kg)							
1,1,1,2-Tetrachloroethane	--	--	--	0.0006 U	0.0018 U	0.00043 U	0.00071 U
1,1,1-Trichloroethane	0.68	100	0.68	0.0006 U	0.0018 U	0.00043 U	0.00071 U
1,1,2,2-Tetrachloroethane	--	--	--	0.0006 U	0.0018 U	0.00043 U	0.00071 U
1,1,2-Trichloroethane	--	--	--	0.0012 U	0.0037 U	0.00087 U	0.0014 U
1,1-Dichloroethane	0.27	19	0.27	0.0012 U	0.0037 U	0.00087 U	0.0014 U
1,1-Dichloroethene	0.33	100	0.33	0.0012 U	0.0037 U	0.00087 U	0.0014 U
1,1-Dichloropropene	--	--	--	0.0006 U	0.0018 U	0.00043 U	0.00071 U
1,2,3-Trichlorobenzene	--	--	--	0.001 J	0.0074 U	0.0017 U	0.0028 U
1,2,3-Trichloropropane	--	--	--	0.0024 U	0.0074 U	0.0017 U	0.0028 U
1,2,4,5-Tetramethylbenzene	--	--	--	0.00029 J	0.0074 U	0.0017 U	0.0028 U
1,2,4-Trichlorobenzene	--	--	--	0.00081 J	0.0074 U	0.0017 U	0.0028 U
1,2,4-Trimethylbenzene	3.6	47	3.6	0.0024 U	0.0074 U	0.0017 U	0.0028 U
1,2-Dibromo-3-chloropropane	--	--	--	0.0036 U	0.011 U	0.0026 U	0.0043 U
1,2-Dibromoethane	--	--	--	0.0012 U	0.0037 U	0.00087 U	0.0014 U
1,2-Dichlorobenzene	1.1	100	1.1	0.00028 J	0.0074 U	0.0017 U	0.0028 U
1,2-Dichloroethane	0.02	2.3	0.02	0.0012 U	0.0037 U	0.00087 U	0.0014 U
1,2-Dichloroethene, Total	--	--	--	0.0012 U	0.0037 U	0.00087 U	0.0014 U
1,2-Dichloropropane	--	--	--	0.0012 U	0.0037 U	0.00087 U	0.0014 U
1,3,5-Trimethylbenzene	8.4	47	8.4	0.0024 U	0.0074 U	0.0017 U	0.0028 U
1,3-Dichlorobenzene	2.4	17	2.4	0.00026 J	0.0074 U	0.0017 U	0.0028 U
1,3-Dichloropropane	--	--	--	0.0024 U	0.0074 U	0.0017 U	0.0028 U
1,3-Dichloropropene, Total	--	--	--	0.0006 U	0.0018 U	0.00043 U	0.00071 U
1,4-Dichlorobenzene	1.8	9.8	1.8	0.00035 J	0.001 J	0.0017 U	0.0028 U
1,4-Dioxane	0.1	9.8	0.1	0.096 U	0.3 U	0.07 U	0.11 U
2,2-Dichloropropane	--	--	--	0.0024 U	0.0074 U	0.0017 U	0.0028 U
2-Butanone	0.12	100	0.12	0.018 U	0.073 U	0.0087 U	0.0092 J
2-Hexanone	--	--	--	0.012 U	0.037 U	0.0087 U	0.014 U
4-Methyl-2-pentanone	--	--	--	0.012 U	0.037 U	0.0087 U	0.014 U
Acetone	0.05	100	0.05	0.074 U	0.41 U	0.016 U	0.096 U
Acrylonitrile	--	--	--	0.0048 U	0.015 U	0.0035 U	0.0057 U
Benzene	0.06	2.9	0.06	0.0006 U	0.0018 U	0.00043 U	0.00071 U
Bromobenzene	--	--	--	0.00017 J	0.0074 U	0.0017 U	0.0028 U
Bromochloromethane	--	--	--	0.0024 U	0.0074 U	0.0017 U	0.0028 U
Bromodichloromethane	--	--	--	0.0006 U	0.0018 U	0.00043 U	0.00071 U
Bromoform	--	--	--	0.0048 U	0.015 U	0.0035 U	0.0057 U
Bromomethane	--	--	--	0.0024 U	0.0074 U	0.0017 U	0.0028 U
Carbon disulfide	--	--	--	0.012 U	0.037 U	0.0087 U	0.014 U
Carbon tetrachloride	0.76	1.4	0.76	0.0012 U	0.0037 U	0.00087 U	0.0014 U
Chlorobenzene	1.1	100	1.1	0.00019 J	0.0018 U	0.00043 U	0.00071 U
Chloroethane	--	--	--	0.0024 U	0.0074 U	0.0017 U	0.0028 U
Chloroform	0.37	10	0.37	0.0018 U	0.0055 U	0.0013 U	0.0021 U
Chloromethane	--	--	--	0.0048 U	0.015 U	0.0035 U	0.0057 U
cis-1,2-Dichloroethene	0.25	59	0.25	0.0012 U	0.0037 U	0.00087 U	0.0014 U
cis-1,3-Dichloropropene	--	--	--	0.0006 U	0.0018 U	0.00043 U	0.00071 U
Dibromochloromethane	--	--	--	0.0012 U	0.0037 U	0.00087 U	0.0014 U
Dibromomethane	--	--	--	0.0024 U	0.0074 U	0.0017 U	0.0028 U
Dichlorodifluoromethane	--	--	--	0.012 U	0.037 U	0.0087 U	0.014 U
Ethyl ether	--	--	--	0.0024 U	0.0074 U	0.0017 U	0.0028 U
Ethylbenzene	1	30	1	0.0012 U	0.0037 U	0.00087 U	0.0014 U
Hexachlorobutadiene	--	--	--	0.00049 J	0.015 U	0.0035 U	0.0057 U
Isopropylbenzene	--	--	--	0.0012 U	0.0037 U	0.00087 U	0.0014 U
Methyl tert butyl ether	0.93	62	0.93	0.0024 U	0.0074 U	0.0017 U	0.0028 U
Methylene chloride	0.05	51	0.05	0.006 U	0.018 U	0.0043 U	0.0071 U
n-Butylbenzene	12	100	12	0.0012 U	0.0037 U	0.00087 U	0.0014 U
n-Propylbenzene	3.9	100	3.9	0.0012 U	0.0037 U	0.00087 U	0.0014 U
Naphthalene	12	100	12	0.0011 J	0.015 U	0.0035 U	0.0057 U
o-Chlorotoluene	--	--	--	0.0024 U	0.0074 U	0.0017 U	0.0028 U
o-Xylene	--	--	--	0.0012 U	0.0037 U	0.00087 U	0.0014 U
p-Chlorotoluene	--	--	--	0.00019 J	0.0074 U	0.0017 U	0.0028 U
p-Diethylbenzene	--	--	--	0.0024 U	0.0074 U	0.0017 U	0.0028 U
p-Ethyltoluene	--	--	--	0.0024 U	0.0074 U	0.0017 U	0.0028 U
p-Isopropyltoluene	--	--	--	0.0012 U	0.0037 U	0.00087 U	0.0014 U
p/m-Xylene	--	--	--	0.0024 U	0.0074 U	0.0017 U	0.0028 U
sec-Butylbenzene	11	100	11	0.0012 U	0.0037 U	0.00087 U	0.0014 U
Styrene	--	--	--	0.00035 J	0.0037 U	0.00087 U	0.0014 U
tert-Butylbenzene	5.9	100	5.9	0.0024 U	0.0074 U	0.0017 U	0.0028 U
Tetrachloroethene	1.3	5.5	1.3	0.0006 U	0.0018 U	0.00043 U	0.00071 U
Toluene	0.7	100	0.7	0.0012 U	0.0037 U	0.00087 U	0.0014 U
trans-1,2-Dichloroethene	0.19	100	0.19	0.0018 U	0.0055 U	0.0013 U	0.0021 U
trans-1,3-Dichloropropene	--	--	--	0.0012 U	0.0037 U	0.00087 U	0.0014 U
trans-1,4-Dichloro-2-butene	--	--	--	0.006 U	0.018 U	0.0043 U	0.0071 U
Trichloroethene	0.47	10	0.47	0.0006 U	0.0018 U	0.00043 U	0.00071 U
Trichlorofluoromethane	--	--	--	0.0048 U	0.015 U	0.0035 U	0.0057 U
Vinyl acetate	--	--	--	0.012 U	0.037 U	0.0087 U	0.014 U
Vinyl chloride	0.02	0.21	0.02	0.0012 U	0.0037 U	0.00087 U	0.0014 U
Xylenes, Total	0.26	100	1.6	0.0012 U	0.0037 U	0.00087 U	0.0014 U

Table Notes:	
--	No guidance value
mg/kg	Milligrams per kilogram
U	Not detected at the reported detection limit for the sample
J	Estimated Value. The target analyte concentration is below the quantitation limit (RL), but above the method detection limit (MDL)
0.3	Italics indicates the sample was not detected at the reported detection limit; however, the detection limit is above one or more of the soil cleanup objectives.
	Result exceeds the NYSDEC Part 375 Unrestricted Use and Protection of Groundwater Soil Cleanup Objectives

Table 2 - Semivolatile Organic Compounds in Sediment
Environmental Compliance Services

Hampshire Country Club
1025 Cove Road
Mamaroneck, NY

LOCATION	Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Residential Use Soil Cleanup Objectives	Part 375 Protection of Groundwater Soil Cleanup Objectives	GZ-01 11/28/2022 L2266450-01 0-6"	GZ-02 11/28/2022 L2266450-02 0-6"		
SAMPLING DATE				Results	Qual	Results	Qual
LAB SAMPLE ID							
SAMPLE DEPTH							
Semivolatile Organic Compounds by GC/MS (mg/kg)							
1,2,4,5-Tetrachlorobenzene	--	--	--	0.77	U	0.47	U
1,2,4-Trichlorobenzene	--	--	--	0.77	U	0.47	U
1,2-Dichlorobenzene	1.1	100	1.1	0.77	U	0.47	U
1,3-Dichlorobenzene	2.4	17	2.4	0.77	U	0.47	U
1,4-Dichlorobenzene	1.8	9.8	1.8	0.77	U	0.47	U
1,4-Dioxane	0.1	9.8	0.1	0.12	U	0.07	U
2,4,5-Trichlorophenol	--	--	--	0.77	U	0.47	U
2,4,6-Trichlorophenol	--	--	--	0.46	U	0.28	U
2,4-Dichlorophenol	--	--	--	0.7	U	0.42	U
2,4-Dimethylphenol	--	--	--	0.77	U	0.47	U
2,4-Dinitrophenol	--	--	--	3.7	U	2.2	U
2,4-Dinitrotoluene	--	--	--	0.77	U	0.47	U
2,6-Dinitrotoluene	--	--	--	0.77	U	0.47	U
2-Chloronaphthalene	--	--	--	0.77	U	0.47	U
2-Chlorophenol	--	--	--	0.77	U	0.47	U
2-Methylnaphthalene	--	--	--	0.93	U	0.56	U
2-Methylphenol	0.33	100	0.33	0.77	U	0.47	U
2-Nitroaniline	--	--	--	0.77	U	0.47	U
2-Nitrophenol	--	--	--	1.7	U	1	U
3,3'-Dichlorobenzidine	--	--	--	0.77	U	0.47	U
3-Methylphenol/4-Methylphenol	0.33	34	0.33	1.1	U	0.68	U
3-Nitroaniline	--	--	--	0.77	U	0.47	U
4,6-Dinitro-o-cresol	--	--	--	2	U	1.2	U
4-Bromophenyl phenyl ether	--	--	--	0.77	U	0.47	U
4-Chloroaniline	--	--	--	0.77	U	0.47	U
4-Chlorophenyl phenyl ether	--	--	--	0.77	U	0.47	U
4-Nitroaniline	--	--	--	0.77	U	0.47	U
4-Nitrophenol	--	--	--	1.1	U	0.66	U
Acenaphthene	20	100	20	0.62	U	0.38	U
Acenaphthylene	100	100	100	0.62	U	0.38	U
Acetophenone	--	--	--	0.77	U	0.47	U
Anthracene	100	100	100	0.24	J	0.28	U
Benzo(a)anthracene	1	1	1	0.52	J	0.28	U
Benzo(a)pyrene	1	1	1	0.5	J	0.38	U
Benzo(b)fluoranthene	1	1	1	0.6	J	0.28	U
Benzo(g,h,i)perylene	100	100	100	0.29	J	0.38	U
Benzo(k)fluoranthene	0.8	1	0.8	0.21	J	0.28	U
Benzoic Acid	--	--	--	2.5	U	1.5	U
Benzyl Alcohol	--	--	--	0.77	U	0.47	U
Biphenyl	--	--	--	1.8	U	1.1	U
Bis(2-chloroethoxy)methane	--	--	--	0.84	U	0.51	U
Bis(2-chloroethyl)ether	--	--	--	0.7	U	0.42	U
Bis(2-chloroisopropyl)ether	--	--	--	0.93	U	0.56	U
Bis(2-ethylhexyl)phthalate	--	--	--	0.77	U	0.47	U
Butyl benzyl phthalate	--	--	--	0.77	U	0.47	U
Carbazole	--	--	--	0.77	U	0.47	U
Chrysene	1	1	1	0.46	J	0.28	U
Di-n-butylphthalate	--	--	--	0.77	U	0.47	U
Di-n-octylphthalate	--	--	--	0.77	U	0.47	U
Dibenzo(a,h)anthracene	0.33	0.33	0.33	0.46	U	0.28	U
Dibenzofuran	7	14	7	0.095	J	0.47	U
Diethyl phthalate	--	--	--	0.77	U	0.47	U
Dimethyl phthalate	--	--	--	0.77	U	0.47	U
Fluoranthene	100	100	100	1.1	J	0.057	J
Fluorene	30	100	30	0.097	J	0.47	U
Hexachlorobenzene	0.33	0.33	0.33	0.46	U	0.28	U
Hexachlorobutadiene	--	--	--	0.77	U	0.47	U
Hexachlorocyclopentadiene	--	--	--	2.2	U	1.3	U
Hexachloroethane	--	--	--	0.62	U	0.38	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	0.33	J	0.38	U
Isophorone	--	--	--	0.7	U	0.42	U
n-Nitrosodi-n-propylamine	--	--	--	0.77	U	0.47	U
Naphthalene	12	100	12	0.77	U	0.47	U
NDPA/DPA	--	--	--	0.62	U	0.38	U
Nitrobenzene	--	--	--	0.7	U	0.42	U
p-Chloro-m-cresol	--	--	--	0.77	U	0.47	U
Pentachlorophenol	0.8	2.4	0.8	0.62	U	0.38	U
Phenanthrene	100	100	100	0.86	J	0.28	U
Phenol	0.33	100	0.33	0.77	U	0.47	U
Pyrene	100	100	100	0.86	J	0.048	J

Table Notes:

--	No guidance value
mg/kg	Milligrams per kilogram
U	Not detected at the reported detection limit for the sample
J	Estimated Value. The target analyte concentration is below the quantitation limit (RL), but above the method detection limit (MDL)
0.77	Italics indicates the sample was not detected at the reported detection limit; however, the detection limit is above one or more of the soil cleanup objectives.

