# Appendix B \

Wetland Delineation Report

June 1, 2023
**Revised: February 13, 2024**

Dennis Lynch, P.E.
MJ Engineering & Land Surveying, P.C.
831 Route 52, Suite 2C
Fishkill, NY 12524
(845) 240 - 2412

**Re: Wetland Delineation Report**
**Blue Rill Day Camp – 440 Saddle River Road**
**Village of Airmont, Rockland County, NY**

Dear Mr. Lynch,

In accordance with our Scope of Services, Hunt Engineers, Architects, Land Surveyors & Landscape Architects (HUNT-EAS) performed a wetland investigation at the project area located at Blue Rill Day Camp at 440 Saddle River Road (Tax ID #s: 62.11-2-10/62.11-2-8) in the Village of Airmont, Rockland County, New York (hereinafter referred to as the Subject Property or Site). This investigation and delineation were facilitated on behalf of MJ Engineering & Land Surveying (MJ) on May 26th, 2023. The intent of the visit was to identify and delineate the boundaries of wetlands and Waters of the United States (WOTUS).

*Methodology*

Wetland boundaries within the project study area were delineated using the federal criteria for wetland vegetation, wetland hydrology, and hydric soils (United States Army Corps of Engineers [USACE] 1987, USACE 2012). All of the wetlands identified within the project corridor were delineated using the Routine On-Site Method. In addition to the USACE 1987 Wetland Delineation manual, the delineation effort was completed per the guidelines of the USACE Northcentral and Northeast Regional Supplement.

*Desktop Resource Review*

The project area totals approximately 18 acres of mixed habitat. The site is located on the west side of Saddle River Road and is a youth day camp, primarily consisting of recreational structures in association with the camp.

The Site along Saddle River Road is adjoined primarily by residential structures and a municipal property. The Environmental Resource Mapper (ERM) does not indicate the presence of any wetlands; however, it does depict one New York State Department of Environmental Conservation (NYSDEC) freshwater stream

onsite along the west border of the Subject Property, mapped concurrently with Saddle River. Within the Subject property, certain portions of this stream are listed as Class C (C) while other portions are listed as Class B (B). The National Wetlands Inventory (NWI) mapper indicates the presence of several riverine wetlands and one (1) freshwater pond.

Prior to the field survey effort, several sources were consulted to obtain background information including:

- NYSDEC ERM;
- NWI Maps published by the USFWS;
- Rockland County Soil Survey Map;
- Federal Emergency Management Agency (FEMA) floodplain mapping; and
- Aerial photography, and contour mapping.

The county soil survey shows that the site contains the following mapped soils: Alden silt loam (Ad), Wethersfield gravelly silt loam, three-to-eight percent slopes (WeB), Wethersfield gravelly silt loam, eight-to-15 percent slopes (WeC), and Wethersfield-Urban land complex, two-to-eight percent slopes (WuB). Soil map unit WeB is considered prime farmland and soil map unit WeC is considered farmland of statewide importance. Soil map units WeB, WeC, and WuB are classified as well drained soils, soil map unit Ad is classified as very poorly drained soils. Soil map unit is the only soil classified as a hydric soil, with a hydric soil rating of 100% (see attached Hydric Soil Rating Map).

*Delineation Findings*

This wetland delineation effort resulted in the identification of one (1) wetland, one (1) stream, and one (1) pond. The resource boundaries are identified per the attached Figure 3. Ordinary High-Water Marks (OHWM), recorded as GPS points, were determined based on the presence of hydrology and stream bank characteristics.

*Wetlands*

Wetland A is a mixed palustrine emergent marsh and palustrine forested wetland (PEM/PFO) that covers approximately 0.15 acre (ac) at the northwest portion of the Subject Property. Wetland A is dominated by hydrophytic vegetation such as common reed (*Phragmites australis*) and red maple (*Acer rubrum*). Several indicators of hydrology were observed including presence of reduced iron and saturation. Hydric sandy loam soils were observed. Wetland A is adjacent to Stream 1; as such, Wetland A is under jurisdiction of the USACE.

*Streams*

Stream 1 is a perennial stream that flows south for approximately 1,396 linear feet (LF) onsite from the northwest corner of the Subject Property to where it flows offsite at the southwest corner. Stream 1 is approximately four (4) feet wide and six (6) inches deep at the OHWM with cobbles and gravel substrate. Stream 1 is mapped concurrently with Saddle River, a NYSDEC Class B (B) and Class C(C) freshwater stream. Portions of the stream mapped as a Class B(B) stream are under jurisdiction of the USACE and NYSDEC. Portions of the stream mapped as Class C(C) are under the jurisdiction of the USACE only.

