Ecological Analysis LLC

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March 8, 2022

Mr. Rivie Schwebel
Luxor Development, LLC
1059 East 9th Street
Brooklyn, NY 11230

RE: Wetlands Report
Luxor Junior Estates
SBL: 12.-1-41.5
Town of Fallsburg, Sullivan County

Dear Mr. Schwebel,

On January 6, 2022, a wetland delineation was conducted as requested on the above referenced parcel, a property of approximately 43 acres in size. The site was walked and a field investigation completed to determine if there were any areas in question that met any of the definitions of regulated wetland areas by either the Army Corps of Engineers (ACOE) or the New York State Department of Environmental Conservation (NYSDEC).

Before conducting the field investigation, we reviewed online Federal and State aerial, soils, and wetland mappings of the referenced properties. These sources assist in identifying if there are any remotely mapped wetlands on the property as well as any other areas where we should verify whether or not the field conditions match the mapped resources that we reviewed.

The online Federal mapping resources of the USFWS National Wetland Inventory (NWI)[1], shown on the attached aerial mapping of the property and its environs, indicated that there were no mapped wetlands on the property.

The online NYSDEC Wetlands mapper resource does not show any state regulated wetland on this site. The nearest mapped state wetland is LE-28 that is located approximately 0.6 miles to the northwest of the site as shown on the attached NYSDEC Environmental Resource Mapper figure.

The field investigation was conducted in accordance to the 2012 Northcentral and Northeast Regional Supplement to the ACOE 1987 manual[2]. All upland and any wetland areas on an investigated property would be determined by observing plant species, hydrology, and soil types and conditions in accordance with those Regional Supplement guidelines. Any areas meeting the wetland conditions set forth by the guidelines would then be marked by hanging sequentially numbered "Wetland Delineation" tape flags around the observed perimeter of each wetland. There were three areas of this parcel that met the wetland criteria of the ACOE, but no areas that met the wetland criteria of the NYSDEC. The three areas that were identified as designated NWI wetlands were flagged and subsequently surveyed.

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[1] The wetland information displayed on the USFWS NWI mapping website shows wetland type and extent using a biological definition of wetlands. There is no attempt on their website to define the actual limits of proprietary jurisdiction of any Federal, state, or local government, or to establish the geographical scope of the regulatory programs of government agencies. The FWS does not maintain, and is not responsible for the accuracy or completeness of the base cartographic information depicted on such maps.

[2] ACOE, 1987, Corps of Engineers Wetlands Delineation Manual, 11 Technical Report Y-87-1.

As stated, during our field investigation of this parcel, there were three wetland areas located on the property. These wetlands each had a Cowardin[3] classification of PFO1E, which denotes an area of broad-leaved deciduous forest wetland that has seasonally flooded or saturated soils.

A set of ACOE compliant wetland delineation/determination data sheets (WetForms) has been filled out for a representative wetland on the property and for a nearby plot of upland forest. These datasets describe the vegetation, soils conditions, and the hydrology observed in both wetland and the upland areas of the site. Copies of these WetForm datasheets are enclosed for these two plots.

Vegetation

The vegetation observed within the flagged wetland portions of this site included several tree and woody bush species, various forbs, sedges, grasses, ferns, and sphagnum mosses. Tree species present include yellow birch, red maple, and green ash. Woody understory bushes included high bush blueberries (*Vaccinium corymbosum*) and common winterberry (*Ilex verticillata*). Groundstory vegetation included sphagnum mosses, sensitive fern (*Onoclea sensibilis*), wood fern (*Dryopteris intermedia),* mannagrass (*Glyceria melicaria*), and bitter dock (*Rumex obtusifolius*). These are all species indicative of wetlands.

The plants dominating upland areas were similarly mostly those of the several mature tree species within the wooded portions of these partially forested parcels. These include: red maple (*Acer rubrum*), eastern white pine (*Pinus strobus*), black cherry (*Prunus serotina*), and sugar maple (*A. saccharum*). Underneath the nearly fully closed canopy formed by these trees, the understory vegetation was sparsely present, occurring only in areas of patchy coverage. The herb stratum which was present in areas, consisted mostly of clubmosses, including princess pine (*Dendrolycopodium obscurum*), groundpine (*D. dendroideum*), and running clubmoss (*Lycopodium clavatum*), This community of species is consistent with upland (dryland) areas.