**Table 3 - Total Metals in Sediment
Environmental Compliance Services**

**Hampshire Country Club
1025 Cove Road
Mamaroneck, NY**

LOCATION	Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Residential Use Soil Cleanup Objectives	Part 375 Protection of Groundwater Soil Cleanup Objectives	GZ-01		GZ-02	
SAMPLING DATE				11/28/2022		11/28/2022	
LAB SAMPLE ID				L2266450-01		L2266450-02	
SAMPLE DEPTH				0-6"		0-6"	
				Results	Qual	Results	Qual
Total Metals (mg/kg)							
Aluminum, Total	--	--	--	8710		18400	
Antimony, Total	--	--	--	6.06	U	11	U
Arsenic, Total	13	16	16	2.92		15.7	
Barium, Total	350	350	820	71.3		164	
Beryllium, Total	7.2	14	47	0.82		1.11	
Cadmium, Total	2.5	2.5	7.5	0.289	J	2.19	U
Calcium, Total	--	--	--	4310		4600	
Chromium, Total*	30	36	--	19.1		23.8	
Cobalt, Total	--	--	--	7.33		5.07	
Copper, Total	50	270	1720	29.2		51.9	
Iron, Total	--	--	--	16600		20700	
Lead, Total	63	400	450	31		19.3	
Magnesium, Total	--	--	--	3490		3110	
Manganese, Total	1600	2000	2000	268		180	
Mercury, Total	0.18	0.81	0.73	0.124		0.179	U
Nickel, Total	30	140	130	15.5		18.1	
Potassium, Total	--	--	--	2460		820	
Selenium, Total	3.9	36	4	2.42	U	0.616	J
Silver, Total	2	36	8.3	0.606	U	1.1	U
Sodium, Total	--	--	--	155	J	477	
Thallium, Total	--	--	--	2.42	U	4.38	U
Vanadium, Total	--	--	--	25.4		20.2	
Zinc, Total	109	2200	2480	75.6		57.6	

Table Notes:

*	Comparisons made to the Trivalent Chromium Soil Cleanup Objectives
--	No guidance value
mg/kg	Milligrams per kilogram
U	Not detected at the reported detection limit for the sample
J	Estimated Value. The target analyte concentration is below the quantitation limit (RL), but above the method detection limit (MDL)
	Result exceeds the NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective

Table 4 - PCBs and Pesticides in Sediment
Environmental Compliance Services

Hampshire Country Club
1025 Cove Road
Mamaroneck, NY

LOCATION	Part 375 Unrestricted Use Soil Cleanup Objectives	Part 375 Residential Use Soil Cleanup Objectives	Part 375 Protection of Groundwater Soil Cleanup Objectives	GZ-01 11/28/2022 L2266450-01 0-6"	GZ-02 11/28/2022 L2266450-02 0-6"
SAMPLING DATE				Results	Qual
LAB SAMPLE ID				Results	Qual
SAMPLE DEPTH				Results	Qual
Polychlorinated Biphenyls (PCBs) by GC (mg/kg)					
Aroclor 1016	0.1	1	3.2	0.136 U	0.0914 U
Aroclor 1221	0.1	1	3.2	0.136 U	0.0914 U
Aroclor 1232	0.1	1	3.2	0.136 U	0.0914 U
Aroclor 1242	0.1	1	3.2	0.136 U	0.0914 U
Aroclor 1248	0.1	1	3.2	0.136 U	0.0914 U
Aroclor 1254	0.1	1	3.2	0.136 U	0.0914 U
Aroclor 1260	0.1	1	3.2	0.136 U	0.0914 U
Aroclor 1262	0.1	1	3.2	0.136 U	0.0914 U
Aroclor 1268	0.1	1	3.2	0.136 U	0.0914 U
PCBs, Total	0.1	1	3.2	0.136 U	0.0914 U
Organochlorine Pesticides by GC (mg/kg)					
4,4'-DDD	0.0033	2.6	14	0.0214	0.0379
4,4'-DDE	0.0033	1.8	17	0.0533	0.0745
4,4'-DDT	0.0033	1.7	136	0.00699 JIP	0.00454 U
Aldrin	0.005	0.019	0.19	0.00722 U	0.00454 U
Alpha-BHC	0.02	0.097	0.02	0.00301 U	0.00189 U
Beta-BHC	0.036	0.072	0.09	0.00722 U	0.00454 U
Chlordane	--	--	--	0.266 P	0.117 IP
cis-Chlordane	0.094	0.91	2.9	0.0116 IP	0.00469 JIP
Delta-BHC	0.04	100	0.25	0.00722 U	0.00454 U
Dieldrin	0.005	0.039	0.1	0.00452 U	0.00284 U
Endosulfan I	2.4	4.8	102	0.00722 U	0.00454 U
Endosulfan II	2.4	4.8	102	0.00722 U	0.00454 U
Endosulfan sulfate	2.4	4.8	1000	0.00301 U	0.00189 U
Endrin	0.014	2.2	0.06	0.00301 U	0.00189 U
Endrin aldehyde	--	--	--	0.00903 U	0.00568 U
Endrin ketone	--	--	--	0.00722 U	0.00454 U
Heptachlor	0.042	0.42	0.38	0.00361 U	0.00227 U
Heptachlor epoxide	--	--	--	0.0135 U	0.00852 U
Lindane	0.1	0.28	0.1	0.00301 U	0.00189 U
Methoxychlor	--	--	--	0.0135 U	0.00852 U
Toxaphene	--	--	--	0.135 U	0.0852 U
trans-Chlordane	--	--	--	0.022 IP	0.0219

Table Notes:


--	No guidance value
mg/kg	Milligrams per kilogram
U	Not detected at the reported detection limit for the sample
J	Estimated Value. The target analyte concentration is below the quantitation limit (RL), but above the method detection limit (MDL)
I	The lower value for the two columns has been reported due to obvious interference.
P	The RPD between the results for the two columns exceeds the method-specified criteria.
0.136	Italics indicates the sample was not detected at the reported detection limit; however, the detection limit is above one or more of the soil cleanup objectives.
	Result exceeds the NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective



FIGURES

© 2015 - GZA GeoEnvironmental, Inc. GZA-J:\Active 162400 to 162499\162403.10 - VHB Hampshire CC Geotechnical\Drawings\CAD\Figures.dwg [FIGURE 1] March 17, 2016 - 4:46pm kayla.newton



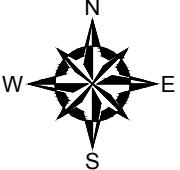


NEW YORK


QUADRANGLE LOCATION

SOURCE:

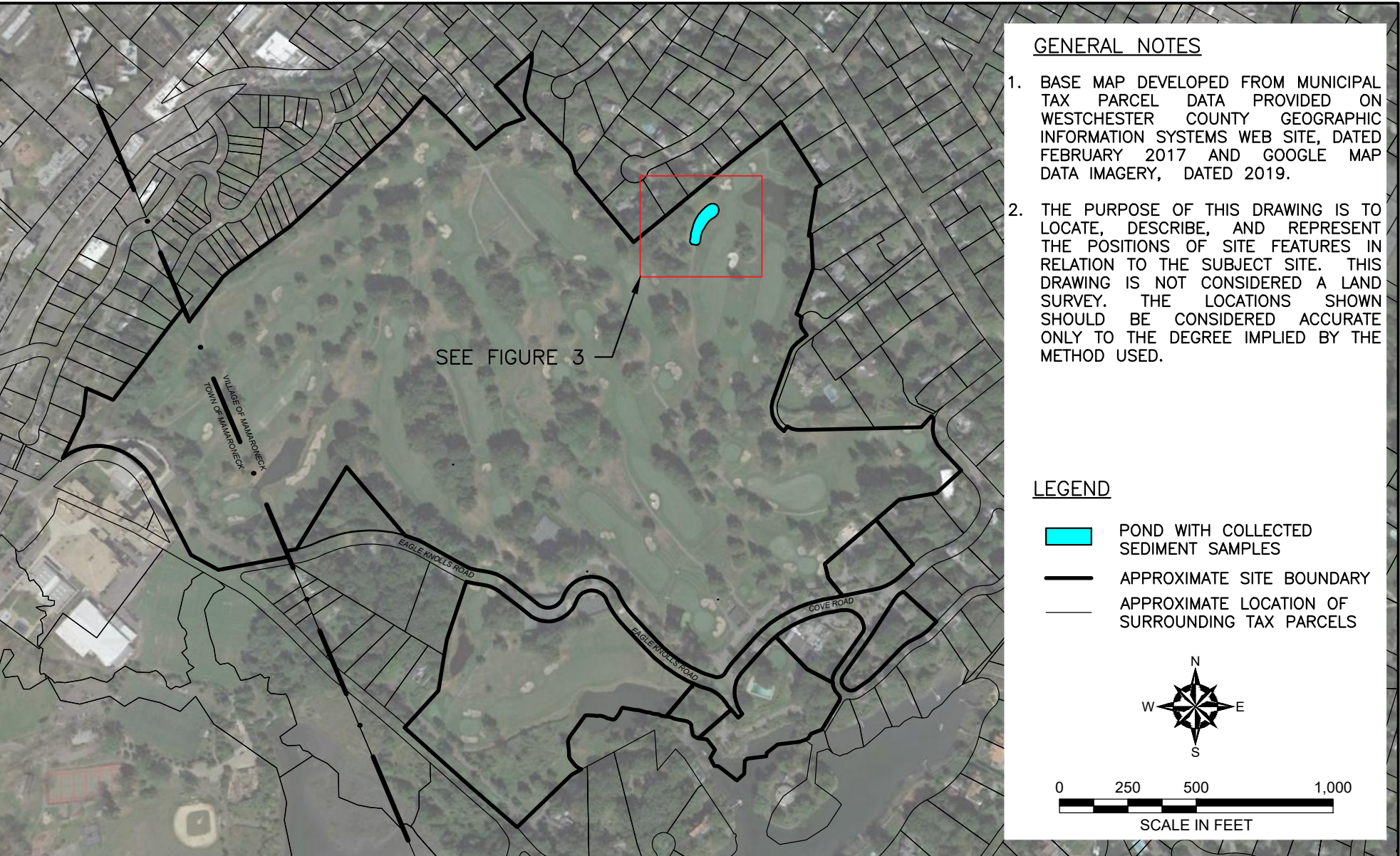
USGS TOPOGRAPHIC MAP: MAMARONECK, NY-CT (2013).
CONTOUR INTERVAL 10FT., NAVD-1988, ORIGINAL SCALE
1:24,000 (1"=2,000FT.)



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HAMPSHIRE COUNTRY CLUB 1025 COVE ROAD MAMARONECK, NY	PREPARED BY:  GZA GeoEnvironmental of NY Engineers and Scientists www.gza.com		PREPARED FOR: HAMPSHIRE COUNTRY CLUB 1025 COVE ROAD MAMARONECK, NY	
	PROJ MGR: MH	REVIEWED BY: MH	CHECKED BY: MH	FIGURE 1 SHEET NO. 01 OF 01
DESIGNED BY: KN	DRAWN BY: KN	SCALE: 1"=2000'		
DATE: JANUARY 2023		PROJECT NO. 41.0163094.00	REVISION NO. 0	

SITE LOCATION PLAN

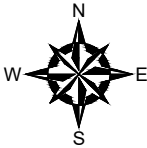


GENERAL NOTES

- 1. BASE MAP DEVELOPED FROM MUNICIPAL TAX PARCEL DATA PROVIDED ON WESTCHESTER COUNTY GEOGRAPHIC INFORMATION SYSTEMS WEB SITE, DATED FEBRUARY 2017 AND GOOGLE MAP DATA IMAGERY, DATED 2019.
- 2. THE PURPOSE OF THIS DRAWING IS TO LOCATE, DESCRIBE, AND REPRESENT THE POSITIONS OF SITE FEATURES IN RELATION TO THE SUBJECT SITE. THIS DRAWING IS NOT CONSIDERED A LAND SURVEY. THE LOCATIONS SHOWN SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.

LEGEND


- POND WITH COLLECTED SEDIMENT SAMPLES
- APPROXIMATE SITE BOUNDARY
- APPROXIMATE LOCATION OF SURROUNDING TAX PARCELS

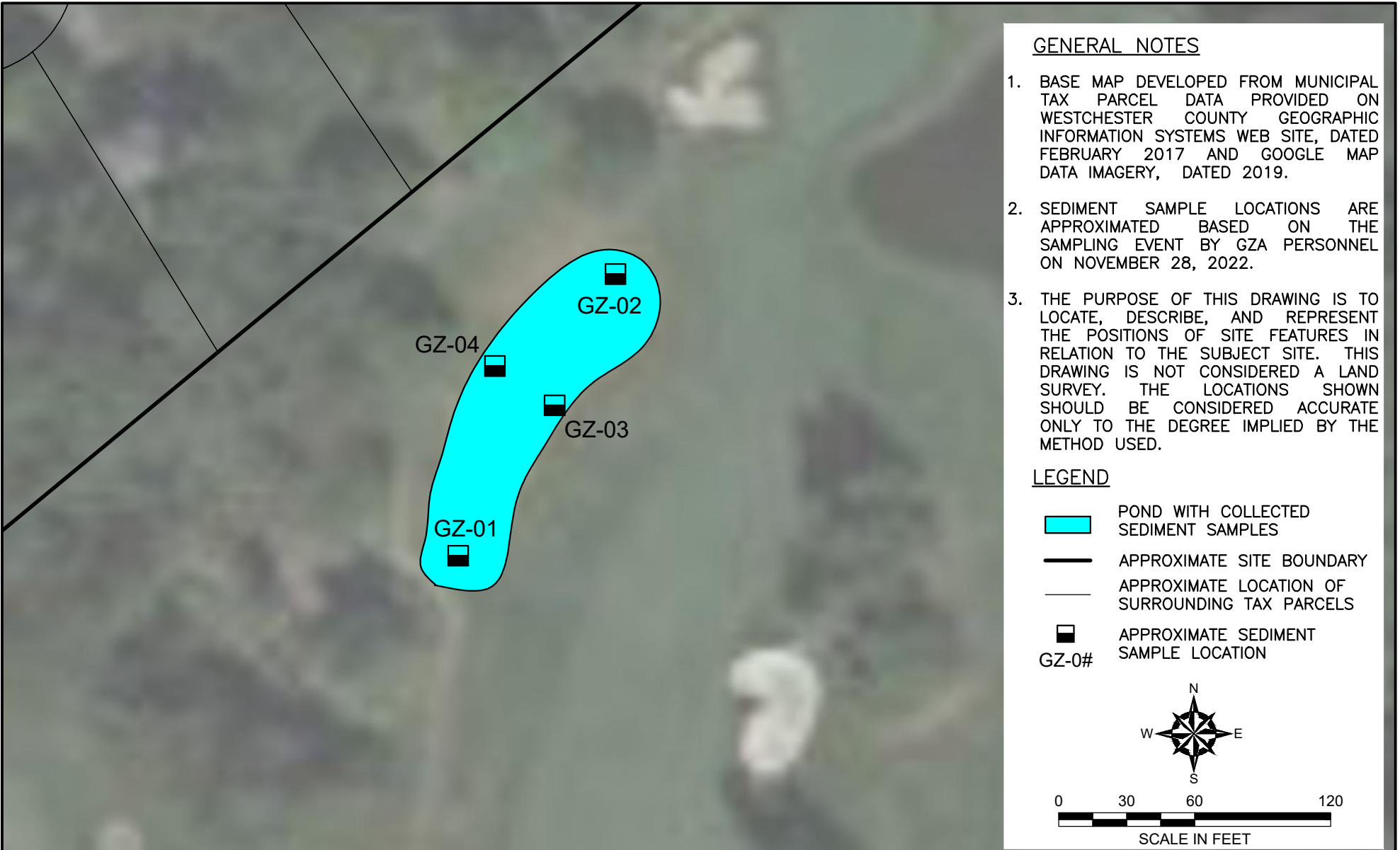


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HAMPSHIRE COUNTRY CLUB
1025 COVE ROADWEST
MAMARONECK, NY 10543

SITE PLAN

PREPARED BY:  GZA GeoEnvironmental of NY Engineers and Scientists www.gza.com		PREPARED FOR: HAMPSHIRE COUNTRY CLUB	
PROJ MGR: MH	REVIEWED BY: MH	CHECKED BY: SK	FIGURE 2 SHEET NO.
DESIGNED BY: MH	DRAWN BY: JB	SCALE: 1" = 500'	
DATE: JANUARY 2023	PROJECT NO. 41.0163094.00	REVISION NO. -	



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ATTACHMENT A – LIMITATIONS



USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).
3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.
4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

SUBSURFACE CONDITIONS

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.
6. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

COMPLIANCE WITH CODES AND REGULATIONS

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.



SCREENING AND ANALYTICAL TESTING

8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.
9. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.
10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

INTERPRETATION OF DATA

11. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

ADDITIONAL INFORMATION

12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

ADDITIONAL SERVICES

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.



ATTACHMENT B – SITE PHOTOGRAPHS




Client Name: Hampshire Country Club		Site Direction: Hampshire Country Club, Mamaroneck, New York		Project No.: 41.0163094.00
Photo No.: 1	Date: 11/28/22			
Direction Photo Taken: Southeast				
Description: Pond at the Hampshire Country Club				

Photo Nos.: 2	Date: 11/28/22	
Direction Photo Taken: N/A		
Description: Sediment collected with hand auger from GZ-01.		