*Ponds*

Pond 1 is a 0.45 acre freshwater pond centrally located along the west border of the Subject Property. Pond 1 appeared to be multiple feet deep with mucky substrate at the time of delineation. One culvert is present along the west edge of the pond. However, the culvert is for highwater events in the pond and does not create a continuous connection between Pond 1 and Stream 1. Based on the August 2023 revision to the definition of WOTUS, Pond 1 is an isolated resource and not jurisdictional to the USACE.

**Table 1: Summary of Aquatic Resources on Site**

| **Wetland ID** | **Classification** | **Area/Length Onsite** | **Coordinates** | **Jurisdiction** |
|---|---|---|---|---|
| Wetland A | PEM/PFO | 0.15 ac | 41.093051, -74.078342 | USACE |
| Stream 1 | Perennial | 1,396 LF | 41.091361, -74.079104 | USACE/NYSDEC* |
| Pond 1 | Pond | 0.45 ac | 41.090843, -74.079222 | Not Jurisdictional |

*Portions of the stream identified as Class B(B) are under the jurisdiction of the NYSDEC.

A Jurisdictional Determination (JD) should be requested from the USACE if development is pursued within wetlands.

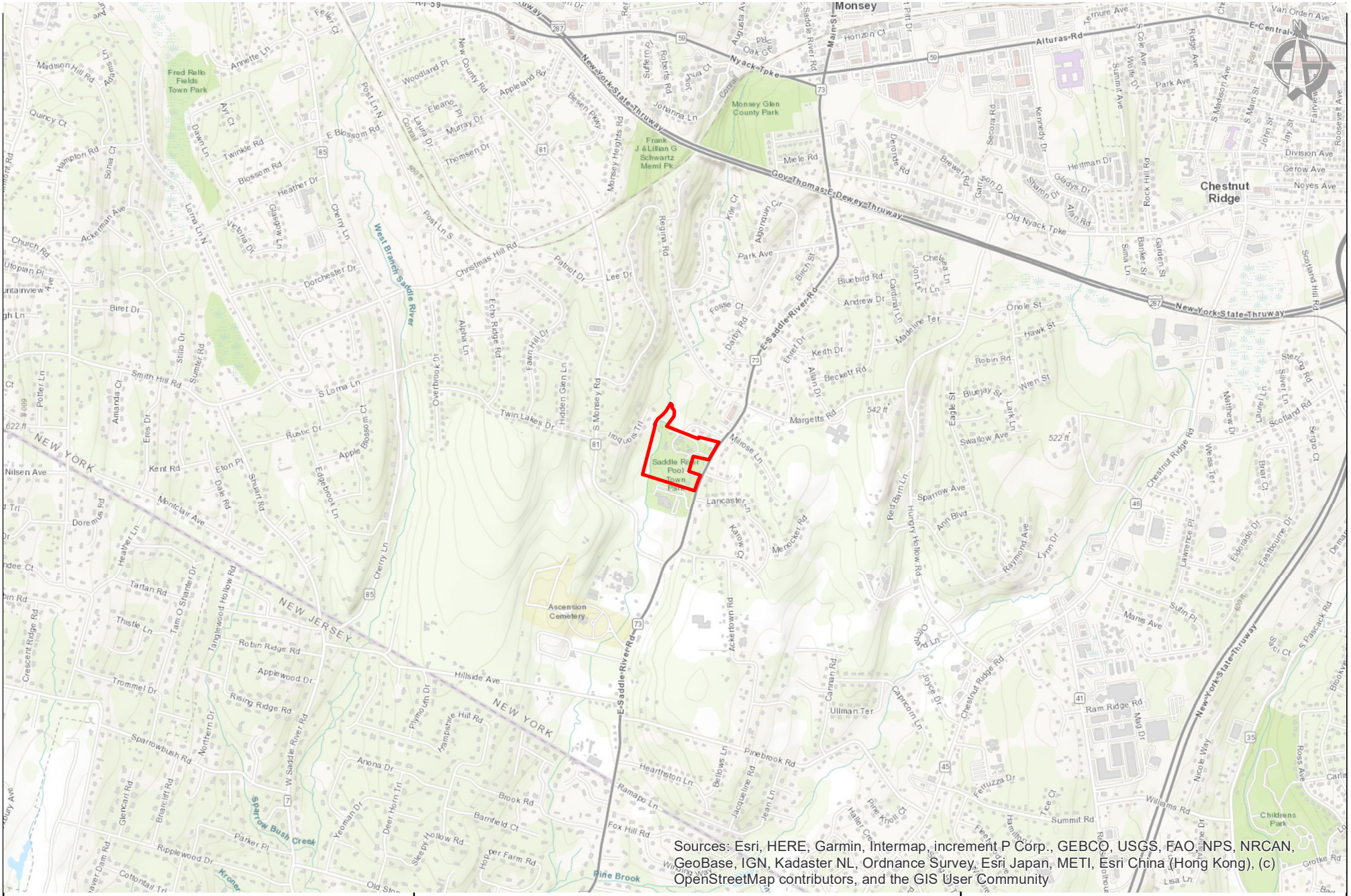
If you have any questions or require additional information, please do not hesitate to contact me in our Albany Office at marinor@hunt-eas.com.

Very truly yours,
**HUNT Engineers, Architects, Surveyors**

Raymond Marino
*Environmental Scientist III*

Enclosures

- Figure 1 – Subject Property Location Map
- Figure 2 – Subject Property Boundary Map
- Figure 3 – Wetland Delineation Map
- Wetland Delineation Photo Sheet
- Hydric Rating Soils Map




**Legend**

Project Boundary

**FIGURE 1**
**Project Location Map**

**Blue Rill Day Camp - 440 Saddle Brook Road**
**Airmont, New York**
**Rockland County**

HUNT ENGINEERS | ARCHITECTS | SURVEYORS

Feet
0 625 1,250 2,500 3,750 5,000
1 inch = 2,000 feet
1:24,000

County Coverage: Rockland

Date Prepared: November 2023

Client Name: MJ Engineering

Path: E:\2023\2371.015 - MJE Blue Rill Day Camp\Graphics\Figure 1 - Project Location Map May 2023.mxd


**Legend**

Project Boundary

Photograph Locations

**FIGURE 2**
**Project Boundary Map**

HUNT ENGINEERS | ARCHITECTS | SURVEYORS

**Blue Rill Day Camp - 440 Saddle Brook Road**
**Airmont, New York**
**Rockland County**

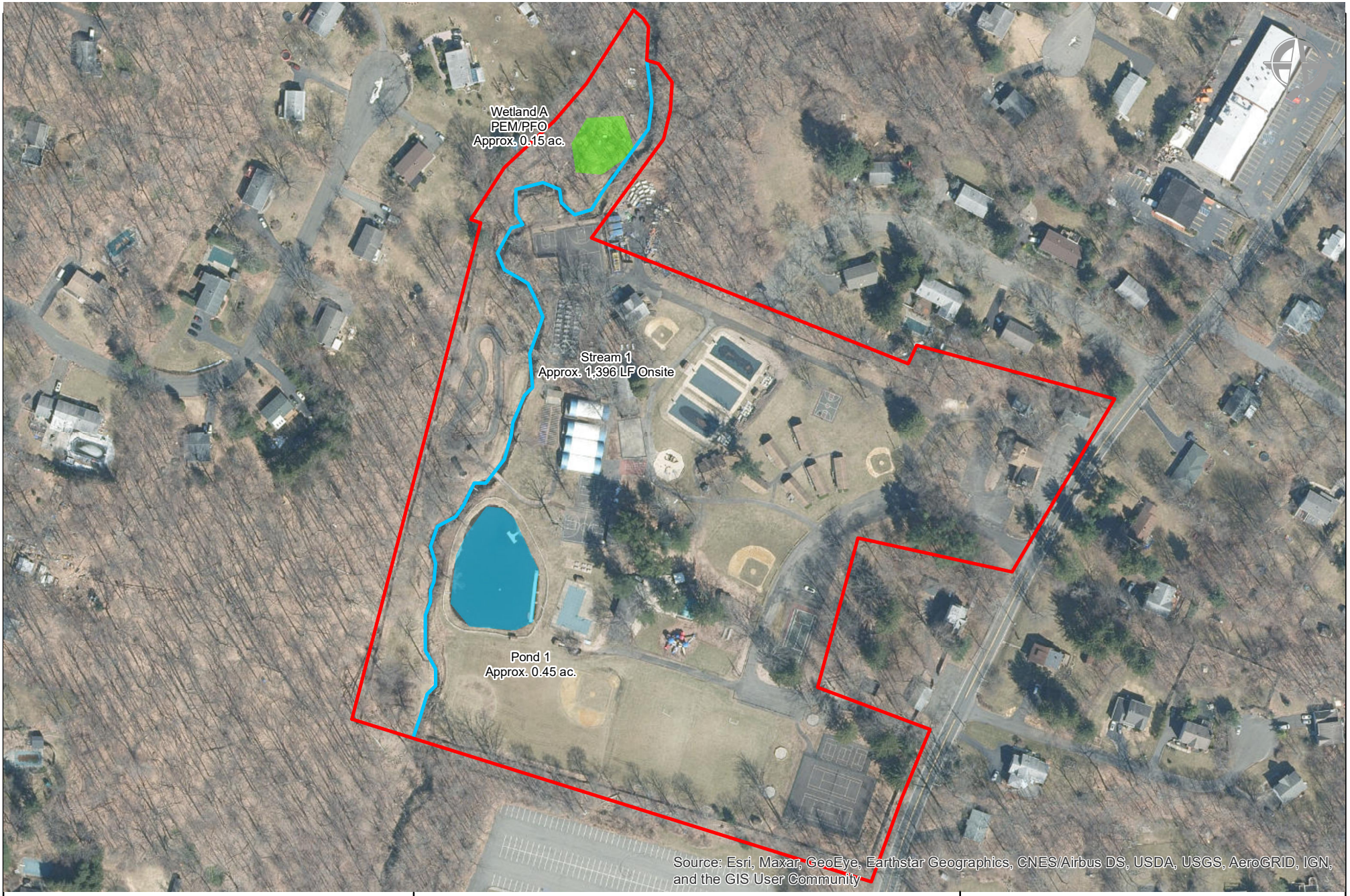
Feet
0 62.5 125 250 375 500
1 inch = 200 feet
1:2,400

County Coverage: Rockland

Date Prepared: November 2023

Client Name: MJ Engineering

Path: E:\2023\2371.015 - MJE Blue Rill Day Camp\Graphics\Figure 2 - Project Boundary Map May 2023.mxd




**Legend**

- Project Boundary
- Stream
- Wetlands
- Pond

**FIGURE 3**
**Wetland Delineation Map**

HUNT ENGINEERS | ARCHITECTS | SURVEYORS

**Blue Rill Day Camp - 440 Saddle Brook Road**
**Airmont, New York**
**Rockland County**

Feet
0 62.5 125 250 375 500
1 inch = 200 feet
1:2,400

County Coverage: Rockland

Date Prepared: November 2023

Client Name: MJ Engineering

Path: E:\2023\2371.015 - MJE Blue Rill Day Camp\Graphics\Figure 3 - WLD Map.mxd

HUNT ENGINEERS | ARCHITECTS | SURVEYORS

# PHOTOGRAPH LOG

| |
|---|
| Project Name & Job Number: Blue Rill Day Camp – 2371.015 |
| Project Address(es): 440 Saddle River Road, Airmont NY – Rockland County |

Photo Number: 1
Photo Date: 5/26/2023
Photo Location: East central portion of Subject Property.
Direction Facing: Southwest
Photo Description: View of camp from parking lot.

Photo Number: 2
Photo Date: 5/26/2023
Photo Location: Northwest portion of Subject Property.
Direction Facing: Southeast
Photo Description: Representative view of Wetland A.

Photo Number: 3
Photo Date: 5/26/2023
Photo Location: West central portion of Subject Property.
Direction Facing: Northwest
Photo Description: Representative view of Stream 1.

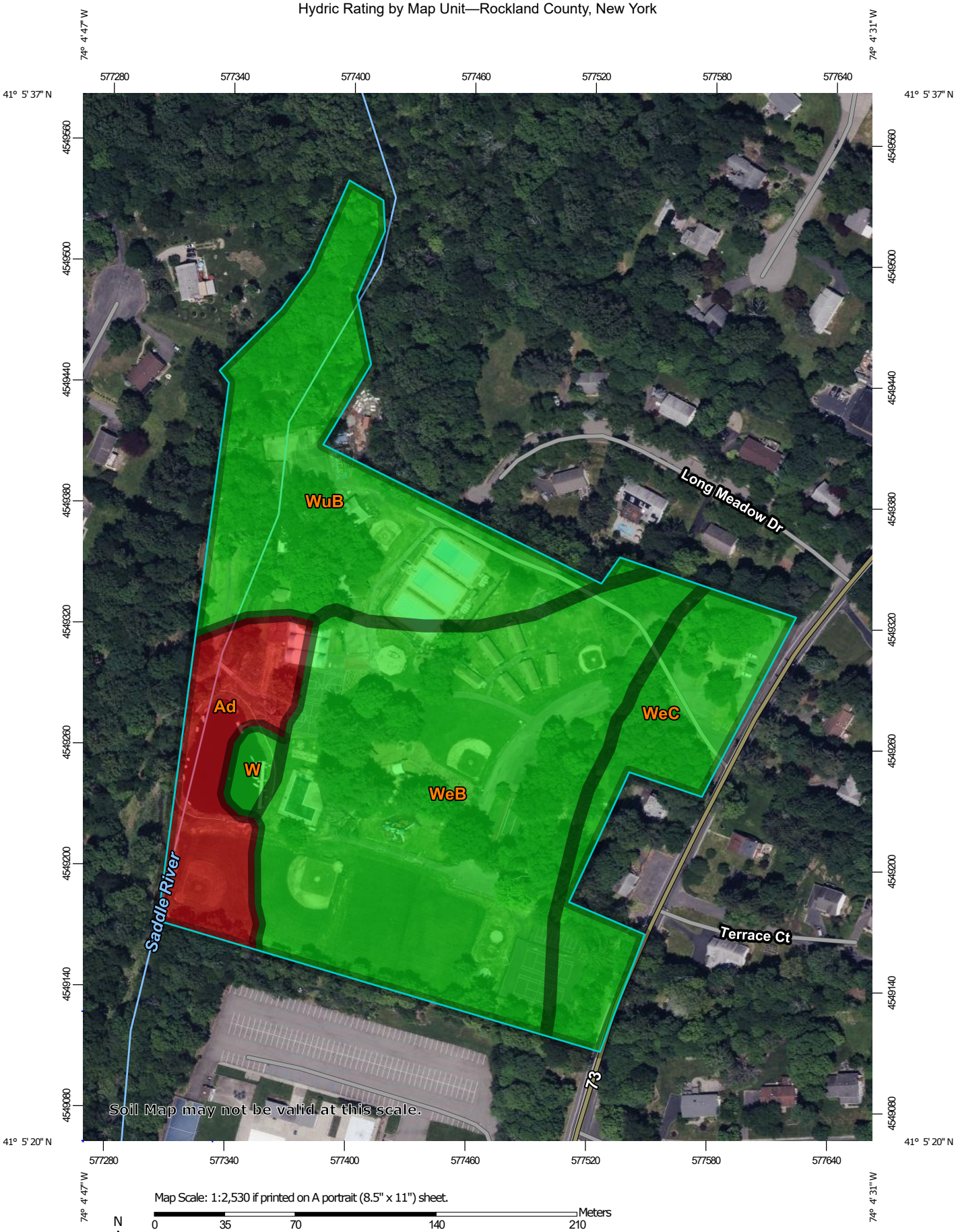
Photo Number: 4
Photo Date: 5/26/2023
Photo Location: West central portion of Subject Property.
Direction Facing: South
Photo Description: Representative view of Pond 1.

Photo Number: 5
Photo Date: 5/26/2023
Photo Location: West of Pond 1.
Direction Facing: Southeast
Photo Description: Culvert connecting Pond 1 to Stream 1.

Photo Number: 6
Photo Date: 5/26/2023
Photo Location: North portion of Subject Property.
Direction Facing: South
Photo Description: Culvert beneath basketball court connecting to Stream 1.

Photo Number: 7
Photo Date: 5/26/2023
Photo Location: Southwest corner of Subject Property.
Direction Facing: Southwest
Photo Description: Representative view of upland field.

# Hydric Rating by Map Unit—Rockland County, New York




Map Scale: 1:2,530 if printed on A portrait (8.5" x 11") sheet.

N

0 35 70 140 210 Meters

0 100 200 400 600 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

## MAP LEGEND

**Area of Interest (AOI)**

- Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**

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

**Soil Rating Lines**

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

**Soil Rating Points**

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

**Water Features**

- Streams and Canals

**Transportation**

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

**Background**

- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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: Rockland County, New York
Survey Area Data: Version 20, 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: May 31, 2022—Oct 27, 2022

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

# Hydric Rating by Map Unit

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| Ad | Alden silt loam | 100 | 1.7 | 10.5% |
| W | Water | 0 | 0.2 | 1.4% |
| WeB | Wethersfield gravelly silt loam, 3 to 8 percent slopes | 0 | 7.6 | 47.3% |
| WeC | Wethersfield gravelly silt loam, 8 to 15 percent slopes | 0 | 2.1 | 13.2% |
| WuB | Wethersfield-Urban land complex, 2 to 8 percent slopes | 0 | 4.4 | 27.5% |
| **Totals for Area of Interest** | | | **16.1** | **100.0%** |

## Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

## Rating Options

*Aggregation Method:* Percent Present

*Component Percent Cutoff: None Specified*

*Tie-break Rule:* Lower