Soils

Both the Sullivan County Soil Survey and the United States Department of Agriculture (USDA) online web soil survey from the Natural Resources Conservation Service (NRCS)[4] were reviewed to verify if there were any potential hydric (wetland) soils on property. A copy of the USDA/NRCS soil report for the property is included for your use, showing the landscape scale distribution of soils on and in the vicinity of the site. The two mapped soil units for this parcel were entirely of non-hydric (upland) soils as shown on the attached USDA/NRCS mapped soil survey. These two soils were Wellsboro (We) gravelly or stony loams and Oquaga (Oe) channery silt loams

The wetland pockets flagged on this property formed in several areas of shallow depressions that were observed to be flooded and saturated at the time of this survey. Soil samples taken within the wetland areas were noted to be marked with indicators of hydric soils as indicated on the attached WetForm for Wetland "C."

As mentioned above, upland (dryland) soils dominate on the property. These are areas of soils that have formed in areas of nearly level glacial till plains or on the more steeply sloped terrains on the sides of low hills. These soils are characterized as being very deep, moderately well drained soils. These soils do not maintain proper hydrology to be wetland soils as they dry out during the growing season.

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[3] Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

[4] Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: http://websoilsurvey.sc.egov.usda.gov/. Accessed [June 21, 2021].

Hydrology

As required by the 2012 Northcentral and Northeast Regional Supplement to the ACOE 1987 manual, the hydrology of the property and any potential wetland area was observed.

The wetland areas on this site derive their hydrology either from several hillside seeps and their associated drainages, or from runoff from adjacent residential properties along the borders of the property. The area flagged as Wetland "C" is located within the interior, forested portion of the site. This depressional area is in a hillslope portion of the site and it receives runoff from the surrounding upland area through groundwater seepage and diffuse overland flows. Wetland "C" was observed to be shallowly flooded throughout most of its areal extent during our visit, while having soils throughout that were noted to be flooded or saturated within the upper 12 inches.

Conclusions

The wetland areas of this property, as currently flagged, would not be within the jurisdiction of the NYSDEC.

Those wetland areas of this property which are determined by the ACOE to be hydrologically connected by overland flows to a navigable waterway, or to other ACOE-regulated surface waters or wetlands, are subject to the regulatory jurisdiction of the ACOE, per the provisions of Section 404 of the Clean Water Act. Therefore, prior to any disturbance of any portion of these wetlands or watercourses, between the Ordinary High Water Marks, an ACOE Jurisdictional Determination should be sought and obtained from the New York City office of the ACOE. And, if necessary subsequent to that determination, a permit, or permits, may be required from that same office.

All rivers, streams, and tributaries that are classified by the NYSDEC under Article 15 regulations as C(t), B, or A are protected by that agency. The channel portions of such water bodies are protected, and Additionally, the agency map define up to a 50-foot buffer area on either side of the channel, where that portion of the streambank is formed of a gradual and uniform slope of less than 45 degrees.

Ecological Analysis is grateful to have had this opportunity to be of service on this project and looks forward to the opportunity to work with you in the future. Feel free to call if you have any questions or if we can be of further assistance.

Sincerely yours,

Bruce R. Friedmann

Bruce R. Friedmann
Senior Environmental Scientist
Ecological Analysis, LLC

Attachments:

USFWS NWI aerial mapping of property environs
NYSDEC Environmental Resource wetlands mapping of property environs
USDA/NRCS Soil Survey of property environs
Wetland "C" WetForm data sheet set
Upland WetForm data sheet set

U.S. Fish and Wildlife Service

National Wetlands Inventory

Luxor Junior Estates

March 8, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Luxor Junior Estates

March 8, 2022

1:18,056

0 0.15 0.3 0.6 mi

0 0.28 0.55 1.1 km

- *Project Site*
- *State Regulated Freshwater Wetlands*
- *State Regulated 500' Wetland Checkzone*

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Author: NYSDEC Environmental Resources Mapper
Not a legal document

Soil Map—Sullivan County, New York
(Luxor Junior Estates)

Map Scale: 1:4,860 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

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 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 1:15,800.

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

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

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

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

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

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

Soil Survey Area: Sullivan County, New York
Survey Area Data: Version 20, Aug 29, 2021

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

Date(s) aerial images were photographed: Data not available.