Client Name: Hampshire Country Club		Site Direction: Hampshire Country Club, Mamaroneck, New York	Project No.: 41.0163094.00
Photo No.: 3	Date: 11/28/22		
Direction Photo Taken: North			
Description: Pond at the Hampshire Country Club			

Photo Nos.: 4	Date: 11/28/22	
Direction Photo Taken: N/A		
Description: Sediment collected with hand auger from GZ-03.		



ATTACHMENT C – LABORATORY ANALYTICAL REPORT



ANALYTICAL REPORT

Lab Number:	L2266450
Client:	GZA GeoEnvironmental, Inc. 104 West 29th Street, 10th Floor New York, NY 10001
ATTN:	Mark Hutson
Phone:	(212) 594-8140
Project Name:	HAMPSHIRE COUNTRY CLUB
Project Number:	41.0163094.00
Report Date:	12/12/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2266450-01	GZ-01	SOIL	HAMPSHIRE COUNTRY CLUB MAMARONECK, NY	11/28/22 09:20	11/28/22
L2266450-02	GZ-02	SOIL	HAMPSHIRE COUNTRY CLUB MAMARONECK, NY	11/28/22 11:40	11/28/22
L2266450-03	GZ-03	SOIL	HAMPSHIRE COUNTRY CLUB MAMARONECK, NY	11/28/22 09:30	11/28/22
L2266450-04	GZ-04	SOIL	HAMPSHIRE COUNTRY CLUB MAMARONECK, NY	11/28/22 11:50	11/28/22

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L2266450-01: The collection date and time on the chain of custody was 28-NOV-22 11:20; however, the collection date/time on the container label was 28-NOV-22 09:20. At the client's request, the collection date/time is reported as 28-NOV-22 09:20.

L2266450-03: The collection date and time on the chain of custody was 28-NOV-22 11:30; however, the collection date/time on the container label was 28-NOV-22 09:30. At the client's request, the collection date/time is reported as 28-NOV-22 09:30.

Semivolatile Organics

L2266450-01: The sample has elevated detection limits due to the limited sample volume utilized during extraction, as required by the sample matrix.

The WG1716916-2/-3 LCS/LCSD recoveries, associated with L2266450-01 and -02, are below the acceptance criteria for benzoic acid (0%/0%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported.

PCBs

L2266450-01: The sample has elevated detection limits due to the limited sample volume utilized during extraction, as required by the sample matrix.

Pesticides

L2266450-01: The sample has elevated detection limits due to the limited sample volume utilized during extraction, as required by the sample matrix.

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Case Narrative (continued)

Total Metals

L2266450-01 and -02: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Caitlin Walukevich

Title: Technical Director/Representative

Date: 12/12/22

ORGANICS

VOLATILES

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS**

Lab ID: L2266450-01

Date Collected: 11/28/22 09:20

Client ID: GZ-01

Date Received: 11/28/22

Sample Location: HAMPSHIRE COUNTRY CLUB MAMARONECK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260D

Analytical Date: 12/01/22 13:59

Analyst: AJK

Percent Solids: 64%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.0	2.8	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.28	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.32	1
Tetrachloroethene	ND		ug/kg	0.60	0.24	1
Chlorobenzene	0.19	J	ug/kg	0.60	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.8	0.84	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	0.60	0.20	1
Bromodichloromethane	ND		ug/kg	0.60	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.33	1
cis-1,3-Dichloropropene	ND		ug/kg	0.60	0.19	1
1,3-Dichloropropene, Total	ND		ug/kg	0.60	0.19	1
1,1-Dichloropropene	ND		ug/kg	0.60	0.19	1
Bromoform	ND		ug/kg	4.8	0.30	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.60	0.20	1
Benzene	ND		ug/kg	0.60	0.20	1
Toluene	ND		ug/kg	1.2	0.65	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.8	1.1	1
Bromomethane	ND		ug/kg	2.4	0.70	1
Vinyl chloride	ND		ug/kg	1.2	0.40	1
Chloroethane	ND		ug/kg	2.4	0.54	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-01**Date Collected:** 11/28/22 09:20**Client ID:** GZ-01**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.60	0.16	1
1,2-Dichlorobenzene	0.28	J	ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	0.26	J	ug/kg	2.4	0.18	1
1,4-Dichlorobenzene	0.35	J	ug/kg	2.4	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.67	1
o-Xylene	ND		ug/kg	1.2	0.35	1
Xylenes, Total	ND		ug/kg	1.2	0.35	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.4	0.29	1
Styrene	0.35	J	ug/kg	1.2	0.24	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	74		ug/kg	12	5.8	1
Carbon disulfide	ND		ug/kg	12	5.5	1
2-Butanone	18		ug/kg	12	2.7	1
Vinyl acetate	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.25	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.34	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.60	0.16	1
Bromobenzene	0.17	J	ug/kg	2.4	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.18	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.23	1
p-Chlorotoluene	0.19	J	ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	1.2	1
Hexachlorobutadiene	0.49	J	ug/kg	4.8	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	1.1	J	ug/kg	4.8	0.78	1
Acrylonitrile	ND		ug/kg	4.8	1.4	1

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-01**Date Collected:** 11/28/22 09:20**Client ID:** GZ-01**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	1.0	J	ug/kg	2.4	0.39	1
1,2,4-Trichlorobenzene	0.81	J	ug/kg	2.4	0.33	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.40	1
1,4-Dioxane	ND		ug/kg	96	42.	1
p-Diethylbenzene	ND		ug/kg	2.4	0.21	1
p-Ethyltoluene	ND		ug/kg	2.4	0.46	1
1,2,4,5-Tetramethylbenzene	0.29	J	ug/kg	2.4	0.23	1
Ethyl ether	ND		ug/kg	2.4	0.41	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.0	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	96		70-130

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS**

Lab ID: L2266450-02

Date Collected: 11/28/22 11:40

Client ID: GZ-02

Date Received: 11/28/22

Sample Location: HAMPSHIRE COUNTRY CLUB MAMARONECK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260D

Analytical Date: 12/01/22 14:19

Analyst: AJK

Percent Solids: 35%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	18	8.4	1
1,1-Dichloroethane	ND		ug/kg	3.7	0.54	1
Chloroform	ND		ug/kg	5.5	0.52	1
Carbon tetrachloride	ND		ug/kg	3.7	0.85	1
1,2-Dichloropropane	ND		ug/kg	3.7	0.46	1
Dibromochloromethane	ND		ug/kg	3.7	0.52	1
1,1,2-Trichloroethane	ND		ug/kg	3.7	0.98	1
Tetrachloroethene	ND		ug/kg	1.8	0.72	1
Chlorobenzene	ND		ug/kg	1.8	0.47	1
Trichlorofluoromethane	ND		ug/kg	15	2.6	1
1,2-Dichloroethane	ND		ug/kg	3.7	0.95	1
1,1,1-Trichloroethane	ND		ug/kg	1.8	0.62	1
Bromodichloromethane	ND		ug/kg	1.8	0.40	1
trans-1,3-Dichloropropene	ND		ug/kg	3.7	1.0	1
cis-1,3-Dichloropropene	ND		ug/kg	1.8	0.58	1
1,3-Dichloropropene, Total	ND		ug/kg	1.8	0.58	1
1,1-Dichloropropene	ND		ug/kg	1.8	0.59	1
Bromoform	ND		ug/kg	15	0.91	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.8	0.61	1
Benzene	ND		ug/kg	1.8	0.61	1
Toluene	ND		ug/kg	3.7	2.0	1
Ethylbenzene	ND		ug/kg	3.7	0.52	1
Chloromethane	ND		ug/kg	15	3.4	1
Bromomethane	ND		ug/kg	7.4	2.1	1
Vinyl chloride	ND		ug/kg	3.7	1.2	1
Chloroethane	ND		ug/kg	7.4	1.7	1
1,1-Dichloroethene	ND		ug/kg	3.7	0.88	1
trans-1,2-Dichloroethene	ND		ug/kg	5.5	0.50	1

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-02**Date Collected:** 11/28/22 11:40**Client ID:** GZ-02**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	1.8	0.50	1
1,2-Dichlorobenzene	ND		ug/kg	7.4	0.53	1
1,3-Dichlorobenzene	ND		ug/kg	7.4	0.55	1
1,4-Dichlorobenzene	1.0	J	ug/kg	7.4	0.63	1
Methyl tert butyl ether	ND		ug/kg	7.4	0.74	1
p/m-Xylene	ND		ug/kg	7.4	2.1	1
o-Xylene	ND		ug/kg	3.7	1.1	1
Xylenes, Total	ND		ug/kg	3.7	1.1	1
cis-1,2-Dichloroethene	ND		ug/kg	3.7	0.64	1
1,2-Dichloroethene, Total	ND		ug/kg	3.7	0.50	1
Dibromomethane	ND		ug/kg	7.4	0.88	1
Styrene	ND		ug/kg	3.7	0.72	1
Dichlorodifluoromethane	ND		ug/kg	37	3.4	1
Acetone	410		ug/kg	37	18.	1
Carbon disulfide	ND		ug/kg	37	17.	1
2-Butanone	73		ug/kg	37	8.2	1
Vinyl acetate	ND		ug/kg	37	7.9	1
4-Methyl-2-pentanone	ND		ug/kg	37	4.7	1
1,2,3-Trichloropropane	ND		ug/kg	7.4	0.47	1
2-Hexanone	ND		ug/kg	37	4.4	1
Bromochloromethane	ND		ug/kg	7.4	0.76	1
2,2-Dichloropropane	ND		ug/kg	7.4	0.74	1
1,2-Dibromoethane	ND		ug/kg	3.7	1.0	1
1,3-Dichloropropane	ND		ug/kg	7.4	0.62	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.8	0.49	1
Bromobenzene	ND		ug/kg	7.4	0.54	1
n-Butylbenzene	ND		ug/kg	3.7	0.62	1
sec-Butylbenzene	ND		ug/kg	3.7	0.54	1
tert-Butylbenzene	ND		ug/kg	7.4	0.44	1
o-Chlorotoluene	ND		ug/kg	7.4	0.70	1
p-Chlorotoluene	ND		ug/kg	7.4	0.40	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	11	3.7	1
Hexachlorobutadiene	ND		ug/kg	15	0.62	1
Isopropylbenzene	ND		ug/kg	3.7	0.40	1
p-Isopropyltoluene	ND		ug/kg	3.7	0.40	1
Naphthalene	ND		ug/kg	15	2.4	1
Acrylonitrile	ND		ug/kg	15	4.2	1

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-02**Date Collected:** 11/28/22 11:40**Client ID:** GZ-02**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	3.7	0.63	1
1,2,3-Trichlorobenzene	ND		ug/kg	7.4	1.2	1
1,2,4-Trichlorobenzene	ND		ug/kg	7.4	1.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	7.4	0.71	1
1,2,4-Trimethylbenzene	ND		ug/kg	7.4	1.2	1
1,4-Dioxane	ND		ug/kg	300	130	1
p-Diethylbenzene	ND		ug/kg	7.4	0.65	1
p-Ethyltoluene	ND		ug/kg	7.4	1.4	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	7.4	0.70	1
Ethyl ether	ND		ug/kg	7.4	1.2	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	18	5.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	95		70-130

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-03**Date Collected:** 11/28/22 09:30**Client ID:** GZ-03**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil**Analytical Method:** 1,8260D**Analytical Date:** 12/01/22 14:38**Analyst:** AJK**Percent Solids:** 77%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.3	2.0	1
1,1-Dichloroethane	ND		ug/kg	0.87	0.13	1
Chloroform	ND		ug/kg	1.3	0.12	1
Carbon tetrachloride	ND		ug/kg	0.87	0.20	1
1,2-Dichloropropane	ND		ug/kg	0.87	0.11	1
Dibromochloromethane	ND		ug/kg	0.87	0.12	1
1,1,2-Trichloroethane	ND		ug/kg	0.87	0.23	1
Tetrachloroethene	ND		ug/kg	0.43	0.17	1
Chlorobenzene	ND		ug/kg	0.43	0.11	1
Trichlorofluoromethane	ND		ug/kg	3.5	0.60	1
1,2-Dichloroethane	ND		ug/kg	0.87	0.22	1
1,1,1-Trichloroethane	ND		ug/kg	0.43	0.14	1
Bromodichloromethane	ND		ug/kg	0.43	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.87	0.24	1
cis-1,3-Dichloropropene	ND		ug/kg	0.43	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	0.43	0.14	1
1,1-Dichloropropene	ND		ug/kg	0.43	0.14	1
Bromoform	ND		ug/kg	3.5	0.21	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.43	0.14	1
Benzene	ND		ug/kg	0.43	0.14	1
Toluene	ND		ug/kg	0.87	0.47	1
Ethylbenzene	ND		ug/kg	0.87	0.12	1
Chloromethane	ND		ug/kg	3.5	0.81	1
Bromomethane	ND		ug/kg	1.7	0.50	1
Vinyl chloride	ND		ug/kg	0.87	0.29	1
Chloroethane	ND		ug/kg	1.7	0.39	1
1,1-Dichloroethene	ND		ug/kg	0.87	0.21	1
trans-1,2-Dichloroethene	ND		ug/kg	1.3	0.12	1

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-03**Date Collected:** 11/28/22 09:30**Client ID:** GZ-03**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.43	0.12	1
1,2-Dichlorobenzene	ND		ug/kg	1.7	0.12	1
1,3-Dichlorobenzene	ND		ug/kg	1.7	0.13	1
1,4-Dichlorobenzene	ND		ug/kg	1.7	0.15	1
Methyl tert butyl ether	ND		ug/kg	1.7	0.17	1
p/m-Xylene	ND		ug/kg	1.7	0.49	1
o-Xylene	ND		ug/kg	0.87	0.25	1
Xylenes, Total	ND		ug/kg	0.87	0.25	1
cis-1,2-Dichloroethene	ND		ug/kg	0.87	0.15	1
1,2-Dichloroethene, Total	ND		ug/kg	0.87	0.12	1
Dibromomethane	ND		ug/kg	1.7	0.21	1
Styrene	ND		ug/kg	0.87	0.17	1
Dichlorodifluoromethane	ND		ug/kg	8.7	0.80	1
Acetone	16		ug/kg	8.7	4.2	1
Carbon disulfide	ND		ug/kg	8.7	4.0	1
2-Butanone	ND		ug/kg	8.7	1.9	1
Vinyl acetate	ND		ug/kg	8.7	1.9	1
4-Methyl-2-pentanone	ND		ug/kg	8.7	1.1	1
1,2,3-Trichloropropane	ND		ug/kg	1.7	0.11	1
2-Hexanone	ND		ug/kg	8.7	1.0	1
Bromochloromethane	ND		ug/kg	1.7	0.18	1
2,2-Dichloropropane	ND		ug/kg	1.7	0.18	1
1,2-Dibromoethane	ND		ug/kg	0.87	0.24	1
1,3-Dichloropropane	ND		ug/kg	1.7	0.14	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.43	0.11	1
Bromobenzene	ND		ug/kg	1.7	0.13	1
n-Butylbenzene	ND		ug/kg	0.87	0.14	1
sec-Butylbenzene	ND		ug/kg	0.87	0.13	1
tert-Butylbenzene	ND		ug/kg	1.7	0.10	1
o-Chlorotoluene	ND		ug/kg	1.7	0.17	1
p-Chlorotoluene	ND		ug/kg	1.7	0.09	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.6	0.87	1
Hexachlorobutadiene	ND		ug/kg	3.5	0.15	1
Isopropylbenzene	ND		ug/kg	0.87	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.87	0.10	1
Naphthalene	ND		ug/kg	3.5	0.56	1
Acrylonitrile	ND		ug/kg	3.5	1.0	1

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-03**Date Collected:** 11/28/22 09:30**Client ID:** GZ-03**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.87	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.7	0.28	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.7	0.24	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.7	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.7	0.29	1
1,4-Dioxane	ND		ug/kg	70	30.	1
p-Diethylbenzene	ND		ug/kg	1.7	0.15	1
p-Ethyltoluene	ND		ug/kg	1.7	0.33	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.7	0.17	1
Ethyl ether	ND		ug/kg	1.7	0.30	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.3	1.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	95		70-130

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS**

Lab ID: L2266450-04

Date Collected: 11/28/22 11:50

Client ID: GZ-04

Date Received: 11/28/22

Sample Location: HAMPSHIRE COUNTRY CLUB MAMARONECK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260D

Analytical Date: 12/01/22 14:58

Analyst: AJK

Percent Solids: 72%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	7.1	3.2	1
1,1-Dichloroethane	ND		ug/kg	1.4	0.21	1
Chloroform	ND		ug/kg	2.1	0.20	1
Carbon tetrachloride	ND		ug/kg	1.4	0.33	1
1,2-Dichloropropane	ND		ug/kg	1.4	0.18	1
Dibromochloromethane	ND		ug/kg	1.4	0.20	1
1,1,2-Trichloroethane	ND		ug/kg	1.4	0.38	1
Tetrachloroethene	ND		ug/kg	0.71	0.28	1
Chlorobenzene	ND		ug/kg	0.71	0.18	1
Trichlorofluoromethane	ND		ug/kg	5.7	0.99	1
1,2-Dichloroethane	ND		ug/kg	1.4	0.36	1
1,1,1-Trichloroethane	ND		ug/kg	0.71	0.24	1
Bromodichloromethane	ND		ug/kg	0.71	0.16	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	0.39	1
cis-1,3-Dichloropropene	ND		ug/kg	0.71	0.22	1
1,3-Dichloropropene, Total	ND		ug/kg	0.71	0.22	1
1,1-Dichloropropene	ND		ug/kg	0.71	0.23	1
Bromoform	ND		ug/kg	5.7	0.35	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.71	0.24	1
Benzene	ND		ug/kg	0.71	0.24	1
Toluene	ND		ug/kg	1.4	0.77	1
Ethylbenzene	ND		ug/kg	1.4	0.20	1
Chloromethane	ND		ug/kg	5.7	1.3	1
Bromomethane	ND		ug/kg	2.8	0.83	1
Vinyl chloride	ND		ug/kg	1.4	0.48	1
Chloroethane	ND		ug/kg	2.8	0.64	1
1,1-Dichloroethene	ND		ug/kg	1.4	0.34	1
trans-1,2-Dichloroethene	ND		ug/kg	2.1	0.19	1

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-04**Date Collected:** 11/28/22 11:50**Client ID:** GZ-04**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.71	0.19	1
1,2-Dichlorobenzene	ND		ug/kg	2.8	0.20	1
1,3-Dichlorobenzene	ND		ug/kg	2.8	0.21	1
1,4-Dichlorobenzene	ND		ug/kg	2.8	0.24	1
Methyl tert butyl ether	ND		ug/kg	2.8	0.29	1
p/m-Xylene	ND		ug/kg	2.8	0.80	1
o-Xylene	ND		ug/kg	1.4	0.41	1
Xylenes, Total	ND		ug/kg	1.4	0.41	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.25	1
1,2-Dichloroethene, Total	ND		ug/kg	1.4	0.19	1
Dibromomethane	ND		ug/kg	2.8	0.34	1
Styrene	ND		ug/kg	1.4	0.28	1
Dichlorodifluoromethane	ND		ug/kg	14	1.3	1
Acetone	96		ug/kg	14	6.8	1
Carbon disulfide	ND		ug/kg	14	6.5	1
2-Butanone	9.2	J	ug/kg	14	3.2	1
Vinyl acetate	ND		ug/kg	14	3.0	1
4-Methyl-2-pentanone	ND		ug/kg	14	1.8	1
1,2,3-Trichloropropane	ND		ug/kg	2.8	0.18	1
2-Hexanone	ND		ug/kg	14	1.7	1
Bromochloromethane	ND		ug/kg	2.8	0.29	1
2,2-Dichloropropane	ND		ug/kg	2.8	0.29	1
1,2-Dibromoethane	ND		ug/kg	1.4	0.40	1
1,3-Dichloropropane	ND		ug/kg	2.8	0.24	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.71	0.19	1
Bromobenzene	ND		ug/kg	2.8	0.21	1
n-Butylbenzene	ND		ug/kg	1.4	0.24	1
sec-Butylbenzene	ND		ug/kg	1.4	0.21	1
tert-Butylbenzene	ND		ug/kg	2.8	0.17	1
o-Chlorotoluene	ND		ug/kg	2.8	0.27	1
p-Chlorotoluene	ND		ug/kg	2.8	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.3	1.4	1
Hexachlorobutadiene	ND		ug/kg	5.7	0.24	1
Isopropylbenzene	ND		ug/kg	1.4	0.16	1
p-Isopropyltoluene	ND		ug/kg	1.4	0.16	1
Naphthalene	ND		ug/kg	5.7	0.92	1
Acrylonitrile	ND		ug/kg	5.7	1.6	1

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-04**Date Collected:** 11/28/22 11:50**Client ID:** GZ-04**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.4	0.24	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.8	0.46	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.8	0.39	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.8	0.27	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.8	0.48	1
1,4-Dioxane	ND		ug/kg	110	50.	1
p-Diethylbenzene	ND		ug/kg	2.8	0.25	1
p-Ethyltoluene	ND		ug/kg	2.8	0.55	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.8	0.27	1
Ethyl ether	ND		ug/kg	2.8	0.48	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.1	2.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	98		70-130

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
 Analytical Date: 12/01/22 10:01
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-04 Batch: WG1718168-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
 Analytical Date: 12/01/22 10:01
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-04 Batch: WG1718168-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/01/22 10:01
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-04 Batch: WG1718168-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	94		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB

Project Number: 41.0163094.00

Lab Number: L2266450

Report Date: 12/12/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-04 Batch: WG1718168-3 WG1718168-4								
Methylene chloride	97		102		70-130	5		30
1,1-Dichloroethane	106		108		70-130	2		30
Chloroform	99		97		70-130	2		30
Carbon tetrachloride	97		102		70-130	5		30
1,2-Dichloropropane	108		109		70-130	1		30
Dibromochloromethane	103		108		70-130	5		30
1,1,2-Trichloroethane	99		103		70-130	4		30
Tetrachloroethene	113		122		70-130	8		30
Chlorobenzene	106		107		70-130	1		30
Trichlorofluoromethane	104		101		70-139	3		30
1,2-Dichloroethane	95		96		70-130	1		30
1,1,1-Trichloroethane	96		97		70-130	1		30
Bromodichloromethane	92		93		70-130	1		30
trans-1,3-Dichloropropene	100		104		70-130	4		30
cis-1,3-Dichloropropene	103		105		70-130	2		30
1,1-Dichloropropene	107		111		70-130	4		30
Bromoform	101		97		70-130	4		30
1,1,2,2-Tetrachloroethane	101		96		70-130	5		30
Benzene	107		108		70-130	1		30
Toluene	101		106		70-130	5		30
Ethylbenzene	105		108		70-130	3		30
Chloromethane	104		106		52-130	2		30
Bromomethane	91		88		57-147	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB

Project Number: 41.0163094.00

Lab Number: L2266450

Report Date: 12/12/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-04 Batch: WG1718168-3 WG1718168-4								
Vinyl chloride	106		106		67-130	0		30
Chloroethane	102		105		50-151	3		30
1,1-Dichloroethene	106		108		65-135	2		30
trans-1,2-Dichloroethene	100		103		70-130	3		30
Trichloroethene	107		109		70-130	2		30
1,2-Dichlorobenzene	104		103		70-130	1		30
1,3-Dichlorobenzene	107		105		70-130	2		30
1,4-Dichlorobenzene	106		104		70-130	2		30
Methyl tert butyl ether	94		95		66-130	1		30
p/m-Xylene	104		108		70-130	4		30
o-Xylene	104		106		70-130	2		30
cis-1,2-Dichloroethene	97		97		70-130	0		30
Dibromomethane	100		101		70-130	1		30
Styrene	104		107		70-130	3		30
Dichlorodifluoromethane	77		76		30-146	1		30
Acetone	110		105		54-140	5		30
Carbon disulfide	100		100		59-130	0		30
2-Butanone	102		105		70-130	3		30
Vinyl acetate	91		90		70-130	1		30
4-Methyl-2-pentanone	89		94		70-130	5		30
1,2,3-Trichloropropane	105		102		68-130	3		30
2-Hexanone	90		93		70-130	3		30
Bromochloromethane	102		103		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB

Project Number: 41.0163094.00

Lab Number: L2266450

Report Date: 12/12/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-04 Batch: WG1718168-3 WG1718168-4								
2,2-Dichloropropane	99		105		70-130	6		30
1,2-Dibromoethane	106		109		70-130	3		30
1,3-Dichloropropane	106		109		69-130	3		30
1,1,1,2-Tetrachloroethane	106		109		70-130	3		30
Bromobenzene	102		99		70-130	3		30
n-Butylbenzene	111		109		70-130	2		30
sec-Butylbenzene	108		105		70-130	3		30
tert-Butylbenzene	104		103		70-130	1		30
o-Chlorotoluene	103		101		70-130	2		30
p-Chlorotoluene	104		101		70-130	3		30
1,2-Dibromo-3-chloropropane	102		100		68-130	2		30
Hexachlorobutadiene	107		103		67-130	4		30
Isopropylbenzene	105		102		70-130	3		30
p-Isopropyltoluene	106		106		70-130	0		30
Naphthalene	98		96		70-130	2		30
Acrylonitrile	101		104		70-130	3		30
n-Propylbenzene	108		105		70-130	3		30
1,2,3-Trichlorobenzene	105		102		70-130	3		30
1,2,4-Trichlorobenzene	107		104		70-130	3		30
1,3,5-Trimethylbenzene	106		103		70-130	3		30
1,2,4-Trimethylbenzene	103		102		70-130	1		30
1,4-Dioxane	111		115		65-136	4		30
p-Diethylbenzene	103		103		70-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB

Lab Number: L2266450

Project Number: 41.0163094.00

Report Date: 12/12/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-04 Batch: WG1718168-3 WG1718168-4								
p-Ethyltoluene	104		102		70-130	2		30
1,2,4,5-Tetramethylbenzene	104		102		70-130	2		30
Ethyl ether	98		98		67-130	0		30
trans-1,4-Dichloro-2-butene	91		89		70-130	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	89		90		70-130
Toluene-d8	95		99		70-130
4-Bromofluorobenzene	93		90		70-130
Dibromofluoromethane	91		88		70-130

SEMIVOLATILES

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS**

Lab ID: L2266450-01

Date Collected: 11/28/22 09:20

Client ID: GZ-01

Date Received: 11/28/22

Sample Location: HAMPSHIRE COUNTRY CLUB MAMARONECK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8270E

Extraction Date: 11/29/22 18:15

Analytical Date: 11/30/22 13:54

Analyst: EK

Percent Solids: 64%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	620	80.	1
1,2,4-Trichlorobenzene	ND		ug/kg	770	88.	1
Hexachlorobenzene	ND		ug/kg	460	87.	1
Bis(2-chloroethyl)ether	ND		ug/kg	700	100	1
2-Chloronaphthalene	ND		ug/kg	770	77.	1
1,2-Dichlorobenzene	ND		ug/kg	770	140	1
1,3-Dichlorobenzene	ND		ug/kg	770	130	1
1,4-Dichlorobenzene	ND		ug/kg	770	140	1
3,3'-Dichlorobenzidine	ND		ug/kg	770	200	1
2,4-Dinitrotoluene	ND		ug/kg	770	150	1
2,6-Dinitrotoluene	ND		ug/kg	770	130	1
Fluoranthene	1100		ug/kg	460	89.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	770	83.	1
4-Bromophenyl phenyl ether	ND		ug/kg	770	120	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	930	130	1
Bis(2-chloroethoxy)methane	ND		ug/kg	840	78.	1
Hexachlorobutadiene	ND		ug/kg	770	110	1
Hexachlorocyclopentadiene	ND		ug/kg	2200	700	1
Hexachloroethane	ND		ug/kg	620	120	1
Isophorone	ND		ug/kg	700	100	1
Naphthalene	ND		ug/kg	770	94.	1
Nitrobenzene	ND		ug/kg	700	110	1
NDPA/DPA	ND		ug/kg	620	88.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	770	120	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	770	270	1
Butyl benzyl phthalate	ND		ug/kg	770	190	1
Di-n-butylphthalate	ND		ug/kg	770	150	1
Di-n-octylphthalate	ND		ug/kg	770	260	1

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-01**Date Collected:** 11/28/22 09:20**Client ID:** GZ-01**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	770	72.	1
Dimethyl phthalate	ND		ug/kg	770	160	1
Benzo(a)anthracene	520		ug/kg	460	87.	1
Benzo(a)pyrene	500	J	ug/kg	620	190	1
Benzo(b)fluoranthene	600		ug/kg	460	130	1
Benzo(k)fluoranthene	210	J	ug/kg	460	120	1
Chrysene	460		ug/kg	460	80.	1
Acenaphthylene	ND		ug/kg	620	120	1
Anthracene	240	J	ug/kg	460	150	1
Benzo(ghi)perylene	290	J	ug/kg	620	91.	1
Fluorene	97	J	ug/kg	770	75.	1
Phenanthrene	860		ug/kg	460	94.	1
Dibenzo(a,h)anthracene	ND		ug/kg	460	89.	1
Indeno(1,2,3-cd)pyrene	330	J	ug/kg	620	110	1
Pyrene	860		ug/kg	460	77.	1
Biphenyl	ND		ug/kg	1800	100	1
4-Chloroaniline	ND		ug/kg	770	140	1
2-Nitroaniline	ND		ug/kg	770	150	1
3-Nitroaniline	ND		ug/kg	770	140	1
4-Nitroaniline	ND		ug/kg	770	320	1
Dibenzofuran	95	J	ug/kg	770	73.	1
2-Methylnaphthalene	ND		ug/kg	930	93.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	770	81.	1
Acetophenone	ND		ug/kg	770	96.	1
2,4,6-Trichlorophenol	ND		ug/kg	460	150	1
p-Chloro-m-cresol	ND		ug/kg	770	120	1
2-Chlorophenol	ND		ug/kg	770	91.	1
2,4-Dichlorophenol	ND		ug/kg	700	120	1
2,4-Dimethylphenol	ND		ug/kg	770	260	1
2-Nitrophenol	ND		ug/kg	1700	290	1
4-Nitrophenol	ND		ug/kg	1100	320	1
2,4-Dinitrophenol	ND		ug/kg	3700	360	1
4,6-Dinitro-o-cresol	ND		ug/kg	2000	370	1
Pentachlorophenol	ND		ug/kg	620	170	1
Phenol	ND		ug/kg	770	120	1
2-Methylphenol	ND		ug/kg	770	120	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	1100	120	1

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-01**Date Collected:** 11/28/22 09:20**Client ID:** GZ-01**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	770	150	1
Benzoic Acid	ND		ug/kg	2500	780	1
Benzyl Alcohol	ND		ug/kg	770	240	1
Carbazole	ND		ug/kg	770	75.	1
1,4-Dioxane	ND		ug/kg	120	36.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	93		25-120
Phenol-d6	89		10-120
Nitrobenzene-d5	88		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	64		10-136
4-Terphenyl-d14	81		18-120

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-02**Date Collected:** 11/28/22 11:40**Client ID:** GZ-02**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil**Extraction Method:** EPA 3546**Analytical Method:** 1,8270E**Extraction Date:** 11/29/22 18:15**Analytical Date:** 11/30/22 14:42**Analyst:** EK**Percent Solids:** 35%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	380	49.	1
1,2,4-Trichlorobenzene	ND		ug/kg	470	54.	1
Hexachlorobenzene	ND		ug/kg	280	53.	1
Bis(2-chloroethyl)ether	ND		ug/kg	420	64.	1
2-Chloronaphthalene	ND		ug/kg	470	47.	1
1,2-Dichlorobenzene	ND		ug/kg	470	84.	1
1,3-Dichlorobenzene	ND		ug/kg	470	81.	1
1,4-Dichlorobenzene	ND		ug/kg	470	82.	1
3,3'-Dichlorobenzidine	ND		ug/kg	470	120	1
2,4-Dinitrotoluene	ND		ug/kg	470	94.	1
2,6-Dinitrotoluene	ND		ug/kg	470	81.	1
Fluoranthene	57	J	ug/kg	280	54.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	470	50.	1
4-Bromophenyl phenyl ether	ND		ug/kg	470	72.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	560	80.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	510	47.	1
Hexachlorobutadiene	ND		ug/kg	470	69.	1
Hexachlorocyclopentadiene	ND		ug/kg	1300	430	1
Hexachloroethane	ND		ug/kg	380	76.	1
Isophorone	ND		ug/kg	420	61.	1
Naphthalene	ND		ug/kg	470	57.	1
Nitrobenzene	ND		ug/kg	420	70.	1
NDPA/DPA	ND		ug/kg	380	54.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	470	73.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	470	160	1
Butyl benzyl phthalate	ND		ug/kg	470	120	1
Di-n-butylphthalate	ND		ug/kg	470	89.	1
Di-n-octylphthalate	ND		ug/kg	470	160	1

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-02**Date Collected:** 11/28/22 11:40**Client ID:** GZ-02**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	470	44.	1
Dimethyl phthalate	ND		ug/kg	470	99.	1
Benzo(a)anthracene	ND		ug/kg	280	53.	1
Benzo(a)pyrene	ND		ug/kg	380	110	1
Benzo(b)fluoranthene	ND		ug/kg	280	79.	1
Benzo(k)fluoranthene	ND		ug/kg	280	75.	1
Chrysene	ND		ug/kg	280	49.	1
Acenaphthylene	ND		ug/kg	380	73.	1
Anthracene	ND		ug/kg	280	92.	1
Benzo(ghi)perylene	ND		ug/kg	380	55.	1
Fluorene	ND		ug/kg	470	46.	1
Phenanthrene	ND		ug/kg	280	57.	1
Dibenzo(a,h)anthracene	ND		ug/kg	280	54.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	380	66.	1
Pyrene	48	J	ug/kg	280	47.	1
Biphenyl	ND		ug/kg	1100	61.	1
4-Chloroaniline	ND		ug/kg	470	86.	1
2-Nitroaniline	ND		ug/kg	470	91.	1
3-Nitroaniline	ND		ug/kg	470	89.	1
4-Nitroaniline	ND		ug/kg	470	190	1
Dibenzofuran	ND		ug/kg	470	44.	1
2-Methylnaphthalene	ND		ug/kg	560	57.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	470	49.	1
Acetophenone	ND		ug/kg	470	58.	1
2,4,6-Trichlorophenol	ND		ug/kg	280	89.	1
p-Chloro-m-cresol	ND		ug/kg	470	70.	1
2-Chlorophenol	ND		ug/kg	470	56.	1
2,4-Dichlorophenol	ND		ug/kg	420	76.	1
2,4-Dimethylphenol	ND		ug/kg	470	160	1
2-Nitrophenol	ND		ug/kg	1000	180	1
4-Nitrophenol	ND		ug/kg	660	190	1
2,4-Dinitrophenol	ND		ug/kg	2200	220	1
4,6-Dinitro-o-cresol	ND		ug/kg	1200	220	1
Pentachlorophenol	ND		ug/kg	380	100	1
Phenol	ND		ug/kg	470	71.	1
2-Methylphenol	ND		ug/kg	470	73.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	680	74.	1

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-02**Date Collected:** 11/28/22 11:40**Client ID:** GZ-02**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	470	90.	1
Benzoic Acid	ND		ug/kg	1500	480	1
Benzyl Alcohol	ND		ug/kg	470	140	1
Carbazole	ND		ug/kg	470	46.	1
1,4-Dioxane	ND		ug/kg	70	22.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		25-120
Phenol-d6	72		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	66		30-120
2,4,6-Tribromophenol	59		10-136
4-Terphenyl-d14	67		18-120

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 11/29/22 20:54
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 11/29/22 03:27

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1716916-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 11/29/22 20:54
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 11/29/22 03:27

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1716916-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	99	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	370	21.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	360	62.

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 11/29/22 20:54
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 11/29/22 03:27

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1716916-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	76.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	530	170
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.
1,4-Dioxane	ND		ug/kg	25	7.6

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	76		25-120
Phenol-d6	74		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	92		30-120
2,4,6-Tribromophenol	113		10-136
4-Terphenyl-d14	97		18-120

Lab Control Sample Analysis Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB

Lab Number: L2266450

Project Number: 41.0163094.00

Report Date: 12/12/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1716916-2 WG1716916-3								
Acenaphthene	65		67		31-137	3		50
1,2,4-Trichlorobenzene	71		76		38-107	7		50
Hexachlorobenzene	82		90		40-140	9		50
Bis(2-chloroethyl)ether	62		64		40-140	3		50
2-Chloronaphthalene	73		78		40-140	7		50
1,2-Dichlorobenzene	64		66		40-140	3		50
1,3-Dichlorobenzene	65		67		40-140	3		50
1,4-Dichlorobenzene	64		64		28-104	0		50
3,3'-Dichlorobenzidine	61		62		40-140	2		50
2,4-Dinitrotoluene	70		77		40-132	10		50
2,6-Dinitrotoluene	73		86		40-140	16		50
Fluoranthene	70		72		40-140	3		50
4-Chlorophenyl phenyl ether	69		76		40-140	10		50
4-Bromophenyl phenyl ether	77		86		40-140	11		50
Bis(2-chloroisopropyl)ether	57		61		40-140	7		50
Bis(2-chloroethoxy)methane	62		71		40-117	14		50
Hexachlorobutadiene	76		79		40-140	4		50
Hexachlorocyclopentadiene	77		86		40-140	11		50
Hexachloroethane	62		64		40-140	3		50
Isophorone	56		64		40-140	13		50
Naphthalene	66		67		40-140	2		50
Nitrobenzene	56		59		40-140	5		50
NDPA/DPA	69		75		36-157	8		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB

Project Number: 41.0163094.00

Lab Number: L2266450

Report Date: 12/12/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1716916-2 WG1716916-3								
n-Nitrosodi-n-propylamine	59		65		32-121	10		50
Bis(2-ethylhexyl)phthalate	63		73		40-140	15		50
Butyl benzyl phthalate	74		80		40-140	8		50
Di-n-butylphthalate	74		82		40-140	10		50
Di-n-octylphthalate	72		82		40-140	13		50
Diethyl phthalate	69		76		40-140	10		50
Dimethyl phthalate	73		84		40-140	14		50
Benzo(a)anthracene	70		75		40-140	7		50
Benzo(a)pyrene	87		83		40-140	5		50
Benzo(b)fluoranthene	81		80		40-140	1		50
Benzo(k)fluoranthene	85		81		40-140	5		50
Chrysene	67		70		40-140	4		50
Acenaphthylene	71		78		40-140	9		50
Anthracene	72		73		40-140	1		50
Benzo(ghi)perylene	80		79		40-140	1		50
Fluorene	65		69		40-140	6		50
Phenanthrene	68		69		40-140	1		50
Dibenzo(a,h)anthracene	80		79		40-140	1		50
Indeno(1,2,3-cd)pyrene	86		86		40-140	0		50
Pyrene	69		72		35-142	4		50
Biphenyl	72		79		37-127	9		50
4-Chloroaniline	29	Q	35	Q	40-140	19		50
2-Nitroaniline	69		78		47-134	12		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB

Project Number: 41.0163094.00

Lab Number: L2266450

Report Date: 12/12/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1716916-2 WG1716916-3								
3-Nitroaniline	47		50		26-129	6		50
4-Nitroaniline	63		72		41-125	13		50
Dibenzofuran	69		74		40-140	7		50
2-Methylnaphthalene	70		75		40-140	7		50
1,2,4,5-Tetrachlorobenzene	77		83		40-117	8		50
Acetophenone	69		75		14-144	8		50
2,4,6-Trichlorophenol	74		84		30-130	13		50
p-Chloro-m-cresol	70		77		26-103	10		50
2-Chlorophenol	67		73		25-102	9		50
2,4-Dichlorophenol	74		83		30-130	11		50
2,4-Dimethylphenol	60		69		30-130	14		50
2-Nitrophenol	66		71		30-130	7		50
4-Nitrophenol	56		60		11-114	7		50
2,4-Dinitrophenol	45		52		4-130	14		50
4,6-Dinitro-o-cresol	69		82		10-130	17		50
Pentachlorophenol	63		78		17-109	21		50
Phenol	66		70		26-90	6		50
2-Methylphenol	62		70		30-130	12		50
3-Methylphenol/4-Methylphenol	62		68		30-130	9		50
2,4,5-Trichlorophenol	72		84		30-130	15		50
Benzoic Acid	0	Q	0	Q	10-110	NC		50
Benzyl Alcohol	61		69		40-140	12		50
Carbazole	71		72		54-128	1		50

Lab Control Sample Analysis**Batch Quality Control****Project Name:** HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1716916-2 WG1716916-3								
1,4-Dioxane	40		37	Q	40-140	8		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	66		65		25-120
Phenol-d6	63		65		10-120
Nitrobenzene-d5	57		59		23-120
2-Fluorobiphenyl	75		80		30-120
2,4,6-Tribromophenol	94		102		10-136
4-Terphenyl-d14	76		81		18-120

PCBS

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS**

Lab ID: L2266450-01

Date Collected: 11/28/22 09:20

Client ID: GZ-01

Date Received: 11/28/22

Sample Location: HAMPSHIRE COUNTRY CLUB MAMARONECK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8082A

Extraction Date: 11/29/22 18:54

Analytical Date: 11/30/22 13:02

Cleanup Method: EPA 3665A

Analyst: JM

Cleanup Date: 11/30/22

Percent Solids: 64%

Cleanup Method: EPA 3660B

Cleanup Date: 11/30/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	136	12.0	1	A
Aroclor 1221	ND		ug/kg	136	13.6	1	A
Aroclor 1232	ND		ug/kg	136	28.8	1	A
Aroclor 1242	ND		ug/kg	136	18.3	1	A
Aroclor 1248	ND		ug/kg	136	20.3	1	A
Aroclor 1254	ND		ug/kg	136	14.8	1	A
Aroclor 1260	ND		ug/kg	136	25.1	1	A
Aroclor 1262	ND		ug/kg	136	17.2	1	A
Aroclor 1268	ND		ug/kg	136	14.0	1	A
PCBs, Total	ND		ug/kg	136	12.0	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	55		30-150	B

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-02**Date Collected:** 11/28/22 11:40**Client ID:** GZ-02**Date Received:** 11/28/22**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil**Extraction Method:** EPA 3546**Analytical Method:** 1,8082A**Extraction Date:** 12/09/22 15:05**Analytical Date:** 12/10/22 08:54**Cleanup Method:** EPA 3665A**Analyst:** ER**Cleanup Date:** 12/09/22**Percent Solids:** 35%**Cleanup Method:** EPA 3660B**Cleanup Date:** 12/10/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	91.4	8.12	1	A
Aroclor 1221	ND		ug/kg	91.4	9.16	1	A
Aroclor 1232	ND		ug/kg	91.4	19.4	1	A
Aroclor 1242	ND		ug/kg	91.4	12.3	1	A
Aroclor 1248	ND		ug/kg	91.4	13.7	1	A
Aroclor 1254	ND		ug/kg	91.4	10.0	1	A
Aroclor 1260	ND		ug/kg	91.4	16.9	1	A
Aroclor 1262	ND		ug/kg	91.4	11.6	1	A
Aroclor 1268	ND		ug/kg	91.4	9.47	1	A
PCBs, Total	ND		ug/kg	91.4	8.12	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	47		30-150	A
Decachlorobiphenyl	34		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	37		30-150	B

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
 Analytical Date: 11/30/22 12:36
 Analyst: SDC

Extraction Method: EPA 3546
 Extraction Date: 11/29/22 18:54
 Cleanup Method: EPA 3665A
 Cleanup Date: 11/30/22
 Cleanup Method: EPA 3660B
 Cleanup Date: 11/30/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1717287-1						
Aroclor 1016	ND		ug/kg	32.4	2.88	A
Aroclor 1221	ND		ug/kg	32.4	3.25	A
Aroclor 1232	ND		ug/kg	32.4	6.88	A
Aroclor 1242	ND		ug/kg	32.4	4.37	A
Aroclor 1248	ND		ug/kg	32.4	4.87	A
Aroclor 1254	ND		ug/kg	32.4	3.55	A
Aroclor 1260	ND		ug/kg	32.4	6.00	A
Aroclor 1262	ND		ug/kg	32.4	4.12	A
Aroclor 1268	ND		ug/kg	32.4	3.36	A
PCBs, Total	ND		ug/kg	32.4	2.88	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		30-150	A
Decachlorobiphenyl	68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	64		30-150	B

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
 Analytical Date: 12/10/22 11:05
 Analyst: ER

Extraction Method: EPA 3546
 Extraction Date: 12/09/22 07:29
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/09/22
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/09/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 02 Batch: WG1721272-1						
Aroclor 1016	ND		ug/kg	32.5	2.89	A
Aroclor 1221	ND		ug/kg	32.5	3.26	A
Aroclor 1232	ND		ug/kg	32.5	6.89	A
Aroclor 1242	ND		ug/kg	32.5	4.38	A
Aroclor 1248	ND		ug/kg	32.5	4.88	A
Aroclor 1254	ND		ug/kg	32.5	3.56	A
Aroclor 1260	ND		ug/kg	32.5	6.01	A
Aroclor 1262	ND		ug/kg	32.5	4.13	A
Aroclor 1268	ND		ug/kg	32.5	3.37	A
PCBs, Total	ND		ug/kg	32.5	2.89	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	54		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	56		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB

Project Number: 41.0163094.00

Lab Number: L2266450

Report Date: 12/12/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1717287-2 WG1717287-3									
Aroclor 1016	88		94		40-140	7		50	A
Aroclor 1260	72		77		40-140	7		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	91		95		30-150	A
Decachlorobiphenyl	70		76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		91		30-150	B
Decachlorobiphenyl	65		72		30-150	B

Lab Control Sample Analysis**Batch Quality Control****Project Name:** HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 02 Batch: WG1721272-2 WG1721272-3									
Aroclor 1016	78		69		40-140	12		50	A
Aroclor 1260	56		59		40-140	5		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		70		30-150	A
Decachlorobiphenyl	54		57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		72		30-150	B
Decachlorobiphenyl	55		58		30-150	B

PESTICIDES

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS**

Lab ID: L2266450-01

Date Collected: 11/28/22 09:20

Client ID: GZ-01

Date Received: 11/28/22

Sample Location: HAMPSHIRE COUNTRY CLUB MAMARONECK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8081B

Extraction Date: 11/29/22 18:35

Analytical Date: 12/01/22 17:50

Cleanup Method: EPA 3620B

Analyst: AAR

Cleanup Date: 11/30/22

Percent Solids: 64%

Cleanup Method: EPA 3660B

Cleanup Date: 11/30/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	7.22	1.41	1	A
Lindane	ND		ug/kg	3.01	1.34	1	A
Alpha-BHC	ND		ug/kg	3.01	0.855	1	A
Beta-BHC	ND		ug/kg	7.22	2.74	1	A
Heptachlor	ND		ug/kg	3.61	1.62	1	A
Aldrin	ND		ug/kg	7.22	2.54	1	A
Heptachlor epoxide	ND		ug/kg	13.5	4.06	1	A
Endrin	ND		ug/kg	3.01	1.23	1	A
Endrin aldehyde	ND		ug/kg	9.03	3.16	1	A
Endrin ketone	ND		ug/kg	7.22	1.86	1	A
Dieldrin	ND		ug/kg	4.52	2.26	1	A
4,4'-DDE	53.3		ug/kg	7.22	1.67	1	A
4,4'-DDD	21.4		ug/kg	7.22	2.58	1	A
4,4'-DDT	6.99	JIP	ug/kg	7.22	5.81	1	A
Endosulfan I	ND		ug/kg	7.22	1.71	1	A
Endosulfan II	ND		ug/kg	7.22	2.41	1	A
Endosulfan sulfate	ND		ug/kg	3.01	1.43	1	A
Methoxychlor	ND		ug/kg	13.5	4.21	1	A
Toxaphene	ND		ug/kg	135	37.9	1	A
cis-Chlordane	11.6	IP	ug/kg	9.03	2.52	1	B
trans-Chlordane	22.0	IP	ug/kg	9.03	2.38	1	A
Chlordane	266	P	ug/kg	60.2	23.9	1	B

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS**

Lab ID: L2266450-01

Date Collected: 11/28/22 09:20

Client ID: GZ-01

Date Received: 11/28/22

Sample Location: HAMPSHIRE COUNTRY CLUB MAMARONECK, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	85		30-150	A
Decachlorobiphenyl	91		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS**

Lab ID: L2266450-02

Date Collected: 11/28/22 11:40

Client ID: GZ-02

Date Received: 11/28/22

Sample Location: HAMPSHIRE COUNTRY CLUB MAMARONECK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8081B

Extraction Date: 11/29/22 18:35

Analytical Date: 12/01/22 18:01

Cleanup Method: EPA 3620B

Analyst: AAR

Cleanup Date: 11/30/22

Percent Solids: 35%

Cleanup Method: EPA 3660B

Cleanup Date: 11/30/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	4.54	0.890	1	A
Lindane	ND		ug/kg	1.89	0.846	1	A
Alpha-BHC	ND		ug/kg	1.89	0.538	1	A
Beta-BHC	ND		ug/kg	4.54	1.72	1	A
Heptachlor	ND		ug/kg	2.27	1.02	1	A
Aldrin	ND		ug/kg	4.54	1.60	1	A
Heptachlor epoxide	ND		ug/kg	8.52	2.56	1	A
Endrin	ND		ug/kg	1.89	0.776	1	A
Endrin aldehyde	ND		ug/kg	5.68	1.99	1	A
Endrin ketone	ND		ug/kg	4.54	1.17	1	A
Dieldrin	ND		ug/kg	2.84	1.42	1	A
4,4'-DDE	74.5		ug/kg	4.54	1.05	1	B
4,4'-DDD	37.9		ug/kg	4.54	1.62	1	A
4,4'-DDT	ND	IP	ug/kg	4.54	3.65	1	A
Endosulfan I	ND		ug/kg	4.54	1.07	1	A
Endosulfan II	ND		ug/kg	4.54	1.52	1	A
Endosulfan sulfate	ND		ug/kg	1.89	0.901	1	A
Methoxychlor	ND		ug/kg	8.52	2.65	1	A
Toxaphene	ND		ug/kg	85.2	23.8	1	A
cis-Chlordane	4.69	JIP	ug/kg	5.68	1.58	1	B
trans-Chlordane	21.9		ug/kg	5.68	1.50	1	A
Chlordane	117	IP	ug/kg	37.9	15.0	1	A

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS**

Lab ID: L2266450-02

Date Collected: 11/28/22 11:40

Client ID: GZ-02

Date Received: 11/28/22

Sample Location: HAMPSHIRE COUNTRY CLUB MAMARONECK, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	138		30-150	A
Decachlorobiphenyl	100		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B
 Analytical Date: 11/30/22 10:39
 Analyst: AKM

Extraction Method: EPA 3546
 Extraction Date: 11/29/22 16:59
 Cleanup Method: EPA 3620B
 Cleanup Date: 11/30/22
 Cleanup Method: EPA 3660B
 Cleanup Date: 11/30/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-02 Batch: WG1717239-1						
Delta-BHC	ND		ug/kg	1.50	0.294	A
Lindane	ND		ug/kg	0.626	0.280	A
Alpha-BHC	ND		ug/kg	0.626	0.178	A
Beta-BHC	ND		ug/kg	1.50	0.569	A
Heptachlor	ND		ug/kg	0.751	0.337	A
Aldrin	ND		ug/kg	1.50	0.529	A
Heptachlor epoxide	ND		ug/kg	2.82	0.845	A
Endrin	ND		ug/kg	0.626	0.256	A
Endrin aldehyde	ND		ug/kg	1.88	0.657	A
Endrin ketone	ND		ug/kg	1.50	0.387	A
Dieldrin	ND		ug/kg	0.939	0.469	A
4,4'-DDE	ND		ug/kg	1.50	0.347	A
4,4'-DDD	ND		ug/kg	1.50	0.536	A
4,4'-DDT	ND		ug/kg	1.50	1.21	A
Endosulfan I	ND		ug/kg	1.50	0.355	A
Endosulfan II	ND		ug/kg	1.50	0.502	A
Endosulfan sulfate	ND		ug/kg	0.626	0.298	A
Methoxychlor	ND		ug/kg	2.82	0.876	A
Toxaphene	ND		ug/kg	28.2	7.88	A
cis-Chlordane	ND		ug/kg	1.88	0.523	A
trans-Chlordane	ND		ug/kg	1.88	0.496	A
Chlordane	ND		ug/kg	12.5	4.97	A

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
 Analytical Date: 11/30/22 10:39
 Analyst: AKM

Extraction Method: EPA 3546
 Extraction Date: 11/29/22 16:59
 Cleanup Method: EPA 3620B
 Cleanup Date: 11/30/22
 Cleanup Method: EPA 3660B
 Cleanup Date: 11/30/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-02 Batch: WG1717239-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	77		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	74		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB

Lab Number: L2266450

Project Number: 41.0163094.00

Report Date: 12/12/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1717239-2 WG1717239-3									
Delta-BHC	97		106		30-150	9		30	A
Lindane	88		96		30-150	9		30	A
Alpha-BHC	90		98		30-150	9		30	A
Beta-BHC	94		105		30-150	11		30	A
Heptachlor	93		102		30-150	9		30	A
Aldrin	80		87		30-150	8		30	A
Heptachlor epoxide	76		83		30-150	9		30	A
Endrin	87		94		30-150	8		30	A
Endrin aldehyde	70		78		30-150	11		30	A
Endrin ketone	94		102		30-150	8		30	A
Dieldrin	90		97		30-150	7		30	A
4,4'-DDE	84		91		30-150	8		30	A
4,4'-DDD	104		112		30-150	7		30	A
4,4'-DDT	101		109		30-150	8		30	A
Endosulfan I	78		84		30-150	7		30	A
Endosulfan II	86		93		30-150	8		30	A
Endosulfan sulfate	76		84		30-150	10		30	A
Methoxychlor	111		121		30-150	9		30	A
cis-Chlordane	71		78		30-150	9		30	A
trans-Chlordane	91		99		30-150	8		30	A

Lab Control Sample Analysis**Batch Quality Control****Project Name:** HAMPSHIRE COUNTRY CLUB**Project Number:** 41.0163094.00**Lab Number:** L2266450**Report Date:** 12/12/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1717239-2 WG1717239-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		69		30-150	A
Decachlorobiphenyl	78		81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		73		30-150	B
Decachlorobiphenyl	75		78		30-150	B

METALS

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS**

Lab ID: L2266450-01

Date Collected: 11/28/22 09:20

Client ID: GZ-01

Date Received: 11/28/22

Sample Location: HAMPSHIRE COUNTRY CLUB MAMARONECK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 64%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	8710		mg/kg	12.1	3.27	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Antimony, Total	ND		mg/kg	6.06	0.460	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Arsenic, Total	2.92		mg/kg	1.21	0.252	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Barium, Total	71.3		mg/kg	1.21	0.211	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Beryllium, Total	0.820		mg/kg	0.606	0.040	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Cadmium, Total	0.289	J	mg/kg	1.21	0.119	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Calcium, Total	4310		mg/kg	12.1	4.24	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Chromium, Total	19.1		mg/kg	1.21	0.116	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Cobalt, Total	7.33		mg/kg	2.42	0.201	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Copper, Total	29.2		mg/kg	1.21	0.312	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Iron, Total	16600		mg/kg	6.06	1.09	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Lead, Total	31.0		mg/kg	6.06	0.325	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Magnesium, Total	3490		mg/kg	12.1	1.86	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Manganese, Total	268		mg/kg	1.21	0.192	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Mercury, Total	0.124		mg/kg	0.098	0.064	1	11/29/22 08:00	11/29/22 13:19	EPA 7471B	1,7471B	TAA
Nickel, Total	15.5		mg/kg	3.03	0.293	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Potassium, Total	2460		mg/kg	303	17.4	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Selenium, Total	ND		mg/kg	2.42	0.312	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Silver, Total	ND		mg/kg	0.606	0.343	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Sodium, Total	155	J	mg/kg	242	3.82	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Thallium, Total	ND		mg/kg	2.42	0.382	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Vanadium, Total	25.4		mg/kg	1.21	0.246	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW
Zinc, Total	75.6		mg/kg	6.06	0.355	2	11/29/22 08:45	11/29/22 16:41	EPA 3050B	1,6010D	AMW



Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22**SAMPLE RESULTS**

Lab ID: L2266450-02

Date Collected: 11/28/22 11:40

Client ID: GZ-02

Date Received: 11/28/22

Sample Location: HAMPSHIRE COUNTRY CLUB MAMARONECK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 35%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	18400		mg/kg	21.9	5.92	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Antimony, Total	ND		mg/kg	11.0	0.833	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Arsenic, Total	15.7		mg/kg	2.19	0.456	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Barium, Total	164		mg/kg	2.19	0.381	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Beryllium, Total	1.11		mg/kg	1.10	0.072	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Cadmium, Total	ND		mg/kg	2.19	0.215	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Calcium, Total	4600		mg/kg	21.9	7.67	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Chromium, Total	23.8		mg/kg	2.19	0.210	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Cobalt, Total	5.07		mg/kg	4.38	0.364	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Copper, Total	51.9		mg/kg	2.19	0.565	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Iron, Total	20700		mg/kg	11.0	1.98	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Lead, Total	19.3		mg/kg	11.0	0.587	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Magnesium, Total	3110		mg/kg	21.9	3.37	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Manganese, Total	180		mg/kg	2.19	0.348	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Mercury, Total	ND		mg/kg	0.179	0.117	1	11/29/22 08:00	11/29/22 13:28	EPA 7471B	1,7471B	TAA
Nickel, Total	18.1		mg/kg	5.48	0.530	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Potassium, Total	820		mg/kg	548	31.6	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Selenium, Total	0.616	J	mg/kg	4.38	0.565	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Silver, Total	ND		mg/kg	1.10	0.620	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Sodium, Total	477		mg/kg	438	6.90	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Thallium, Total	ND		mg/kg	4.38	0.690	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Vanadium, Total	20.2		mg/kg	2.19	0.445	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW
Zinc, Total	57.6		mg/kg	11.0	0.642	2	11/29/22 08:45	11/29/22 16:45	EPA 3050B	1,6010D	AMW



Project Name: HAMPSHIRE COUNTRY CLUB

Lab Number: L2266450

Project Number: 41.0163094.00

Report Date: 12/12/22

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1716978-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	11/29/22 08:00	11/29/22 12:24	1,7471B	TAA

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1716982-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Antimony, Total	ND		mg/kg	2.00	0.152	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Arsenic, Total	0.089	J	mg/kg	0.400	0.083	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Barium, Total	ND		mg/kg	0.400	0.070	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Beryllium, Total	ND		mg/kg	0.200	0.013	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Cadmium, Total	ND		mg/kg	0.400	0.039	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Calcium, Total	2.48	J	mg/kg	4.00	1.40	1	11/29/22 08:45	11/29/22 15:29	1,6010D	AMW
Chromium, Total	ND		mg/kg	0.400	0.038	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Cobalt, Total	ND		mg/kg	0.800	0.066	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Copper, Total	ND		mg/kg	0.400	0.103	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Iron, Total	ND		mg/kg	2.00	0.361	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Lead, Total	ND		mg/kg	2.00	0.107	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Magnesium, Total	ND		mg/kg	4.00	0.616	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Manganese, Total	ND		mg/kg	0.400	0.064	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Nickel, Total	ND		mg/kg	1.00	0.097	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Potassium, Total	ND		mg/kg	100	5.76	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Selenium, Total	ND		mg/kg	0.800	0.103	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Silver, Total	ND		mg/kg	0.200	0.113	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Sodium, Total	1.92	J	mg/kg	80.0	1.26	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Thallium, Total	ND		mg/kg	0.800	0.126	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Vanadium, Total	ND		mg/kg	0.400	0.081	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB
Zinc, Total	ND		mg/kg	2.00	0.117	1	11/29/22 08:45	11/29/22 13:30	1,6010D	DMB

Project Name: HAMPSHIRE COUNTRY CLUB

Lab Number: L2266450

Project Number: 41.0163094.00

Report Date: 12/12/22

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis**Batch Quality Control****Project Name:** HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1716978-2 SRM Lot Number: D113-540								
Mercury, Total	101		-		60-140	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB

Project Number: 41.0163094.00

Lab Number: L2266450

Report Date: 12/12/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1716982-2 SRM Lot Number: D113-540					
Aluminum, Total	89	-	51-149	-	
Antimony, Total	187	-	20-250	-	
Arsenic, Total	105	-	70-130	-	
Barium, Total	96	-	75-125	-	
Beryllium, Total	102	-	75-125	-	
Cadmium, Total	98	-	75-125	-	
Calcium, Total	106	-	73-128	-	
Chromium, Total	102	-	70-130	-	
Cobalt, Total	100	-	75-125	-	
Copper, Total	98	-	75-125	-	
Iron, Total	114	-	36-164	-	
Lead, Total	99	-	72-128	-	
Magnesium, Total	96	-	63-138	-	
Manganese, Total	96	-	77-123	-	
Nickel, Total	100	-	70-130	-	
Potassium, Total	96	-	59-141	-	
Selenium, Total	102	-	66-134	-	
Silver, Total	99	-	70-131	-	
Sodium, Total	103	-	35-164	-	
Thallium, Total	100	-	70-130	-	
Vanadium, Total	101	-	74-126	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1716982-2 SRM Lot Number: D113-540					
Zinc, Total	101	-	70-130	-	

Matrix Spike Analysis

Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1716978-3 WG1716978-4 QC Sample: L2266517-03 Client ID: MS Sample												
Mercury, Total	0.171	1.4	1.50	95		1.49	95		80-120	1		20

Matrix Spike Analysis

Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02			QC Batch ID: WG1716982-3		QC Sample: L2266516-01		Client ID: MS Sample		
Aluminum, Total	4140	192	5020	458	Q	-	75-125	-	20
Antimony, Total	ND	48	47.0	98	-	-	75-125	-	20
Arsenic, Total	2.60	11.5	14.6	104	-	-	75-125	-	20
Barium, Total	6.74	192	198	100	-	-	75-125	-	20
Beryllium, Total	0.242J	4.8	5.17	108	-	-	75-125	-	20
Cadmium, Total	ND	5.09	5.12	100	-	-	75-125	-	20
Calcium, Total	788	961	1780	104	-	-	75-125	-	20
Chromium, Total	7.76	19.2	27.3	102	-	-	75-125	-	20
Cobalt, Total	3.03	48	48.2	94	-	-	75-125	-	20
Copper, Total	3.84	24	27.9	100	-	-	75-125	-	20
Iron, Total	10100	96.1	10900	833	Q	-	75-125	-	20
Lead, Total	4.75J	50.9	53.2	104	-	-	75-125	-	20
Magnesium, Total	1790	961	2900	116	-	-	75-125	-	20
Manganese, Total	109	48	157	100	-	-	75-125	-	20
Nickel, Total	7.20	48	54.2	98	-	-	75-125	-	20
Potassium, Total	520	961	1580	110	-	-	75-125	-	20
Selenium, Total	ND	11.5	11.6	101	-	-	75-125	-	20
Silver, Total	ND	28.8	31.0	108	-	-	75-125	-	20
Sodium, Total	154J	961	1220	127	Q	-	75-125	-	20
Thallium, Total	ND	11.5	11.2	97	-	-	75-125	-	20
Vanadium, Total	11.5	48	59.4	100	-	-	75-125	-	20

Matrix Spike Analysis Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB

Project Number: 41.0163094.00

Lab Number: L2266450

Report Date: 12/12/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1716982-3 QC Sample: L2266516-01 Client ID: MS Sample									
Zinc, Total	20.5	48	68.8	100	-	-	75-125	-	20

Lab Duplicate Analysis *Batch Quality Control*

Project Name: HAMPSHIRE COUNTRY CLUB

Project Number: 41.0163094.00

Lab Number: L2266450

Report Date: 12/12/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1716982-4 QC Sample: L2266516-01 Client ID: DUP Sample						
Aluminum, Total	4140	3860	mg/kg	7		20
Antimony, Total	ND	ND	mg/kg	NC		20
Arsenic, Total	2.60	2.57	mg/kg	1		20
Barium, Total	6.74	6.42	mg/kg	5		20
Beryllium, Total	0.242J	0.263J	mg/kg	NC		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Chromium, Total	7.76	7.25	mg/kg	7		20
Cobalt, Total	3.03	2.77	mg/kg	9		20
Copper, Total	3.84	3.38	mg/kg	13		20
Iron, Total	10100	9430	mg/kg	7		20
Lead, Total	4.75J	3.48J	mg/kg	NC		20
Magnesium, Total	1790	1640	mg/kg	9		20
Manganese, Total	109	100	mg/kg	9		20
Nickel, Total	7.20	6.48	mg/kg	11		20
Potassium, Total	520	510	mg/kg	2		20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Sodium, Total	154J	203	mg/kg	NC		20
Thallium, Total	ND	ND	mg/kg	NC		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: HAMPSHIRE COUNTRY CLUB

Project Number: 41.0163094.00

Lab Number: L2266450

Report Date: 12/12/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1716982-4 QC Sample: L2266516-01 Client ID: DUP Sample					
Vanadium, Total	11.5	12.8	mg/kg	11	20
Zinc, Total	20.5	18.0	mg/kg	13	20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1716982-4 QC Sample: L2266516-01 Client ID: DUP Sample					
Calcium, Total	788	882	mg/kg	11	20

Project Name: HAMPSHIRE COUNTRY CLUB

Project Number: 41.0163094.00

**Lab Serial Dilution
Analysis
Batch Quality Control**

Lab Number: L2266450

Report Date: 12/12/22

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1716982-6 QC Sample: L2266516-01 Client ID: DUP Sample						
Aluminum, Total	4140	4450	mg/kg	7		20
Iron, Total	10100	10700	mg/kg	6		20
Magnesium, Total	1790	1860	mg/kg	4		20
Manganese, Total	109	116	mg/kg	6		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1716982-6 QC Sample: L2266516-01 Client ID: DUP Sample						
Calcium, Total	788	788	mg/kg	0		20

INORGANICS & MISCELLANEOUS

Project Name: HAMPSHIRE COUNTRY CLUB**Project Number:** 41.0163094.00**Lab Number:** L2266450**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-01**Client ID:** GZ-01**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Date Collected:** 11/28/22 09:20**Date Received:** 11/28/22**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	64.0		%	0.100	NA	1	-	11/29/22 10:23	121,2540G	RI



Project Name: HAMPSHIRE COUNTRY CLUB**Project Number:** 41.0163094.00**Lab Number:** L2266450**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-02**Client ID:** GZ-02**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Date Collected:** 11/28/22 11:40**Date Received:** 11/28/22**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	35.0		%	0.100	NA	1	-	11/29/22 10:23	121,2540G	RI



Project Name: HAMPSHIRE COUNTRY CLUB**Project Number:** 41.0163094.00**Lab Number:** L2266450**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-03**Client ID:** GZ-03**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Date Collected:** 11/28/22 09:30**Date Received:** 11/28/22**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77.2		%	0.100	NA	1	-	11/29/22 10:23	121,2540G	RI



Project Name: HAMPSHIRE COUNTRY CLUB**Project Number:** 41.0163094.00**Lab Number:** L2266450**Report Date:** 12/12/22**SAMPLE RESULTS****Lab ID:** L2266450-04**Client ID:** GZ-04**Sample Location:** HAMPSHIRE COUNTRY CLUB MAMARONECK, NY**Date Collected:** 11/28/22 11:50**Date Received:** 11/28/22**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	72.0		%	0.100	NA	1	-	11/29/22 10:23	121,2540G	RI



Lab Duplicate Analysis
*Batch Quality Control***Project Name:** HAMPSHIRE COUNTRY CLUB**Project Number:** 41.0163094.00**Lab Number:** L2266450**Report Date:** 12/12/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1717054-1 QC Sample: L2266479-01 Client ID: DUP Sample						
Solids, Total	83.9	85.0	%	1		20

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Serial_No: 12122213:59
Lab Number: L2266450
Report Date: 12/12/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2266450-01A	Vial MeOH preserved	A	NA		3.5	Y	Absent		NYTCL-8260HLW(14)
L2266450-01B	Vial water preserved	A	NA		3.5	Y	Absent	29-NOV-22 03:30	NYTCL-8260HLW(14)
L2266450-01C	Vial water preserved	A	NA		3.5	Y	Absent	29-NOV-22 03:30	NYTCL-8260HLW(14)
L2266450-01D	Plastic 2oz unpreserved for TS	A	NA		3.5	Y	Absent		TS(7)
L2266450-01E	Plastic 120ml unpreserved	A	NA		3.5	Y	Absent		TS(7)
L2266450-01F	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),TL-TI(180),CR-TI(180),AL-TI(180),ZN-TI(180),SB-TI(180),CU-TI(180),SE-TI(180),PB-TI(180),CO-TI(180),V-TI(180),MG-TI(180),FE-TI(180),HG-T(28),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L2266450-01G	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2266450-02A	Vial MeOH preserved	A	NA		3.5	Y	Absent		NYTCL-8260HLW(14)
L2266450-02B	Vial water preserved	A	NA		3.5	Y	Absent	29-NOV-22 03:30	NYTCL-8260HLW(14)
L2266450-02C	Vial water preserved	A	NA		3.5	Y	Absent	29-NOV-22 03:30	NYTCL-8260HLW(14)
L2266450-02D	Plastic 2oz unpreserved for TS	A	NA		3.5	Y	Absent		TS(7)
L2266450-02E	Plastic 120ml unpreserved	A	NA		3.5	Y	Absent		TS(7)
L2266450-02F	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),TL-TI(180),AL-TI(180),NI-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),SB-TI(180),CU-TI(180),ZN-TI(180),V-TI(180),CO-TI(180),MN-TI(180),MG-TI(180),HG-T(28),FE-TI(180),NA-TI(180),CD-TI(180),CA-TI(180),K-TI(180)
L2266450-02G	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2266450-03A	Vial MeOH preserved	A	NA		3.5	Y	Absent		NYTCL-8260HLW(14)
L2266450-03B	Vial water preserved	A	NA		3.5	Y	Absent	29-NOV-22 03:30	NYTCL-8260HLW(14)
L2266450-03C	Vial water preserved	A	NA		3.5	Y	Absent	29-NOV-22 03:30	NYTCL-8260HLW(14)

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Serial_No:12122213:59
Lab Number: L2266450
Report Date: 12/12/22

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2266450-03D	Plastic 120ml unpreserved	A	NA		3.5	Y	Absent		TS(7)
L2266450-04A	Vial MeOH preserved	A	NA		3.5	Y	Absent		NYTCL-8260HLW(14)
L2266450-04B	Vial water preserved	A	NA		3.5	Y	Absent	29-NOV-22 03:30	NYTCL-8260HLW(14)
L2266450-04C	Vial water preserved	A	NA		3.5	Y	Absent	29-NOV-22 03:30	NYTCL-8260HLW(14)
L2266450-04D	Plastic 120ml unpreserved	A	NA		3.5	Y	Absent		TS(7)

Project Name: HAMPSHIRE COUNTRY CLUB**Lab Number:** L2266450**Project Number:** 41.0163094.00**Report Date:** 12/12/22

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

Data Qualifiers

Identified Compounds (TICs).

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers



Project Name: HAMPSHIRE COUNTRY CLUB
Project Number: 41.0163094.00

Lab Number: L2266450
Report Date: 12/12/22

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 19

Published Date: 4/2/2021 1:14:23 PM

Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625/625.1:** alpha-Terpineol**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B


The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 1		Date Rec'd in Lab 11/28/22		ALPHA Job # L2266450	
		Project Information Project Name: <u>Hampshire Country Club</u> Project Location: <u>Hampshire Country Club, Manchester</u> Project # <u>41-0163094-00</u> Use Project name as Project # <input type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQulS (1 File) <input type="checkbox"/> EQulS (4 File) <input type="checkbox"/> Other		Billing Information <input type="checkbox"/> Same as Client Info PO #			
Client Information Client: <u>GZA Greenman</u> Address: <u>101 W 29th St</u> <u>NY NY 10001</u> Phone: <u>212 594 8140</u> Fax: <u>212 594 8140</u> Email: <u>Mark.Hutson@GZA</u>		Project Manager: <u>41-01630 Mark Hutson</u> ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/> Due Date: # of Days:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input checked="" type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:			
These samples have been previously analyzed by Alpha <input type="checkbox"/>						ANALYSIS VAC 826D SROC 827D PCBs 8082A PCBs 8081B TAL Metals 610D		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)	
Other project specific requirements/comments:						Please specify Metals or TAL.		Total Bottles	
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection Date Time		Sample Matrix		Sampler's Initials	
66450-01		G7-01		11/28/22 11:20		Sediment		7	
- 02		G7-02		11:40		7		7	
- 03		G7-03		11:30		4		4	
- 04		G7-04		11:50		4		4	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type V A →		Preservative C A →	
Relinquished By:		Date/Time:		Received By:		Date/Time:		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
11/28/22 14:05		11/28/22 14:05		11/28/22 14:05		11/28/22 14:05		11/28/22 14:05	
11/28/22 21:30		11/28/22 21:30		11/28/22 21:30		11/28/22 21:30		11/28/22 21:30	
11/28/22 23:30		11/28/22 23:30		11/28/22 23:30		11/28/22 23:30		11/28/22 23:30	



GZA GEOENVIRONMENTAL OF NEW YORK

APPENDIX 7 - CONSTRUCTION DRAWINGS

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Krimley-Horn Engineering and Landscape Architecture of New York, P.C. shall be without liability to Krimley-Horn Engineering and Landscape Architecture of New York, P.C. for any damages, actual or consequential, that may result therefrom. Krimley-Horn Engineering and Landscape Architecture of New York, P.C. shall be without liability to Krimley-Horn Engineering and Landscape Architecture of New York, P.C. for any damages, actual or consequential, that may result therefrom.

SITE MAINTENANCE PLANS
FOR
HAMPSHIRE COUNTRY CLUB
1025 COVE ROAD
MAMARONECK, NY 10543

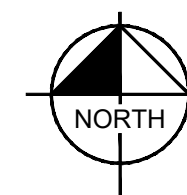
PROJECT TEAM

LANDSCAPE ARCHITECT & APPLICANT AGENT
KIMLEY-HORN ENGINEERING AND LANDSCAPE
ARCHITECTURE OF NEW YORK, P.C.
1 NORTH LEXINGTON AVENUE, SUITE 505
WHITE PLAINS, NY 10601
TEL: (914) 368-9200
CONTACT: KEVIN VAN HISE, PLA



SITE LOCATION MAP

Source: NEARMAP



GRAPHIC SCALE IN FEET

0 100 200 400

PROPERTY INFORMATION

APPLICANT
HAMPSHIRE CLUB, INC.
1025 COVE ROAD
MAMARONECK, NY 10543
TEL: 914-698-4610
CONTACT: DAVID SMITH

OWNER
HAMPSHIRE CLUB, INC.
1025 COVE ROAD
MAMARONECK, NY 10543
TEL: 914-698-4610
CONTACT: DAVID SMITH

SECTION: 9
BLOCK: 42
LOT: 568

SHEET LIST TABLE

SHEET NUMBER	SHEET TITLE
C-0.0	COVER SHEET
C-3.0	GRADING AND EROSION & SEDIMENT CONTROL PLAN
C-3.1	SITE ACCESS ROUTE PLAN
C-3.2	STOCKPILE PROFILES
C-3.3	PHOTOS OF PROPOSED STOCKPILE AREA
C-3.4	GRADING AND EROSION & SEDIMENT CONTROL DETAILS

DRAFT



05/15/2023

KHA PROJECT	AS SHOWN
112056005	
DATE	
03/28/2023	
DESIGNED BY:	TSW
DRAWN BY:	PEP
CHECKED BY:	KVH

COVER SHEET

HAMPSHIRE
COUNTRY CLUB
1025 COVE ROAD
MAMARONECK, NY 10543

VILLAGE OF MAMARONECK

SHEET NUMBER
C-0.0

[illegible]

REVISIONS

WARNING - NO ALTERATION LEGAL NOTICE: IT IS A VIOLATION OF ARTICLE 145 OF THE NEW YORK STATE ELECTION LAW FOR ANY PERSON TO ALTER THIS DOCUMENT IN ANY WAY EXCEPT AS PROVIDED IN SECTION 7209 (2) OF ARTICLE 145, NEW YORK STATE EDUCATION LAW. THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, ARE OWNED BY AND THE PROPERTY OF KIMLEY-HORN ENGINEERING AND LANDSCAPE ARCHITECTURE OF NEW YORK, P.C. AND IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN ENGINEERING AND LANDSCAPE ARCHITECTURE OF NEW YORK, P.C. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN ENGINEERING AND LANDSCAPE ARCHITECTURE OF NEW YORK, P.C.

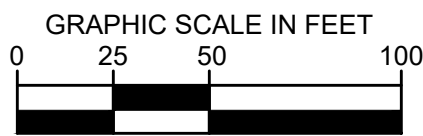
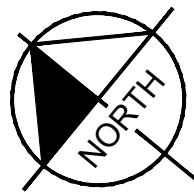


LEGEND	
— LOD —	LIMITS OF DISTURBANCE (0.74 AC)
— SF —	SILT FENCE (SEE EROSION CONTROL DETAILS)
— TP —	TREE PROTECTION FENCE (SEE EROSION CONTROL DETAILS)

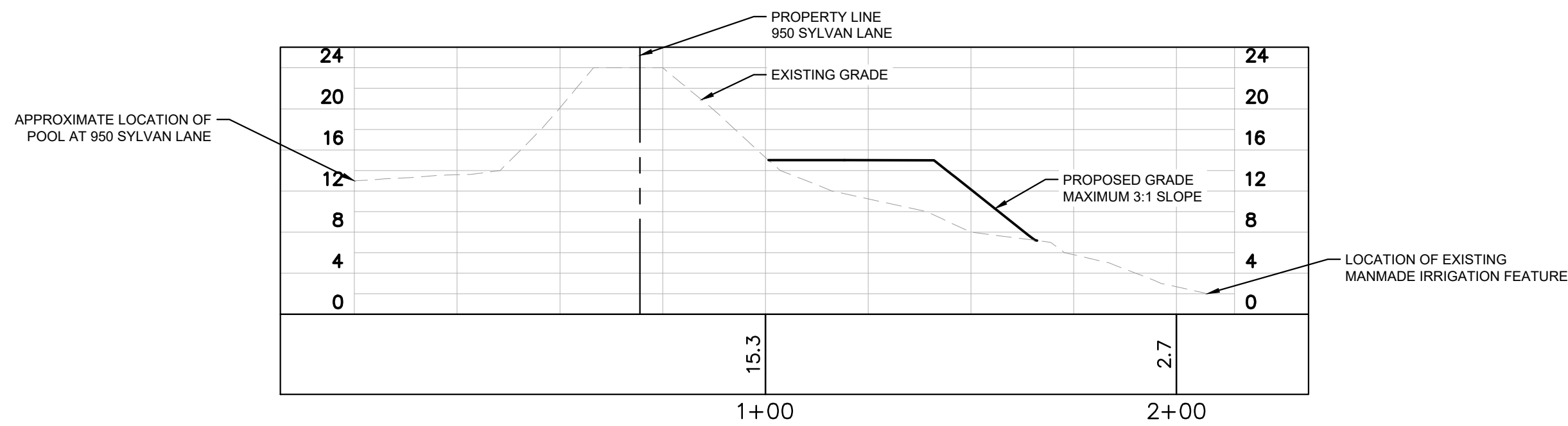
CONSTRUCTION SEQUENCE	
1. MOBILIZATION	0.5 WEEK
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, TRUCK WASH, AND SILT FENCE.	0.5 WEEK
3. MANMADE IRRIGATION FEATURE MAINTENANCE AND STOCKPILE GRADING.	3 WEEKS
4. INSTALL PERMANENT SOIL STABILIZATION MEASURES.	1 WEEK
5. REMOVE CONSTRUCTION ENTRANCE ONCE AREAS ARE STABILIZED.	0.5 WEEK
6. COLLECT SILT AND SEDIMENT AND PLACE ON SITE. PRIOR TO REMOVAL OF SILT FENCE, REMOVE SILT AND SEDIMENT FROM SEDIMENT TRAPS, ETC., AND SEED OR STABILIZE ANY RESULTING BARE AREAS PER THE DESIGN PLANS.	0.5 WEEK
7. REMOVE SILT FENCE.	1 DAY
ESTIMATED TOTAL TIME OF CONSTRUCTION: ~6 WEEKS	

THE SEQUENCE OF CONSTRUCTION SHOWN ABOVE IS A GENERAL OVERVIEW AND IS INTENDED TO CONVEY THE GENERAL CONCEPTS OF THE EROSION CONTROL DESIGN AND SHOULD NOT BE RELIED UPON FOR CONSTRUCTION PURPOSES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETAILED PHASING AND CONSTRUCTION SEQUENCING NECESSARY TO CONSTRUCT THE PROPOSED IMPROVEMENTS INCLUDED IN THESE PLANS. THE CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IMMEDIATELY, PRIOR TO AND/OR DURING CONSTRUCTION IF ANY ADDITIONAL INFORMATION ON THE CONSTRUCTION SEQUENCE IS NECESSARY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLYING WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND ALL OTHER APPLICABLE LAWS.

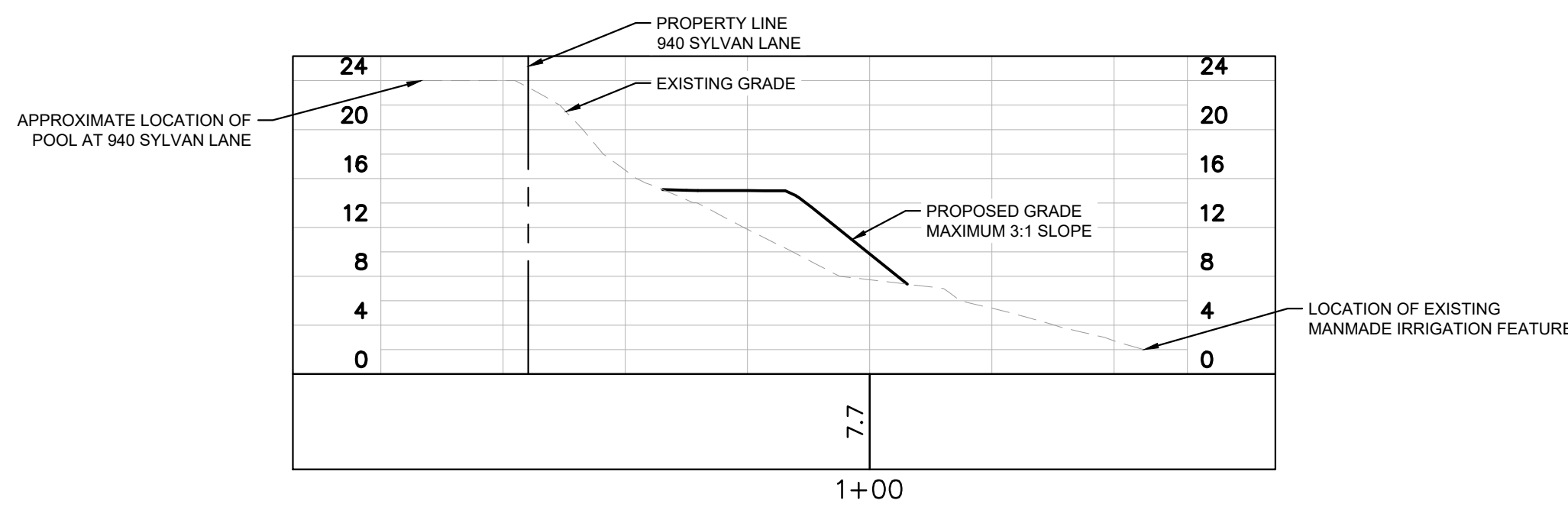
- NOTES
- EXISTING TREES ARE TO REMAIN. CONTRACTOR TO ENSURE THERE WILL BE NO DISTURBANCE OF TREES OR PLACEMENT OF SOIL UNDER THE DRIP LINE OF EXISTING TREES THROUGHOUT ALL MAINTENANCE ACTIVITIES. REFER TO TREE PROTECTION DETAIL.
 - EXISTING TOPOGRAPHY IS BASED ON 2-FT CONTOUR DATA PUBLISHED BY WESTCHESTER COUNTY GIS AS PART OF THE NEW YORK STATE DIGITAL ORTHOMAGERY PROGRAM. EXISTING TOPOGRAPHY WAS VALIDATED WITH USGS DEM AND A FIELD INSPECTION ON 03/03/2023.



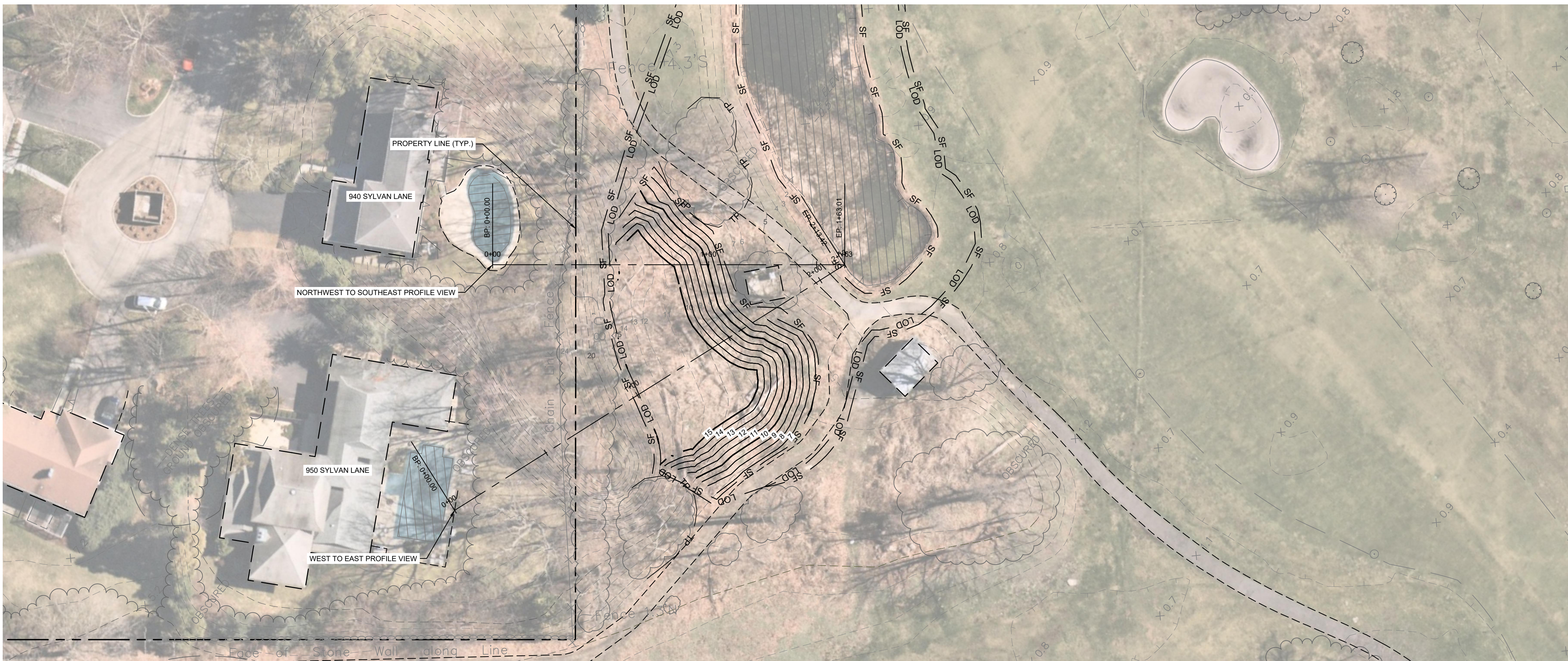
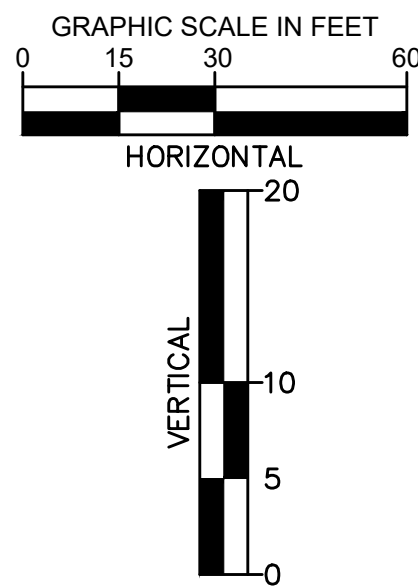
KIMLEY-HORN New York		© 2023 KIMLEY-HORN ENGINEERING AND LANDSCAPE ARCHITECTURE OF NEW YORK, P.C. 1 NORTH LEXINGTON AVENUE, SUITE 905 WHITE PLAINS, NY 10601 WWW.KIMLEY-HORN.COM	
DRAFT		REVISED PER VILLAGE CONSULTANT PLANNERS COMMENTS 05/15/2023 PEP	
HAMPSHIRE COUNTRY CLUB 1025 COVE ROAD MAMARONECK, NY 10543		VILLAGE OF MAMARONECK NEW YORK	
SHEET NUMBER C-3.1		SHEET NO. 1 OF 1	
SITE ACCESS ROUTE PLAN		DESIGNED BY: TSW DRAWN BY: PEP CHECKED BY: KVH	
HAMPSHIRE COUNTRY CLUB 1025 COVE ROAD MAMARONECK, NY 10543		VILLAGE OF MAMARONECK NEW YORK	



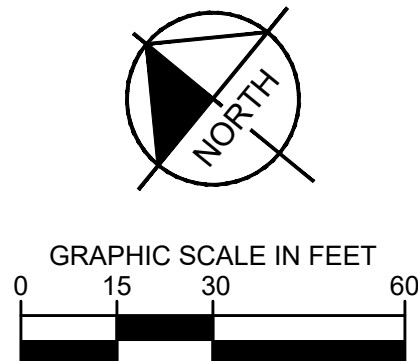
PROFILE FROM WEST TO EAST
950 SYLVAN LANE TO MANMADE IRRIGATION FEATURE



PROFILE FROM NORTHWEST TO SOUTHEAST
940 SYLVAN LANE TO MANMADE IRRIGATION FEATURE



ALIGNMENTS OF PROFILE VIEWS



DRAFT	
Kimley»Horn New York	
© 2023 KIMLEY-HORN ENGINEERING AND LANDSCAPE ARCHITECTURE OF NEW YORK, P.C. 1 NORTH LEXINGTON AVENUE, SUITE 905 WHITE PLAINS, NY 10601 WWW.KIMLEY-HORN.COM	
05/15/2023	
KHA PROJECT 112056005	DATE 03/28/2023
SCALE: AS SHOWN	TSW PEP
DESIGNED BY: KWH	CHECKED BY: KWH
STOCKPILE PROFILES	
HAMPSHIRE COUNTRY CLUB 1025 COVE ROAD MAMARONECK, NY 10543 VILLAGE OF MAMARONECK	NEW YORK
SHEET NUMBER C-3.2	
NO.	REVISIONS
DATE	BY

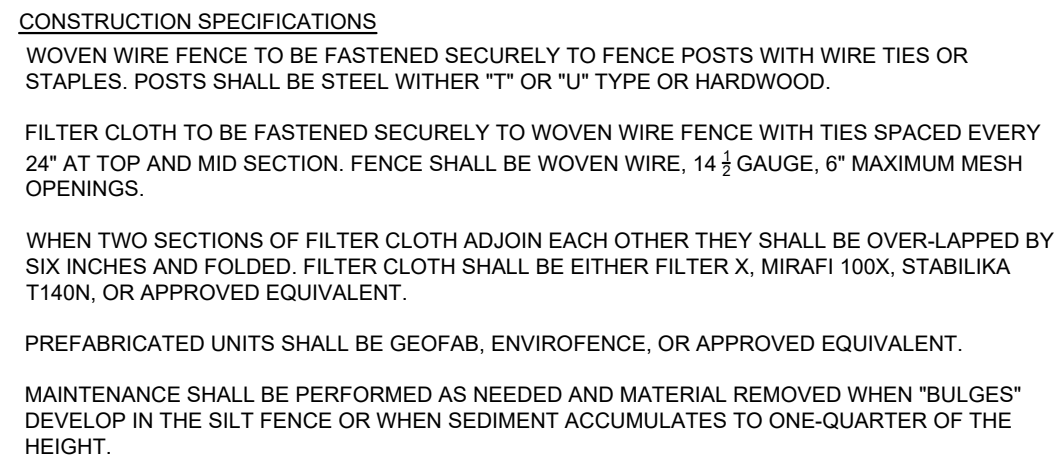


VIEW OF STOCKPILE AREA, FACING NORTHWEST



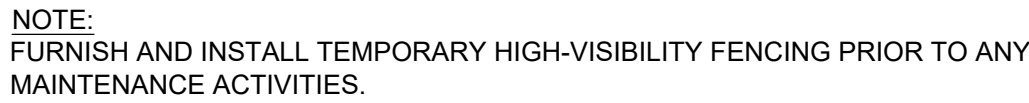
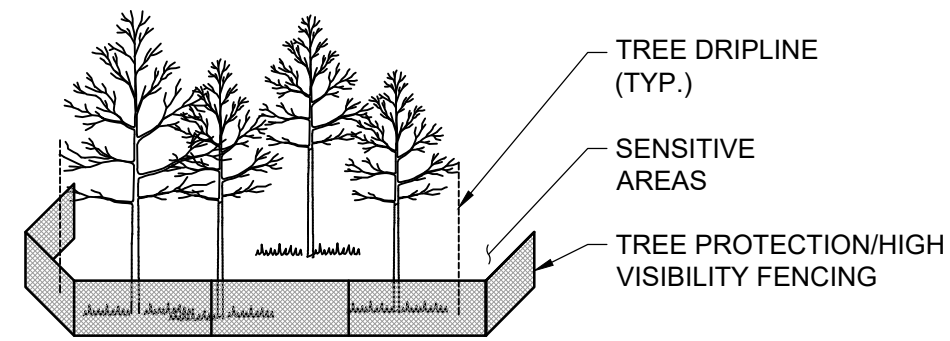
VIEW OF STOCKPILE AREA, FACING SOUTHWEST

SHEET NUMBER C-3.3	HAMPSHIRE COUNTRY CLUB 1025 COVE ROAD MAMARONECK, NY 10543 VILLAGE OF MAMARONECK	NEW YORK
PHOTOS OF PROPOSED STOCKPILE AREA		
KHA PROJECT 11206005	DATE 03/28/2023	AS SHOWN
SCALE:	TSW	
DESIGNED BY:	PREP	
DRAWN BY:		
CHECKED BY:	KKH	
		
		
DRAFT		
<div style="float: right;">NO.</div> <div style="float: right;">REVISIONS</div> <div style="clear: both;"></div>		
REVISED PER VILLAGE CONSULTANT PLANNERS COMMENTS		
DATE		
BY		

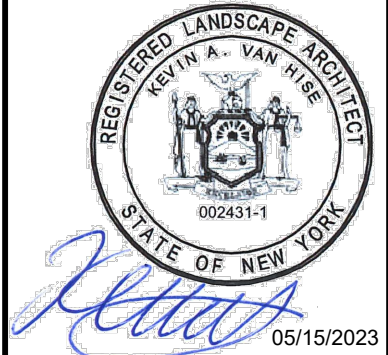


1. STONE SIZE - USE 3" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 75 FEET.
3. THICKNESS - NOT LESS THAN TWELVE (12) INCHES.
4. WIDTH - TWENTY FIVE (20) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE RIFED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DISPOSED, WASHED OR TRACED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 3:1.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SILT FENCE DETAIL ON THIS SHEET.
5. STABILIZE AS NOTED.



01	REINFORCED SILT FENCE	02	STABILIZED CONSTRUCTION ENTRANCE	03	STOCKPILE AREA	04	TREE PROTECTION FENCE
	SCALE: NTS SOURCE: NYSDEC SESC BLUE BOOK		SCALE: NTS SOURCE: NYSDEC SESC BLUE BOOK		SCALE: NTS SOURCE: KIMLEY-HORN (ADAPTED FROM NYSDEC SESC BLUE BOOK)		SCALE: NTS SOURCE: KIMLEY-HORN



KHA PROJECT	112056005	DATE	03/28/2023
SCALE:		AS SHOWN	
DESIGNED BY:		TSW	
DRAWN BY:		PEP	
CHECKED BY:		KVH	

GRADING AND EROSION & SEDIMENT CONTROL DETAILS

**HAMPSHIRE
COUNTRY CLUB**
1025 COVE ROAD
MAMARONECK, NY 10543

SHEET NUMBER
C-3.4

APPENDIX 8 - AMENDMENT LOG

END OF SWPPP