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
AoC	Arnot-Oquaga complex, 0 to 15 percent slopes, very rocky	4.2	3.9%
AoE	Arnot-Oquaga complex, 15 to 35 percent slopes, very rocky	0.3	0.3%
Nf	Neversink and Alden soils, very stony	4.2	3.9%
OeB	Oquaga very channery silt loam, 3 to 8 percent slopes	25.7	23.9%
OgD	Oquaga-Arnot complex, 15 to 25 percent slopes	7.3	6.8%
W	Water	1.6	1.5%
WeB	Wellsboro gravelly loam, 3 to 8 percent slopes	52.8	49.2%
WeC	Wellsboro gravelly loam, 8 to 15 percent slopes	2.6	2.4%
WlC	Wellsboro and Wurtsboro soils, strongly sloping, extremely stony	8.5	8.0%
Totals for Area of Interest		**107.2**	**100.0%**

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Luxor Junior Estates **City/County:** Fallsburg, Sullivan County **Sampling Date:** 06-Jan-22

Applicant/Owner: Mr. Rivie Schwebel **State:** NY **Sampling Point:** Wetland C

Investigator(s): Bruce Friedmann **Section, Township, Range:** S. 12 T. 1 R. 41.5

Landform (hillslope, terrace, etc.): Hillside **Local relief (concave, convex, none):** concave **Slope:** 3.0 % / 1.7

Subregion (LRR or MLRA): LRR R **Lat.:** 41.778155 **Long.:** -74.648059 **Datum:** WGS 84

Soil Map Unit Name: Nf - Neversink and Alden soils - very stony **NWI classification:** PFO1B

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

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

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

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ◉ No ○	**Is the Sampled Area within a Wetland?**	Yes ◉ No ○
Hydric Soil Present?	Yes ◉ No ○		
Wetland Hydrology Present?	Yes ◉ No ○		

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

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of 2 required)

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

Field Observations:

Surface Water Present?	Yes ◉ No ○	Depth (inches): 2		
Water Table Present?	Yes ◉ No ○	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes ◉ No ○	Depth (inches):	**Wetland Hydrology Present?**	Yes ◉ No ○

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: Wetland C

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. *Acer rubrum*	50	☑	98.0%	FAC
2. *Fraxinus pennsylvanica*	1	☐	2.0%	FACW
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
	51	= Total Cover		
Sapling/Shrub Stratum (Plot size: 10)				
1. *Vaccinium corymbosum*	30	☑	96.8%	FACW
2. *Ilex verticillata*	1	☐	3.2%	FACW
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
	31	= Total Cover		
Herb Stratum (Plot size: 5)				
1. *Dryopteris intermedia*	10	☑	58.8%	FAC
2. *Glyceria melicaria*	5	☑	29.4%	OBL
3. *Onoclea sensibilis*	1	☐	5.9%	FACW
4. *Rumex obtusifolius*	1	☐	5.9%	FAC
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
11.	0	☐	0.0%	
12.	0	☐	0.0%	
	17	= Total Cover		
Woody Vine Stratum (Plot size: 5)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

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

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	5	x 1 =	5	
FACW species	33	x 2 =	66	
FAC species	61	x 3 =	183	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	99	(A)	254	(B)

Prevalence Index = B/A = 2.566

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FW

Soil

Sampling Point: Wetland C

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc[2]	Texture	Remarks
0-3	7.5YR	4/2	100						Loam	
3-5	10YR	5/2	90	10YR	5/8	10	RM	M	Loam	
5-14	5YR	5/2	90	7.5YR	5/8	10	RM	M	Gravelly loam	A few rock fragments
14-18	7.5YR	5/4	90	10YR	6/2	10	RM	M	Coarse Sandy Loam	Many rock fragments

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils : [3]

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

Plot ID: **Wetland C**

Photo Path: \\EA-SERVER\Company\180.00122 Luxor Junior Estates Wetland

Photo File: **DSCN7041.JP** Orientation: Northeast -facing

Lat/Long or UTM : Long/Easting: **-74.648059** Lat/Northing: **41.778155**

Description:

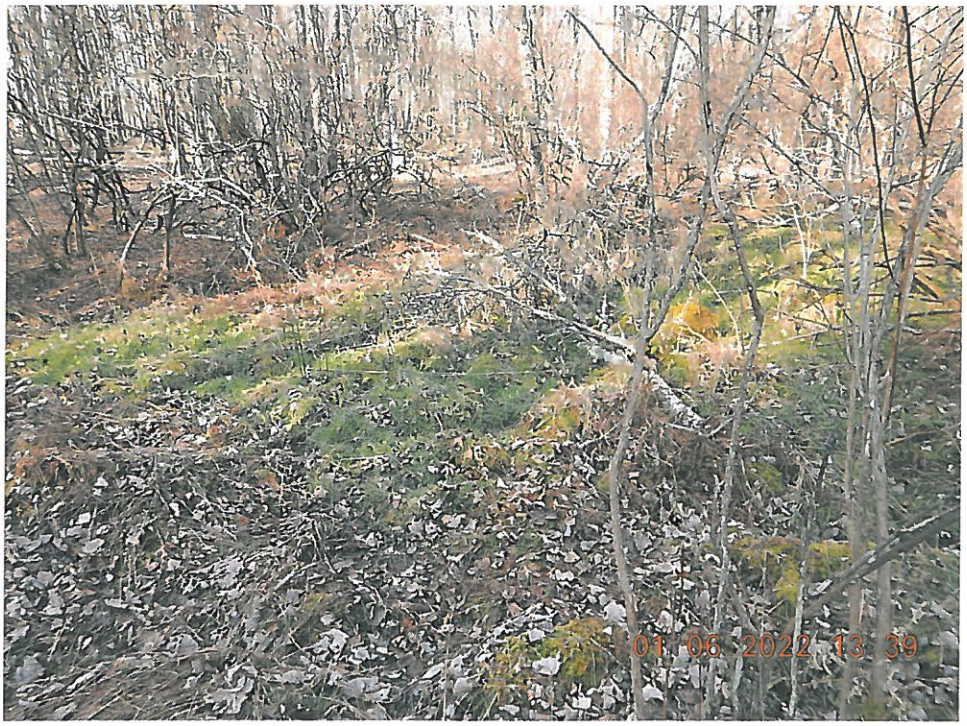

Photo File: **DSCN7040.JPG** Orientation: Northwest -facing

Lat/Long or UTM: Long/Easting: **-74.648059** Lat/Northing: **41.778155**

Description:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Luxor Junior Estates **City/County:** Fallsburg, Sullivan County **Sampling Date:** 06-Jan-22

Applicant/Owner: Mr. Rivie Schwebel **State:** NY **Sampling Point:** UPLAND

Investigator(s): Bruce Friedmann **Section, Township, Range:** S. 12 T. 1 R. 41.5

Landform (hillslope, terrace, etc.): Hillside **Local relief (concave, convex, none):** convex **Slope:** 0.0 % / 0.0

Subregion (LRR or MLRA): LRR R **Lat.:** 41.779135 **Long.:** -74.648360 **Datum:** WGS 84

Soil Map Unit Name: WeB - Wellsboro gravelly loam on 3-8 percent slopes **NWI classification:** Upland

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

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

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

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ○ No ◉	**Is the Sampled Area within a Wetland?**	Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉		
Wetland Hydrology Present?	Yes ○ No ◉		

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

Hydrology

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of 2 required)

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

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: UPLAND

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. *Acer rubrum*	90	☑	92.8%	FAC
2. *Pinus strobus*	5	☐	5.2%	FACU
3. *Prunus serotina*	1	☐	1.0%	FACU
4. *Acer saccharum*	1	☐	1.0%	FACU
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
	97	= Total Cover		
Sapling/Shrub Stratum (Plot size: 10)				
1. *Kalmia latifolia*	1	☐	100.0%	FACU
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
	1	= Total Cover		
Herb Stratum (Plot size: 5)				
1. *Dendrolycopodium obscurum*	10	☑	62.5%	FACU
2. *Dendrolycopodium dendroideum*	5	☑	31.3%	FACU
3. *Lycopodium clavatum*	1	☐	6.3%	FAC
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
11.	0	☐	0.0%	
12.	0	☐	0.0%	
	16	= Total Cover		
Woody Vine Stratum (Plot size: 5)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	91	x 3 =	273	
FACU species	23	x 4 =	92	
UPL species	0	x 5 =	0	
Column Totals:	114	(A)	365	(B)

Prevalence Index = B/A = 3.202

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FW

Soil

Sampling Point: UPLAND

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type [1]	Loc[2]	Texture	Remarks
0-7	5YR	3/3	100					Gravelly loam	Many rock fragments
7-15	5YR	4/4	100					Loam	A few rock fragments
15-18	5YR	5/4	90	7.5YR	5/6	10	RM	M	Gravelly loam	Many rock fragments

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils : [3]

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Plot ID: **UPLAND**

Photo Path: \\EA-SERVER\Company\180.00122 Luxor Junior Estates Wetland

Photo File: **DSCN7030.JP** Orientation: Northwest -facing

Lat/Long or UTM : Long/Easting: **-74.648360** Lat/Northing: **41.779135**

Description:

Photo File: **DSCN7031.JPG** Orientation: North -facing

Lat/Long or UTM: Long/Easting: **-74.648360** Lat/Northing: **41.779135**

Description: