DELINEATION OF APA REGULATED AQUATIC RESOURCES

Woodward Lake Properties

Towns of Northampton and Mayfield
Fulton County, New York

Prepared For:

Woodward Lake Properties, LLC
155 Main Street – Suite D
Oneonta, New York 13820

Prepared By:

NCES
NORTH COUNTRY ECOLOGICAL SERVICES, INC.
25 West Fulton Street - 3rd Floor Suite
Gloversville, New York 12078

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Table of Contents

1.0 INTRODUCTION

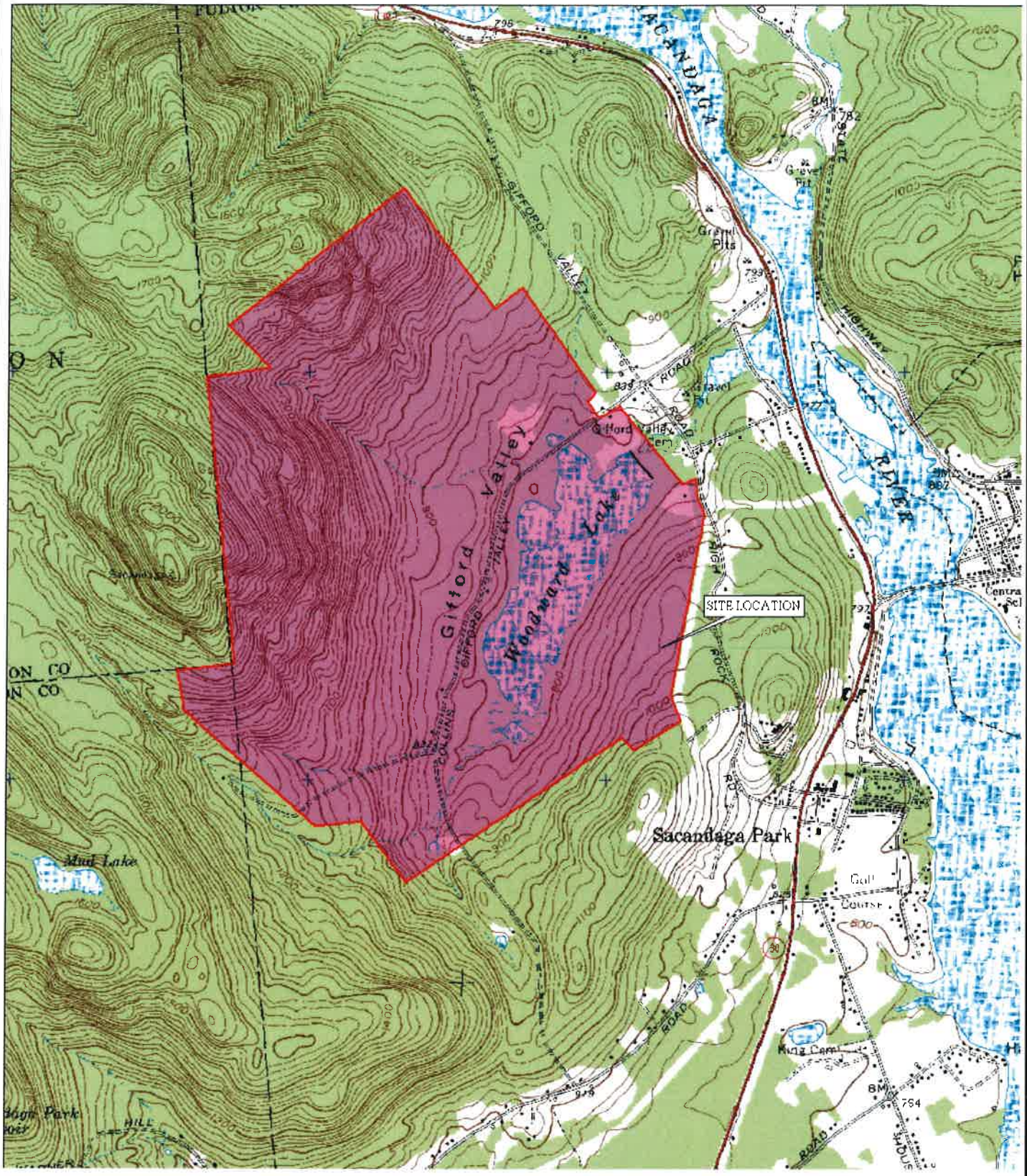
At the request of New York Land & Lakes and its subsidiary Woodward Lake Properties, LLC (the "Owner"), North Country Ecological Services, Inc. (NCES) completed an on-site delineation of Waters of the United States (WOTUS), including freshwater wetlands, on a portion of a 1,169.63± acre property known as "Woodward Lake Properties" (the "Site") (Figure 1). The Site is comprised of four (4) separate parcels as follows:

Parcel 1 (Tax ID 17.0-1-23) - 784.52 ± acres
Parcel 2 (Tax ID 31.0-1-2) - 339.85 ± acres
Parcel 3 (Tax ID 31.2-1-25) - 34.32 ± acres
Parcel 4 (Tax ID 31.0-2-1) - 10.94 ± acres.

At the further request of the Owner, based on consultation with the Adirondack Park Agency (APA), the formal field delineation was limited to only the lands immediately surrounding Woodward Lake and the portion of the property that is found within 800' of the western side of Collins-Gifford Valley Road (the "Review Area") (Figure 1A). Consequently, the Review Area is roughly 708.9± acres in size and encompasses 60% of the entire Site.

The Review Area includes portions of Parcels 1 and 2 and all of Parcel 3. No portion of Parcel 4 is found within the Review Area. The portions of the Site found outside of the Review Area were not evaluated for the presence of wetlands or other regulated waters. It was determined by the Owner (based on direct consultation with the Adirondack Park Agency - APA) that the portions of the Site that are found outside of the Review Area did not need to be reviewed, as those lands are not included in any planned future development.

After a review of the Fulton County Soil Survey, the USGS 7.5' topographic map (Northville Quadrangle), aerial photographs, and other technical information for the Review Area, NCES identified and delineated the limits of wetlands and watercourses that would be subject to the regulatory jurisdiction of the APA, pursuant to Sections 578 and



Base Map: USGS Northville 7.5' Quadrangle, Fulton County, N.Y. Scale: 1" = 2000'

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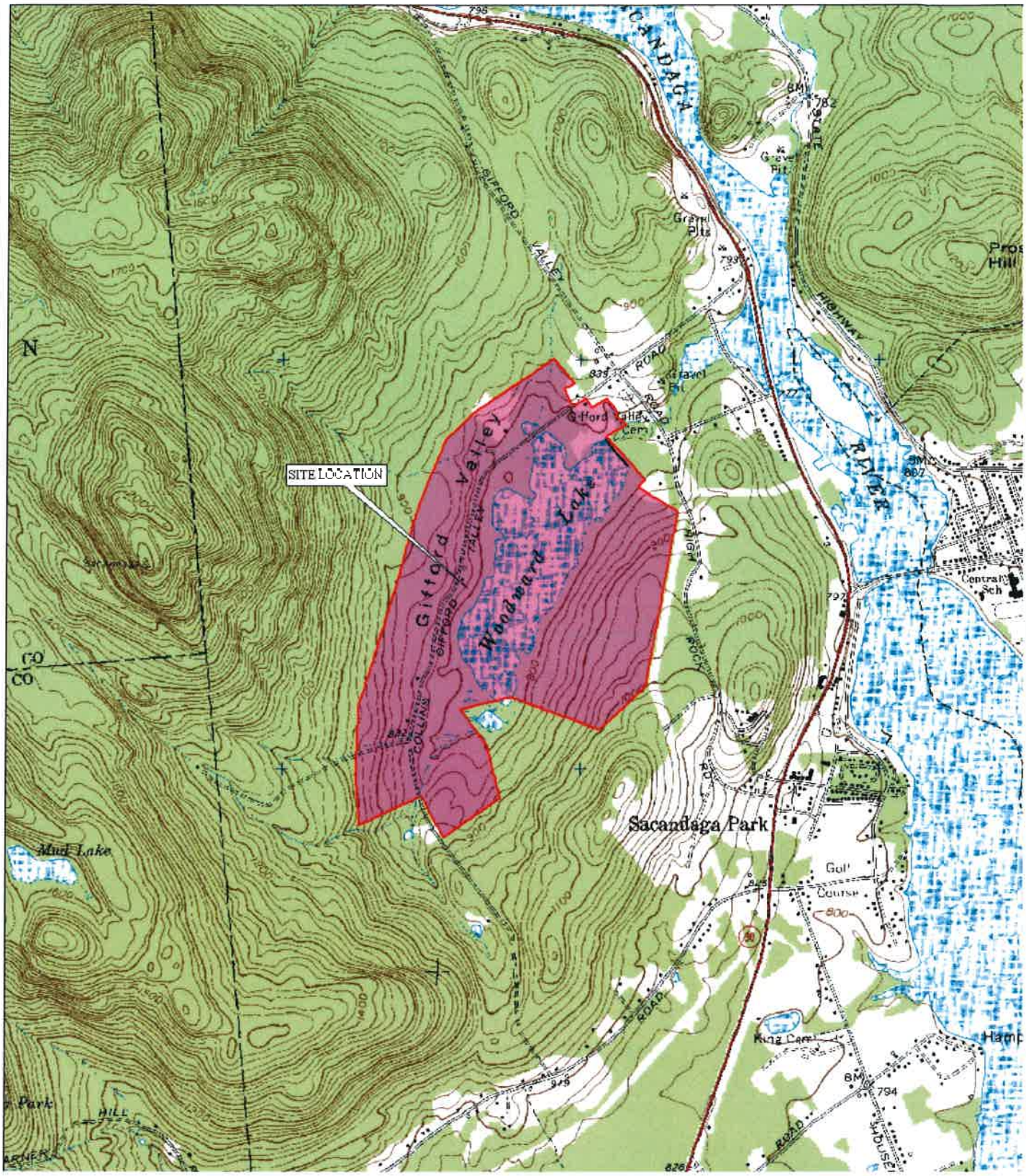
FIGURE 1 - SITE LOCATION MAP



Base Map: USGS Northville 7.5' Quadrangle, Fulton County, N.Y. Scale: 1" = 2000'

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FIGURE 1A - REVIEW AREA LOCATION

801 of the Adirondack Park Agency Act. NCES also identified wetlands and other WOTUS that would fall under the regulatory authority of the U.S. Army Corps of Engineers (USACE), pursuant to Section 404 of the Clean Water Act (CWA). Given the fact that the Review Area is located within the Adirondack Park, the New York State Department of Environmental Conservation (DEC) does not have regulatory jurisdiction of wetlands. The APA administers Article 24 within the Adirondack Park.

The wetland delineation was completed with several field visits that were undertaken during the late 2017 and early 2018 field seasons. The delineated wetland boundaries and defined stream channels were field located by NCES utilizing Global Positioning System (GPS) technology. The collected GPS point file information was then provided to Steven E. Smith Engineering and Architecture and Lawson Surveying, who together formally mapped the wetland and stream locations.

As a result of the delineation, a total of 96.01± acres of vegetated wetland and 62.00± acres of open water (Woodward Lake) were identified within the boundaries of the Review Area. In addition to the vegetated wetlands and open water resources, a cumulative total of 25,960± linear feet of defined perennial stream channels and 22,522± linear feet of intermittent stream channels (Relatively Permanent Waterways – RPW's) were also documented. All streams identified are confined within the wetland boundaries and flow directly into Woodward Lake.

2.0 SITE LOCATION & DESCRIPTION

The Site is located between Gifford Valley Road, High Rock Road and Collins-Gifford Valley Road, in the Towns of Northampton and Mayfield, Fulton County, New York. The centralized coordinates of the Review Area are 43° 13' 28.7" N Latitude and 74° 12' 10.4" W Longitude. Elevations within the Review Area range from 1,210± feet above Mean Sea Level (MSL), found along an upland ridge that is located in the southwest corner of the Review Area, to 797± feet above MSL (the elevation of Woodward Lake), resulting in an elevation difference of 413± feet.

The Review Area is currently undeveloped, with the exception of a single-family home that is found off of Gifford-Valley Road. Collins-Gifford Valley Road is an un-paved, gravel road that bisects the Site and provides access to the western half of the Site and eventually converges with NYS Rt. 30. The eastern half of the Site is accessed from High-Rock Road, which borders the northeastern boundary of the Site. The southeastern boundary of the Site is defined by an overhead utility corridor that crosses, and extends parallel to, High Rock Road. Robert Sweet Road, located in the southwest corner of the Site, is a Town of Northampton road that extends off of Collins-Gifford Valley Road. It provides access to a remote hunting camp that is found on private land and State land located to the west of the property.

Portions of the Review Area have been previously developed. Prior to the 1930's, a few single-family residences were built on the property, off of Collins-Gifford Valley Road. The developed areas have been long since abandoned. Previously cleared areas have gone fallow and most structures have been removed or fallen down on their own. Old house, barn, and silo foundations, stone fireplaces, and concrete hearths are still visible and are all that remain of these previous structures. However, a modern residence, with an outdoor tennis court are located in the northwest corner of the Review Area, immediately adjacent to the concrete dam and the northern end of Woodward Lake. This dam was constructed in the early 1900's to create an open body of water for the original owner to land float planes on. The lake is contained within the center of the Review Area.

Currently, the Review Area is predominantly wooded and is now only utilized for outdoor recreational purposes. The undeveloped components of the Site have been previously logged with the last cutting having occurred approximately 20-25 years ago by the land owner at that time. The logging was conducted on the portion of the Site that is positioned to the west of Collins-Gifford Valley Road. The land immediately surrounding Woodward Lake and the portions of the Site located to the east of it, was not part of that last logging operation, as that land was under separate ownership. However, all portions of the Site have been subjected to logging activities and old log roads exist throughout the property.

Based on the definitions presented in the *Ecological Communities of New York State* (Edinger, 2014) and the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, 1979), the following ecological communities exist within the boundaries of the Review Area:

- Hemlock – Northern hardwood forest (Edinger, 2014)
- Pine - Northern hardwood forest (Edinger, 2014)
- Beech Maple mesic forest (Edinger, 2014)
- Pine plantation (Edinger, 2014)
- Successional old field (Edinger 2014)
- Mowed lawn with trees (Edinger, 2014)
- Mesotrophic dimictic lake (Edinger, 2014)
- Shrub-swamp (Edinger, 2014)**
- Shallow emergent marsh (Edinger, 2014)**
- Hemlock-hardwood swamp (Edinger, 2014)**
- Palustrine Forested Wetland (Cowardin, 1979)**
- Palustrine Scrub-Shrub Wetland (Cowardin, 1979)**
- Palustrine Emergent Wetland (Cowardin 1979)**

** The Shrub swamp, shallow emergent marsh and Hemlock-hardwood swamp ecological communities identified by Edinger are the same as the Palustrine scrub-shrub, Palustrine emergent and Palustrine forested wetland communities as defined by Cowardin.

The extent of the individual ecological community types identified are outlined in Table 1 below:

Table 1
Existing Ecological Community Types

Ecological Community Type	Size in Acres	Percentage of the Site
Hemlock-Northern hardwood forest	141.84± acres	13.5± %
Pine-Northern hardwood forest	168.65± acres	14.5± %
Beech-Maple mesic forest	618.40± acres	52.5± %
Pine Plantation	51.69± acres	5.00± %
Successional old field	4.80± acres	0.05± %
Mowed lawn with trees	12.71± acres	1.50± %
Gravel pit	0.84± acres	0.10± %
Mesotrophic dimictic lake	85.32± acres	7.35± %
Rocky headwater stream	12.70± acres	0.90± %
Shrub Swamp / PSS	26.13± acres	2.10± %
Hemlock-hardwood swamp / PFO	25.27± acres	0.80± %
Shallow emergent marsh / PEM	21.28± acres	1.70± %
Totals for Site	**1,169.63± acres**	**100.0 %**

PEM - Palustrine emergent wetland, PSS - Palustrine scrub-shrub wetland, PFO - Palustrine forested wetland

Land use surrounding the Site includes other single-family (seasonal and year-round) residential homes and undeveloped forest. The individual residences found adjacent to the Site are located along Collins-Gifford Valley and High Rock Roads. Undeveloped forested land borders the Site to the south and west. General photographs of the property, taken during the delineation to document the existing ecological conditions observed, are contained in Appendix A.

3.0 DELINEATION METHODOLOGY

Wetland boundaries were delineated using the three-parameter methodology as outlined in the *Corps of Engineers Wetland Delineation Manual*, 1987 (1987 manual). The 1987 manual was used in accordance with the Corps of Engineers Appropriation Bill and the Johnson Amendment of August 17, 1991, which states that until revisions to the January *1989, Federal Manual for Identifying and Delineating Jurisdictional Wetlands* (1989 manual) are finalized, the Corps will apply the 1987 manual to identify and delineate wetlands potentially subject to regulation under Section 404 of the Clean Water Act.

NCES also employed additional information presented within the *Interim Regional supplement to the Corps of Engineers Wetland Delineation Manual – Northcentral and Northeast Region* ("Interim Regional Supplement", October 2009) as further guidance for assessing and defining wetland boundaries. According to the 1987 Manual and Interim Regional Supplement, in order for an area to be classified as a wetland, it must exhibit the following characteristics: hydrophytic vegetation, hydric soils, and proper wetland hydrology.

The routine on-site determination method was used to determine the wetland boundaries on the Site. Vegetative, soils, and hydrologic data were examined and collected along the upland/wetland transitions. Vegetation was sampled using the quadrant sampling procedure. Transects were established perpendicular to the wetland boundaries in order to document the vegetation, soils, and hydrology of the on-site wetlands and uplands.

The Fish and Wildlife Service issued the *National List of Plant Species That Occur in Wetlands*, (Federal Interagency Committee for Wetland Delineation, 1989), which lists species of vascular plants that are likely to occur in a wetland. The list separates plants into five categories that determine the "wetland indicator status." A species indicator status is based upon its frequency of occurrence in wetlands and are defined as follows:

- *Obligate wetland* plants (OBL) occur almost always (estimated probability >99%) in wetlands under natural conditions;
- *facultative wetland* plants (FACW) usually occur in wetlands (estimated probability 67-99%), but are occasionally found in upland;
- *facultative* plants (FAC) are equally likely to occur in wetlands or uplands (estimated probability 34-66%);
- *facultative upland* plants (FACU) are those species that normally occur in uplands but occasionally occur in wetlands (estimated probability 67-99%); and,
- *upland* (UPL) species occur almost always in uplands (estimated probability >99%) under natural conditions.

Dominant plant species were determined for each vegetative stratum by estimating aerial cover. Dominant plants are defined as those that, when ranked in decreasing order of abundance and cumulatively totaled, exceed 50% of the total dominance measure, plus those species that comprise 20% or more of the dominance measure.

Soils were analyzed to depths of 18±" inches and/or below the A-horizon. Samples were taken with a combination type hand held soil auger and/or spade shovel. Soil samples were checked in the field to determine their Munsell Soil Color Chart designation and hydric soils were identified by color. Field indicators of wetland hydrology were noted on the field data sheets. Vegetation, soils, and hydrology were analyzed concurrently to determine the wetland boundary.

Perennial, intermittent and ephemeral streams were identified by the formation of banks, apparent streambeds, and high-water marks where extended hydrologic input has formed eroded channels in the adjacent soils. Copies of the field data sheets used to document the vegetation, soils, and hydrology at select wetlands found within the Review Area are contained in Appendix B.

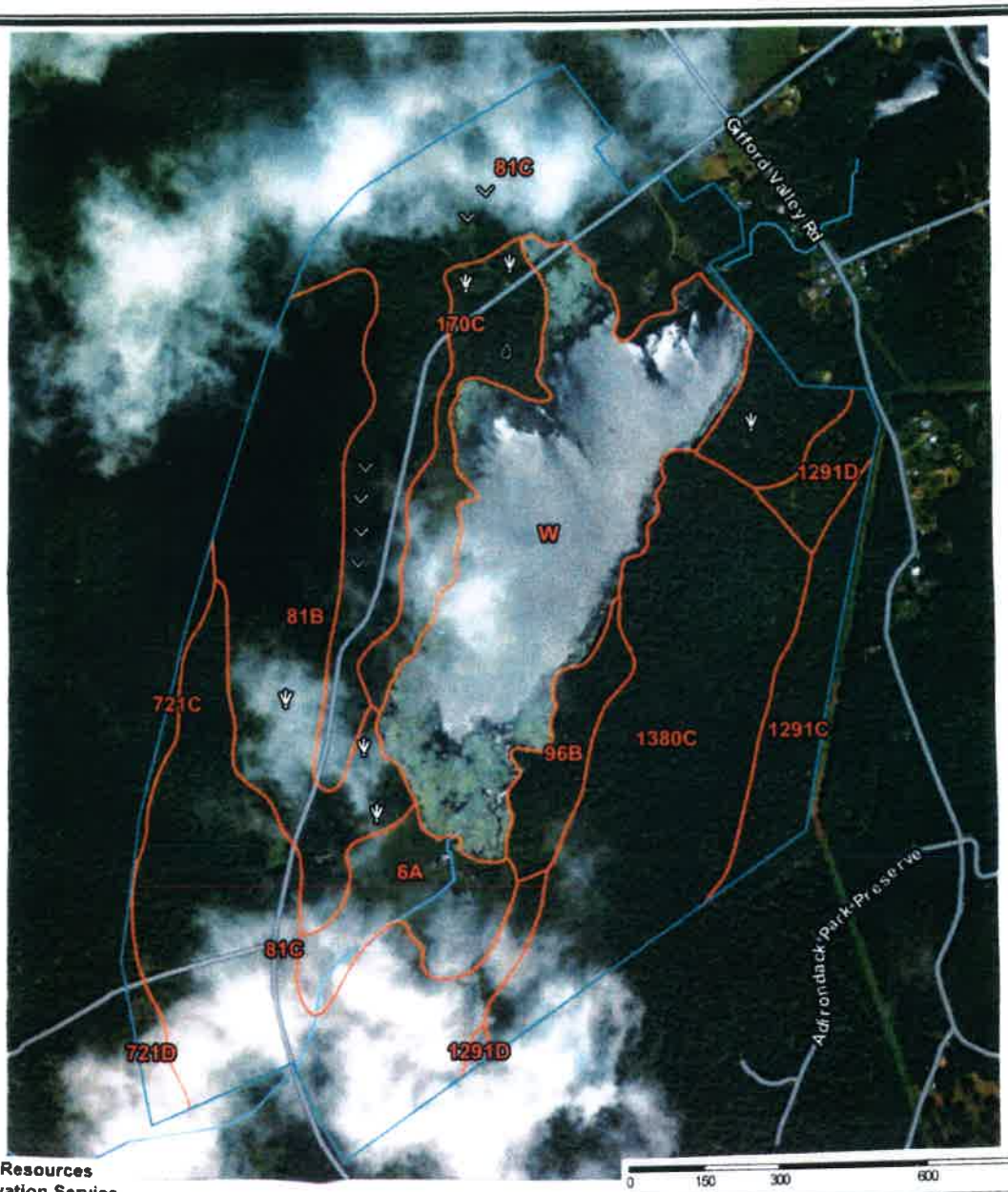
4.0 EXISTING CONDITIONS

4.1 Soils

According to the USDA Natural Resources Conservation Service Web Soil Survey 2.3 for Fulton County, New York (the "Soil Survey"), there are (10) separate soil series that occur within the boundaries of the Site. The soils are as follows: Saprists and Aquents, with 0-2% slopes, frequently ponded (6A); Charlton fine sandy loam, with 3-15 percent slopes (81B & 81C); Ridgebury loam, somewhat poorly drained, with 0-8% slopes (96B); Windsor loamy sand, with 8-15% slopes (170C); Becket-Tunbridge-Skerry complex, with 3-60% slopes, very rocky and bouldery (721C, 721D & 721F); Becket sandy loam with 3-15% slopes, very bouldery (723C); Tunbridge-Lyman complex, with 15 to 35% slopes, very rocky, very bouldery (831D); Lyman-Knob Lock complex, with 35 to 60% sloes, very rocky, very bouldery (851F); Becket-Lyman-Tunbridge complex, with 8-35% slopes, very rocky, very bouldery (1291C & 1291D); and, Becket-Skerry complex with 3-15% slopes, very bouldery (1380C) (Figure 2). The Soil Survey also identifies a large area of open water (W), which is correlated with Woodward Lake.

4.2 Vegetation

During the site reviews, NCES identified ten (10) different ecological communities within the boundaries of the Site. These ecological communities include Hemlock-Northern hardwood forest, Pine – Northern hardwood forest, Beech-maple mesic forest, Pine plantation, Successional old field, Mowed lawn with trees, Hemlock-hardwood swamp (Palustrine forested wetland); Shrub-swamp (Palustrine scrub-shrub wetland); Shallow



USDA **Natural Resources Conservation Service**
Web Soil Survey
National Cooperative Soil Survey

Soils Legend

6A	– Saprists and Aquents, 0-2% percent slopes, ponded	
81B	– Charlton fine sandy loam, 3-8% slopes	
81C	– Charlton fine sandy loam, 8-15% slopes	
96B	– Ridgebury loam, 0-8% slopes	
170C	– Windsor loamy sand, 8-15% slopes	
721C	– Becket-Tunbridge-Skerry complex, 3-15% slopes	
721D	– Becket-Tunbridge-Skerry complex, 15-35% slopes	
1291D	– Becket-Lyman-Tunbridge complex, 15-35% slopes	
1291C	– Becket-Lyman-Tunbridge complex, 8-15% slopes	
1380C	– Becket-Skerry complex, 3-15% slopes	
W	– Open water	

Base Map: Web Soil Survey 3.2 – Fulton County Soil Survey, N.Y.

Scale: As Noted

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FIGURE 2 - SOIL SURVEY

emergent marsh (Palustrine emergent wetland); and, Mesotrophic dimictic lake/pond. Each of these communities, including the Mesotrophic dimictic lake/pond, possess distinct species of vegetation that assists in defining them. The open water components of the Woodward Lake contain submergent and emergent vegetation out to a depth of 4-6'. The fringes of the open water are vegetated with submerged aquatic vegetation. The dominant species of vegetation identified in each community are identified below:

The dominant species of vegetation observed within the Hemlock-Northern hardwood forest ecological community included, but are not limited to: eastern hemlock (*Tsuga canadensis*), American beech (*Fagus grandifolia*), northern red oak (*Quercus rubra*), black cherry (*Prunus serotina*), red maple (*Acer rubrum*), sugar maple (*Acer saccharum*), black birch (*Betula lenta*), hawthorn (*Crataegus* spp.), hobblebush (*Viburnum alnifolium*), wood fern (*Dryopteris intermedia*), Christmas fern (*Polystichum agrostichoides*), Virginia creeper (*Parthenocissus quinquefolia*), common blue violet (*Viola sororia*), and partridge berry (*Mitchella repens*). Tatarian honeysuckle (*Lonicera tatarica*) was dominant in the shrub component of this forest community.

The dominant species of vegetation observed within the Pine-northern hardwood forest ecological community included, but are not limited to: white pine (*Pinus strobus*), eastern hemlock, red pine (*Pinus resinosa*), black cherry, striped maple (*Acer pensylvanicum*), American beech, wood fern, Virginia creeper, raspberry (*Rubus spp.*), and partridge berry.

The dominant species of vegetation observed within the Beech-Maple mesic forest ecological community included, but are not limited to: American beech, sugar maple, red maple, striped maple, yellow birch (*Betula allegheniensis*), witch hobble (*Viburnum lantanoides*), Japanese barberry (*Berberis thunbergii*), wood fern, braken fern (*Pteridium aquilinum*), and trout lily (*Erythronium americanum*).

The dominant species of vegetation observed within the Pine plantation ecological community included, but are not limited to: white pine, red pine (*Pinus resinosa*), Scotch pine (*Pinus sylvestris*), hobblebush, striped maple, and partridgeberry.

The dominant species of vegetation observed within the Successional old field community include, but are not limited to: tatarian honeysuckle, common buckthorn (*Rhamnus cathartica*), staghorn sumac (*Rhus typhina*), quaking aspen (*Populus tremuloides*), multiflora rose (*Rosa multiflora*), gray dogwood (*Cornus racemosa*), Canada goldenrod (*Solidago canadensis*), wild carrot (*Daucus carota*), spotted knapweed (*Centaurea maculosa*), common burdock (*Arctium minus*), evening primrose (*Oenothera biennis*), and chickory (*Cichorinum intybus*).

The dominant species of vegetation observed within the Mowed lawn with trees ecological community included, but are not limited to, white pine, eastern hemlock, American beech, sugar maple, grasses (graminae), dandelion (*Taraxacum officinale*), red clover (*Trifolium pratense*), *bedstraw (Galium* spp.*), Canada thistle (Cirsium arvense),* white clover (*Trifolium repens*), and common plantain (*Plantago major*).

The dominant species of vegetation observed within the Hemlock-hardwood swamp/Palustrine forested wetland ecological community include, but are not limited to: eastern hemlock, black spruce (*Picea mariana*), tamarack (*Larix laricina*), yellow birch, red maple (*Acer rubrum*), speckled alder (*Alnus rugosa*), northern wild raisin (*Viburnum cassinoides*), highbush blueberry (*Vaccinium corymbosum*), cinnamon fern (*Osmunda cinnamomea*), sensitive fern (*Onoclea sensibilis*), royal fern (*Osmunda regalis*), Sphagnum moss (*Sphagnum* spp.), and fowl manna grass (*Glyceria canadensis*).

The dominant species of vegetation observed within the Shrub Swamp/Palustrine scrub-shrub wetland ecological community included, but are not limited to: arrowwood (*Viburnum recognitum*), nannyberry (*Viburnum lentago*), black willow (*Salix nigra*), pussy willow (*Salix discolor*), silky dogwood (*Cornus amomum*), gray dogwood, speckled alder, steeplebush (*Spirea tomentosa*), meadowsweet (*Spirea latifolia*), cinnamon fern, sensitive fern, Sphagnum moss, and lakebank sedge (*Carex lacustris*).

The dominant species of vegetation observed within the Shallow emergent marsh/ Palustrine emergent wetlands included, but are not limited to; cattail (*Typha latifolia*), purple loosestrife (*Lythrum salicaria*), soft rush (*Juncus effusus*), dark green bulrush

(*Scirpus atrovirens*), wool grass (*Scirpus cyperinus*), spike rush (*Eleocharis* spp.), path rush (*Juncus tenuis*), fox sedge (*Carex vulpinoidea*), jewelweed (*Impatiens capensis*), water smartweed (*Polygonum amphibium*), moneywort (*Lysimachia nummularia*), sensitive fern, cinnamon fern, meadowsweet, tussock sedge (*Carex stricta*), lakebank sedge, slender goldenrod (*Solidago tenuifolia*), duckweed (*Lemna minor*), and yellow water lily (*Nymphaea odorata*).

The dominant species of vegetation observed in the Mesotrophic dimictic lake/pond community included, but are not limited to: water celery *(Vallisneria americana),* white waterlily *(Nymphaea odorata),* watershield *(Brasenia schreberi),* large-leaf pondweed *(Potamogeton amplifolius),* bladderwort *(Utricularia spp.),* muskgrass *(Chara spp.),* pipewort *(Eriocaulon sp.), and* large stem bulrush *(Schoenoplectus sp.).* The lake community also possessed some of the same species of emergent wetland vegetation identified above.

4.3 Hydrology

The main sources of hydrology that influence the wetlands on the property appear to originate from direct precipitation, surface water runoff, and groundwater discharge. Precipitation events generate runoff from adjacent, steeper upland ridges that, via overland flow, funnel surface water into natural topographic areas that form intermittent and perennial streams. Scour patterns in leaf litter located on hill slopes was noted leading into these defined drainages.

Ground water discharge was noted in various locations throughout the Site where water flows on top of bedrock and/or out of highly porous sands and gravels and daylights at the ground surface. These discharge points are primarily located along the toe-of-slope of the upland ridges and where subsurface soils or bedrock interface with the ground. Surface water run-off from the adjacent uplands was also noted.

The ground water discharge and surface water runoff, feeds the streams that are found on the property. All of the streams identified are located in natural, eroded drainages that extend from the adjacent uplands toward Woodward Lake. Some of the streams flow directly into the lake while others percolate into porous soils. Woodward Lake is impounded by the concrete dam; a spillway is set at elevation 797' MSL. During high water events, excess water flows northeast over the spillway of the dam and directly into a perennial tributary of the Sacandaga River. The Sacandaga River flows to the southeast and dispenses directly into Great Sacandaga Lake.

5.0 WETLAND DELINEATION FINDINGS

During the field delineation, a total of forty-three (43) individual aquatic resources were identified within the Review Area. The cumulative acreage of the vegetated wetlands identified is 96.01± acres. In addition to the vegetated wetlands, a total of 48,482± linear feet of stream and 62.00± acres of open water (Woodward Lake) were also documented.

The locations and configurations of all aquatic resources identified, are shown on the drawings prepared by Steven E. Smith Engineering titled, "Woodward Lake Properties, LLC – Wetland Delineation " (Sheets: Cover and W-1 through W-8). A complete set of these drawings is provided as Attachment 1. Supplemental delineation information is contained in Appendix C.

6.0 JURISDICTIONAL DETERMINATIONS

6.1 APA Regulated Wetlands

Wetlands within the Adirondack Park boundaries are subject to the regulatory jurisdiction of the APA, pursuant to Sections 578 and 801 of the Adirondack Park Agency Act. Consequently, the APA was directly consulted by the Owner and the agency was provided with a copy of the conceptual wetland delineation map along with a request for APA jurisdictional confirmation.

On June 6, 2019, NCES, the Owners, and representatives from Steven E. Smith Engineering and Architecture met with staff from the APA and conducted the wetland confirmation visit. The purpose of the confirmation visit was to allow the staff from the APA to validate the boundaries of the aquatic resources and to make a formal determination of the extent of areas regulated by the APA.

As a result of the confirmation visit, it was determined by APA staff that the wetlands, streams and open water areas had been accurately delineated by NCES and correctly portrayed on the mapping provided. However, a few additional extensions of existing wetland areas were requested to be added onto the mapping for the Site. These areas were subsequently delineated and GPS located by NCES on June 14, 2019. These areas were added to the mapping that is contained in Attachment 1.

Based on the site visit with the APA Staff, it was determined that all wetlands that are 1.0± acres in size or larger, or wetlands that physically abut the open water component of Woodward Lake are regulated. In addition, all tributaries that have been identified as perennial, are also regulated. The APA regulated resources are defined in Table 2 below:

Table 2
APA Regulated Aquatic Resources

Resource Area	Wetland Acreage	Vegetative Cover Type Present
1	0.15 ± acres	PFO, PSS
2/2a	0.09 ± acres	PFO, PSS
3	0.10 ± acres	PFO, PSS
4	0.03 ± acres	PFO, PSS
5	0.01 ± acres	PFO, PSS
6	0.02 ± acres	PFO, PSS
7	0.01 ± acres	PFO, PSS
8	0.13 ± acres	PFO, PSS
9	0.12 ± acres	PFO, Rocky Headwater Stream
10	2.23 ± acres	PFO, PSS, PEM
16	43.98 ± acres	PFO, PSS, PEM, Stream
16c	1.95 ± acres	PFO, Rocky Headwater Stream
17	0.75 ± acres	PFO, PSS, Stream
18	0.33 ± acres	PFO, PSS, Stream
19	0.03 ± acres	PFO, PSS, Stream

21	0.60 ± acres	PFO, PSS, PEM
23	0.23 ± acres	PSS, PEM, Stream
23a	6.99 ± acres	PFO, Rocky Headwater Stream
24/24a	2.47 ± acres	PFO, PSS, PEM
25	0.03 ± acres	PSS
26	0.002 ± acres	PSS
27	0.04 ± acres	PSS
28	0.08 ± acres	PSS
29	8.46 ± acres	PFO, PSS, PEM, Stream
31	1.94 ± acres	PFO, PSS, Stream
33	1.74 ± acres	PFO
37	0.92 ± acres	PFO
38	0.81 ± acres	PFO
Lake	85.32 ± acres	Woodward Lake
Total	**159.56± acres**	

PEM = Palustrine Emergent, PSS = Palustrine Scrub Shrub, PFO = Palustrine Forested

6.2 USACE Jurisdictional Waters

Based on the observations made by NCES during the wetland delineation process, a direct hydrological connection with a tributary system of a Traditional Navigable Waterway (TNW) was identified between all of the on-site aquatic resources and off-site waters of the United States.

On October 9, 2019, NCES met with Mr. Adam Labatore of the USACE at the property to review the wetland boundaries established. The USACE concluded that the wetlands were delineated accurately and no changes to the wetland boundary map were required. Therefore, the areas identified in Table 3 fall under the regulatory jurisdiction of the USACE:

Table 3
USACE Jurisdictional Waters

Area	Size	Stream Length (Linear Feet)	Vegetative Cover Type Present
1	0.20 ± acres	217 ± L.F.	PFO, PSS, Stream
2/2a	0.61 ± acres	286 ± L.F.	PFO, PSS, Stream
3	0.10 ± acres	0 ± L.F.	PFO, PSS

4	0.03 ± acres	0 ± L.F.	PFO, PSS
5	0.01 ± acres	0 ± L.F	PFO, PSS
6	0.02 ± acres	0 ± L.F.	PFO, PSS
7	0.01 ± acres	0 ± L.F.	PFO, PSS
8	0.13 ± acres	192 ± L.F.	PFO, PSS
9	0.80 ± acres	1,862 ± L.F.	Rocky Headwater Stream
10	2.23 ± acres	576 ± L.F.	PFO, PSS, PEM
11	0.06 ± acres	0 ± L.F.	PFO
12	0.14 ± acres	0 ± L.F.	PFO
13	1.13 ± acres	1,805 ± L.F.	PSS, PEM, Stream
14	0.21 ± acres	153 ± L.F.	PFO, PEM, Stream
15	0.23 ± acres	191 ± L.F.	PFO, Stream
16	44.68 ± acres	5,429 ± L.F.	PFO, PSS, PEM, Stream
16a	0.23 ± acres	2,102 ± L.F.	Rocky Headwater Stream
16b	0.21 ± acres	792 ± L.F.	Rocky Headwater Stream
16c	3.27± acres	3,292 ± L.F.	PFO, Stream
17	0.76 ± acres	548 ± L.F.	PFO, PSS, Stream
17a	0.09 ± acres	194 ± L.F.	Rocky Headwater Stream
17b	0.17 ± acres	3,311 ± L.F.	Rocky Headwater Stream
18	0.46 ± acres	466 ± L.F.	PFO, PSS, Stream
18a	0.33 ± acres	1,860 ± L.F.	Rocky Headwater Stream
19	0.16 ± acres	382 ± L.F.	PFO, PSS, Stream
19a	0.38 ± acres	864 ± L.F.	Rocky Headwater Stream
20	0.07 ± acres	156 ± L.F.	Rocky Headwater Stream
21	0.60 ± acres	0 ± L.F.	PFO, PSS, PEM
22	0.001 ± acres	158 ± L.F.	PSS
23	0.26 ± acres	266 ± L.F.	PSS, PEM, Stream
23a	7.74 ± acres	5,750 ± L.F.	PFO, Stream
24/24a	2.47 ± acres	301 ± L.F.	PFO, PSS, PEM
25	0.03 ± acres	0 ± L.F.	PSS
26	0.002 ± acres	0 ± L.F.	PSS
27	0.04 ± acres	0 ± L.F.	PSS
28	0.08 ± acres	0 ± L.F.	PSS, PEM
29	10.46 ± acres	5,136 ± L.F.	PFO, PSS, PEM, Pond
30	0.02 ± acres	0 ± L.F.	PFO
31	2.26 ± acres	8,525 ± L.F.	PFO, PSS, Stream
32	1.04 ± acres	1,852 ± L.F.	Rocky Headwater Stream
33	1.74 ± acres	599 ± L.F.	Rocky Headwater Stream
37	0.92 ± acres	604 ± L.F.	PFO
38	0.81 ± acres	613 ± L.F.	PFO
Lake	85.32 ± acres	N/A	PEM/Woodward Lake
Total	**170.50± acres**	**48,482 ± L.F.**	

(PEM - Palustrine Emergent, PSS - Palustrine Scrub Shrub, PFO - Palustrine Forested

6.3 DEC Regulated Resources

As previously stated, given the fact that the Site is contained within the boundaries of the Adirondack Park, the DEC does not have regulatory jurisdiction with regard to Article 24 regulated freshwater wetlands. Instead, wetlands within the Adirondack Park are subject to state regulation imposed by the APA.

However, the DEC was contacted by NCES to obtain information regarding the potential for presence of Article 15 regulated streams within the boundaries of the Site. Based on the review of the Article 15 Stream information that was obtained from the DEC's Environmental Resource Mapper (ERM), it has been determined that all of the streams identified on the Site are classified by the DEC as Class C or Class D streams. Therefore, they are not subject to regulation pursuant to Article 15 of the Environmental Conservation Law.

6.4 NWI Mapped Aquatic Resources

As required by the USACE, NCES visited the U.S. Fish and Wildlife Service (USFWS) website and reviewed the National Wetland Inventory (NWI) Mapper to determine if wetlands identified by the USFWS Aquatic Resource Mapping Program are present on the Site. Based on the information obtained from the NWI Mapper, several wetlands are identified as PFO1E (Palustrine, forested, Broad-leaved deciduous and seasonally flooded) and PEM1/SS1C (Palustrine emergent and scrub-shrub, broad-leaved deciduous, seasonally flooded) exist on the property (Figure 3).

When compared with the formal delineation completed by NCES, the NWI wetland map correlate directly with several of wetland areas that were delineated by NCES. In addition to the wetland communities, the NWI Mapper also identifies an open water body (Woodward Lake) on the Site. This area is specifically identified as L1UBHh (Lacustrine, limnetic, unconsolidated bottom, permanently flooded, diked/impounded). This Lacustrine system specifically correlates directly with Woodward Lake.

U.S. Fish and Wildlife Service

National Wetlands Inventory

Wetlands

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

Base Map: USFWS NWI Wetlands Map, Fulton County, N.Y.

Scale: As Noted

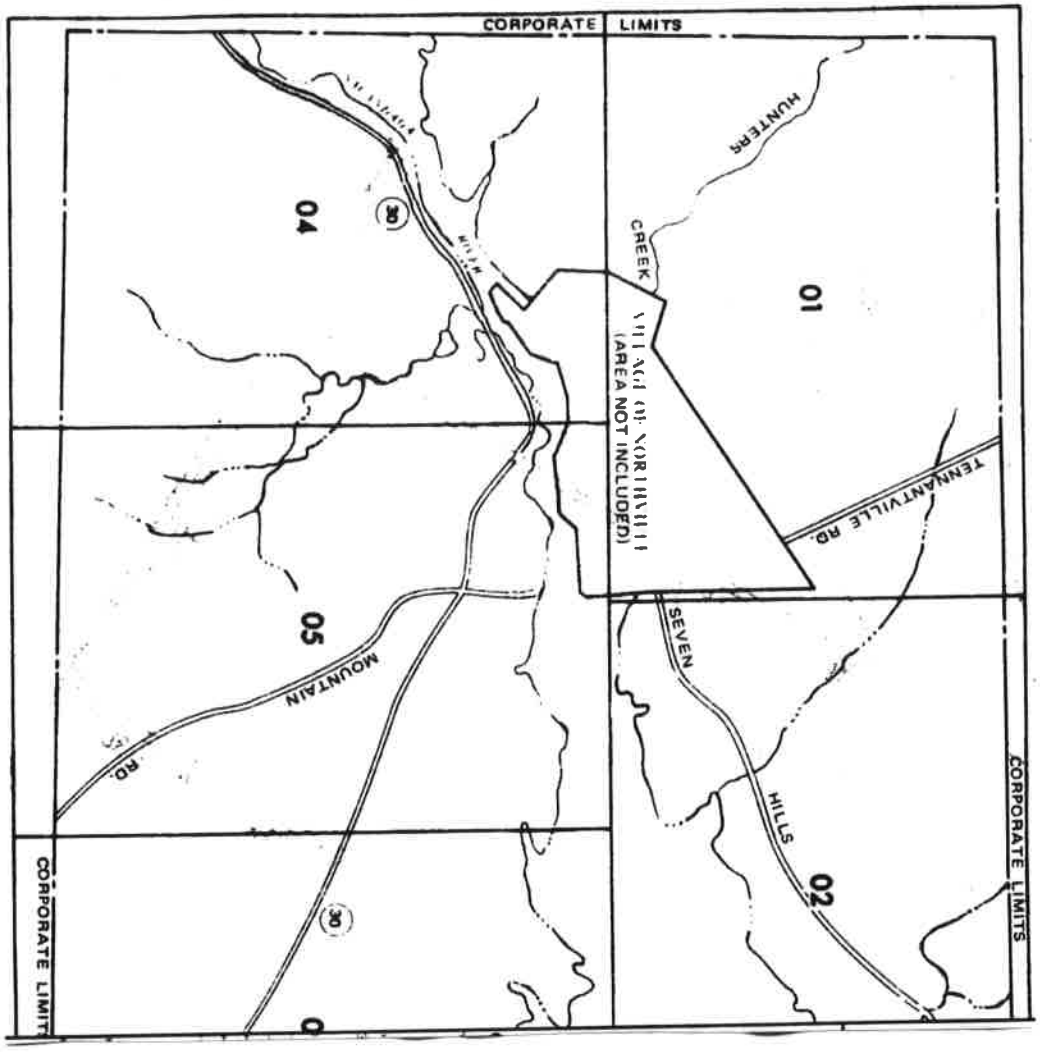
NCES
North Country Ecological Services, Inc.

FIGURE 3 - NWI Aquatic Resources

The NWI maps were generated by the USFWS to assist with identifying aquatic resources and are intended as a reference tool only. The USFWS does not regulate wetlands or streams. Therefore, no further consultation with the USFWS, with regard to regulated wetlands or streams, is required.

6.5 FEMA Flood Hazard Zone Information

As required by the USACE, NCES has reviewed the Federal Emergency Management Agency (FEMA) website for detailed information on known Flood Hazard Zones within the immediate vicinity of the Site. Based on the information obtained, the FEMA website indicates that detailed studies of the general geographic area have not been conducted. However, no currently mapped flood zones are found on, or within the immediate vicinity of the Site (Figure 4).



federal emergency management agency

FIRM

FLOOD INSURANCE RATE MAP 01-08

MAP INDEX

TOWN OF NORTHAMPTON, NY

FULTON COUNTY

COMMUNITY NUMBER 361400 B

Base Map: FEMA Flood Hazard Areas, Fulton County, N.Y. Scale: None

NCES
North Country Ecological Services, Inc.

FIGURE 4 - FEMA Flood Zones

7.0 REFERENCES

- Cowardin, L.M., V. Carter, F.C. Gocet and E.T. Laroe. December 1979.Classification of Wetlands and Deepwater Habitats of the United States. USFWS Office of Biological Service, FWS/IOBL-79/31.

- Edinger, Gregory. 2014. The Ecological Communities of New York State. New York State Department of Environmental Conservation Natural Heritage Program. 97 pp.

- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, US Army Engineer Waterway Experiment Station, Vicksburg, Mississippi.

- Federal Emergency Management Agency. 2019. Flood Hazard Areas Mapping. Great Sacandaga Lake Basin, Fulton County, New York. www.fema.gov

- New York State Department of Environmental Conservation. Environmental Resource Mapper - Article 15 Stream Information for Fulton County, New York. www.dec.ny.gov.

- U. S. Department of Agriculture, Soil Conservation Service. Web Soil Survey 3.2. Soil Survey of Fulton County, New York.

- U.S. Fish and Wildlife Service. National Wetland Inventory Mapper. NWI Wetland Mapping for Fulton County, New York. www.fws.gov/wetlands.

Appendix A

Site Photographs

Photograph 1) View of Woodward Lake, as observed from a point on the northern shore, while looking southeast across the Lake.

Photograph 2) View of Woodward Lake, as observed from a point on the eastern shore, while looking west across the Lake.

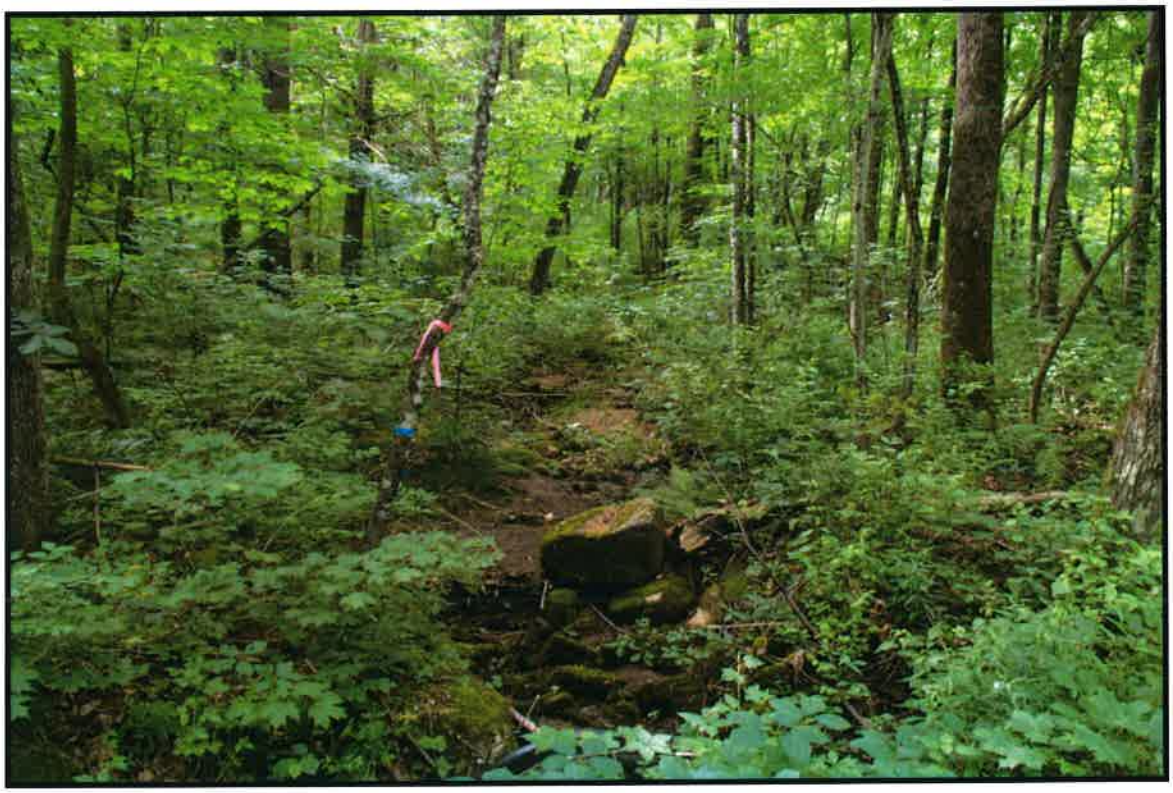
Photograph 3) View of Woodward Lake, as observed from a point on the southeastern shore, while looking northwest across the Lake.

Photograph 4) View of the forested wetlands that exist along the fringes of Woodward Lake.

Photograph 5) View of an intermittent drainage that is found on the east side of Woodward Lake. The drainage flows directly into the lake.

Photograph 6) View of a perennial stream that flows thorough Wetland Area 29.

Photograph 7) View of a perennial stream that flows through Wetland Area 31.



Photograph 8) View of an intermittent stream that is located on the western side of Woodward Lake.

Photograph 9) View of the perennial stream located in Wetland Area 16C. The culvert connects Area 16C with Wetland Area 16, which is located to the east of Collins-Gifford Valley Road.

Photograph 10) View of the intermittent drainage that was flagged as Area 18A.

Photograph 11) View of the culvert and the intermittent stream that was identified as Area 18.

Photograph 12) View of the stream channel that flows through Wetland Area 19.

Photograph 13) View of the perennial stream that flows through Wetland Area 29.

Photograph 14) View of the scrub-shrub portion of Wetland Area 16C. This picture was obtained while looking south along the boundary of the wetland.

Photograph 15) View of the scrub-shrub component of Wetland Area 16C. This photograph shows the transition from scrub-shrub wetland to forested upland.

Photograph 16) View of an old stone structure that exists along the boundary of Wetland Area 16C.

Photograph 17) View of a portion of Wetland Area 23A.

Photograph 18) View of a portion of Wetland Area 33.

Photograph 19) View of the wetland/upland interface found along the boundary of Wetland Area 29.

Photograph 20) View of the forested wetland component of Wetland Area 29.

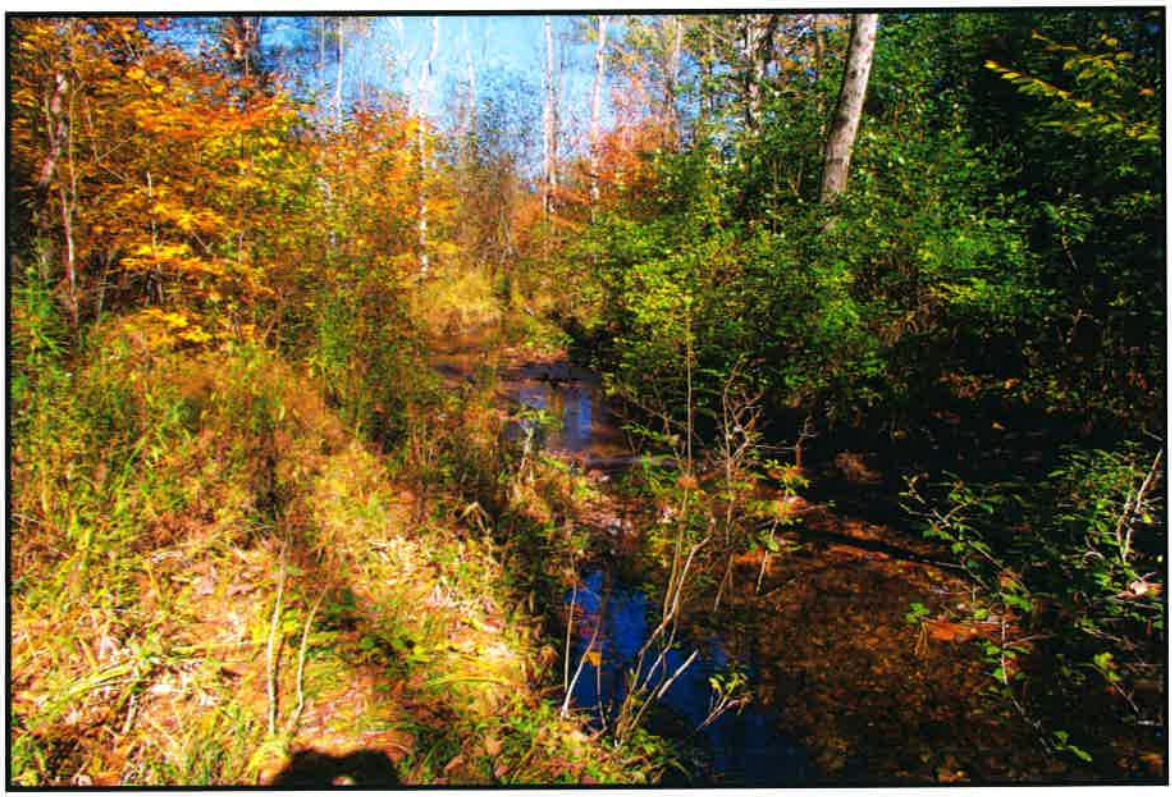
Photograph 21) View of an intermittent stream that flows into Wetland Area 31.

Photograph 22) View of an intermittent stream that flows into Wetland Area 17B.

Photograph 23) View of an old logging road that extends through the forested uplands located to the west of Collins-Gifford Valley Road.

Photograph 24) View of the typical conditions observed in the forested upland component of the property that is located to the east of Woodward Lake.

Photograph 25) View of Wetland Area 1.



Photograph 26) of the perennial stream and adjacent wetlands that extend between Collins-Gifford Valley Road and Woodward Lake.

Photograph 27) View of the portion of Woodward Lake that has been separated from the lake property by Collins-Gifford Valley Road.

Photograph 28) View of Collins-Gifford Valley Road and the adjacent wetlands located to the west of it.

Photograph 29) View of the earthen berm that extends along the dam at the northern end of Woodward Lake.

Photograph 30) View of the existing residence that is found at the northern end of Woodward Lake.

Appendix B

Field Data Sheets

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Woodward Lake City/County: Fulton County Sampling Date: 6/24/19

Applicant/Owner: Woodward Lake Properties, LLC State: NY Sampling Point: 1

Investigator(s): NCES Section, Township, Range: Town of Northampton

Landform (hillslope, terrace, etc.): Lake Edge Local relief (concave, convex, none): concave Slope (%): 0-3%

Subregion (LRR or MLRA): MLRA Lat: Long: Datum:

Soil Map Unit Name: Charlton fine sandy loam (81C) NWI classification:

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, etc.

Hydrophytic Vegetation Present?	Yes ☑	No ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: Wetland Area 29
Wetland Hydrology Present?	Yes ☑	No ☐	

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

This sample plot was obtained along the northern boundary of the wetland. The wetland area is found along the fringe of the portion of Woodward Lake that is separated by Collins-Gifford Valley Road.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ☑	No ☐	Depth (inches): 2.5 Inches
Water Table Present?	Yes ☑	No ☐	Depth (inches): at surface
Saturation Present? (includes capillary fringe)	Yes ☐	No ☐	Depth (inches): N/A

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

This area is located along the fringe of Woodward Lake. In addition, two separate streams also dispense into the wetland community. These streams are located to the west.

VEGETATION – Use scientific names of plants.

Sampling Point: 1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Betula populifolia	5	no	FAC
2. Acer rubrum	20	yes	FAC
3. Ulmus americana	5	no	FACW
4. Fraxinus pennsylvanica	5	no	FACW
5.			
6.			
7.			
	35	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Alnus rugosa	35	yes	FACW
2. Viburnum dentatum	10	no	FACW
3. Cornus amomum	25	yes	FACW
4. Salix discolor	10	no	FACW
5.			
6.			
7.			
	80	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Typha latifolia	10	no	OBL
2. Carex stricta	35	yes	OBL
3. Onoclea sensibilis	25	yes	FACW
4. Glyceria canadensis	15	no	OBL
5. Impatiens capensis	5	no	FACW
6. Solidago gigantea	10	no	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 15' radius)			
1.			
2. N/A			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	130	x 2 =	260
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	215 (A)		395 (B)

Prevalence Index = B/A = 1.83

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes [x] No [ ]

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

SOIL

Sampling Point: 1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10yr 3/1	100	None				sediment	High organic content
4-12	10yr 3/1	90	10yr 4/1	5	D	M	sandy loam	
			10yr 4/6	5	C	PL		
12-29	10yr 4/1	75	10yr 3/1	20	C	M	sandy loam	Depleted matrix
			10yr 4/6	5	C	PL		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Woodward Lake City/County: Fulton County Sampling Date: 6/24/19

Applicant/Owner: Woodward Lake Properties, LLC State: NY Sampling Point: U1

Investigator(s): NCES Section, Township, Range: Town of Northampton

Landform (hillslope, terrace, etc.): Lake Edge Local relief (concave, convex, none): concave Slope (%): 0-3%

Subregion (LRR or MLRA): MLRA Lat: Long: Datum:

Soil Map Unit Name: Charlton fine sandy loam (81C) NWI classification:

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, etc.

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

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

This sample plot was obtained along the northern boundary of the wetland. The wetland area is found along the fringe of the portion of Woodward Lake that is separated by Collins-Gifford Valley Road.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ☐	No ☑	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:

No indicators of hydrology were observed.

VEGETATION – Use scientific names of plants.

Sampling Point: U1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Betula populifolia	5	no	FAC
2. Acer rubrum	20	yes	FAC
3. Quercus rubra	20	yes	FACU
4. Tsuga canadensis	20	yes	FACU
5. Prunus serotina	10	no	FACU
6. Fagus grandifolia	10	no	FACU
7.			
	85	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Hamamelis virginiana	10	no	FAC
2. Berberis thunbergii	20	yes	FACU
3. Lonicera tatarica	10	no	FACU
4.			
5.			
6.			
7.			
	40	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Dryopteris intermedia	35	yes	FACU
2. Viola sororia	10	no	FAC
3. Polystichum agrostichoides	15	no	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	60	= Total Cover	
Woody Vine Stratum (Plot size: 15' radius)			
1.			
2. N/A			
3.			
4.			
	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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	140	x 4 =	560
UPL species	0	x 5 =	0
Column Totals:	185 (A)		695 (B)

Prevalence Index = B/A = 3.75

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL

Sampling Point: U1

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
0-2	10yr 3/1	100	None				sediment	High organic content
4-12	10yr 3/3	90	10yr 3/1	5	C	M	sandy loam	
			10yr 4/4	5	C	M		
12-18	10yr 4/4	75	10yr 3/1	20	C	M	sandy loam	
			10yr 4/6	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Woodward Lake City/County: Fulton County Sampling Date: 6/24/19

Applicant/Owner: Woodward Lake Properties, LLC State: NY Sampling Point: 2

Investigator(s): NCES Section, Township, Range: Town of Northampton

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%

Subregion (LRR or MLRA): MLRA Lat: Long: Datum:

Soil Map Unit Name: Charlton fine sandy loam (81C) NWI classification:

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, etc.

Hydrophytic Vegetation Present?	Yes ☑	No ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: Wetland Area 29

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

This sample plot was obtained along the western boundary of the wetland. The wetland area is found along a perennial tributary that is located to the west of Collins-Gifford Valley Road

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☑ No ☐ Depth (inches): 0.75 Inches

Water Table Present? Yes ☑ No ☐ Depth (inches): at surface

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): N/A

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

This wetland area is located within the floodplain of the perennial tributary that extends through it.

VEGETATION – Use scientific names of plants.

Sampling Point: 2

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Betula populifolia	5	no	FAC
2. Acer rubrum	20	yes	FAC
3. Ulmus americana	5	no	FACW
4. Fraxinus pennsylvanica	20	yes	FACW
5.			
6.			
7.			
	50	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Hamamelis virginiana	35	yes	FACW
2. Carpinus caroliniana	10	no	FACW
3.			
4.			
5.			
6.			
7.			
	45	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Carex crinita	5	no	OBL
2. Carex stricta	35	yes	OBL
3. Onoclea sensibilis	30	yes	FACW
4. Glyceria canadensis	15	no	OBL
5. Impatiens capensis	5	no	FACW
6. Osmunda regalis	10	no	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 15' radius)			
1.			
2. N/A			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	65	x 1 =	65
FACW species	105	x 2 =	210
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	195 (A)		350 (B)

Prevalence Index = B/A = 1.79

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes [x] No [ ]

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

SOIL

Sampling Point: 2

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
0-2	10yr 3/1	100	None				sediment	High organic content
4-9	10yr 3/1	90	10yr 4/1	5	D	M	sandy loam	
			10yr 4/6	5	C	PL		
9-17	10yr 4/1	75	10yr 3/1	20	C	M	sandy loam	Depleted matrix
			10yr 4/6	5	C	PL		
17+								gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Woodward Lake City/County: Fulton County Sampling Date: 6/24/19

Applicant/Owner: Woodward Lake Properties, LLC State: NY Sampling Point: U2

Investigator(s): NCES Section, Township, Range: Town of Northampton

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%

Subregion (LRR or MLRA): MLRA Lat: Long: Datum:

Soil Map Unit Name: Charlton fine sandy loam (81C) NWI classification:

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, etc.

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

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

This sample plot was obtained along the northern boundary of Wetland Area 29. The wetland is bordered by forested upland.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ☐	No ☐	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:

No indicators of hydrology were observed.

VEGETATION – Use scientific names of plants.

Sampling Point: U2

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fagus grandifolia	35	yes	FACU
2. Acer rubrum	10	no	FAC
3. Quercus rubra	20	yes	FACU
4. Prunus serotina	15	no	FACU
5. Acer saccharum	20	yes	FACU
6.			
7.			
	90	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Berberis thunbergii	25	yes	FACU
2. Fagus grandifolia	20	yes	FACU
3.			
4.			
5.			
6.			
7.			
	45	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Dryopteris intermedia	10	no	FACU
2. Polystichum agrostichoides	35	yes	FACU
3. Lycopodium clavatum	10	no	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	55	= Total Cover	

Woody Vine Stratum (Plot size: 15' radius)			
1.			
2. N/A			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 6 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	170	x 4 =	680
UPL species	0	x 5 =	0
Column Totals:	190 (A)		740 (B)

Prevalence Index = B/A = 3.89

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL

Sampling Point: U2

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
0-2	10yr 3/1	100	None				sediment	High organic content
2-8	10yr 4/4	90	10yr 3/1	5	C	M	sandy loam	
			10yr 3/2	5	C	M		
8-18	10yr 4/4	80	10yr 3/2	20	C	M	sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Woodward Lake City/County: Fulton County Sampling Date: 6/24/19

Applicant/Owner: Woodward Lake Properties, LLC State: NY Sampling Point: 3

Investigator(s): NCES Section, Township, Range: Town of Northampton

Landform (hillslope, terrace, etc.): Lake Edge Local relief (concave, convex, none): concave Slope (%): 0-3%

Subregion (LRR or MLRA): MLRA Lat: Long: Datum:

Soil Map Unit Name: Charlton fine sandy loam (81B) NWI classification:

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, etc.

Hydrophytic Vegetation Present?	Yes ☑	No ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: Wetland Area 23A

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

This sample plot was obtained along the eastern boundary of the portion of the wetland that is located on a small bench found on the hillside that exists west of Collins-Gifford Valley Road.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☑ No ☐ Depth (inches): 2.5 Inches

Water Table Present? Yes ☑ No ☐ Depth (inches): at surface

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): N/A

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

This area is located along a small bench that exists on the hillside. In addition, two separate streams also dispense into the wetland community. These originate at ground water weeps along the adjacent forested hillside.

VEGETATION – Use scientific names of plants.

Sampling Point: 3

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Betula populifolia	5	no	FAC
2. Acer rubrum	20	yes	FAC
3. Ulmus americana	15	yes	FACW
4. Fraxinus pennsylvanica	5	no	FACW
5. Tsuga canadensis	10	no	FACU
6.			
7.			
	55	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Hamamelis virginiana	25	yes	FACW
2. Betula populifolia	25	yes	FAC
3. Cornus amomum	5	no	FACW
4. Salix discolor	5	no	FACW
5.			
6.			
7.			
	60	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Carex crinita	10	no	OBL
2. Carex stricta	25	yes	OBL
3. Onoclea sensibilis	25	yes	FACW
4. Glyceria canadensis	10	no	OBL
5. Impatiens capensis	5	no	FACW
6. Solidago gigantea	10	no	FACW
7. Osmunda regalis	5	no	OBL
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: 15' radius)			
1.			
2. N/A			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species	95	x 2 =	190
FAC species	50	x 3 =	150
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	205 (A)		430 (B)

Prevalence Index = B/A = 2.10

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes [x] No [ ]

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

SOIL

Sampling Point: 3

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	10yr 3/1	100	None				sediment	High organic content
3-10	10yr 3/1	90	10yr 4/1	5	D	M	sandy loam	
			10yr 4/6	5	C	PL		
10-19	10yr 4/1	75	10yr 3/1	20	C	M	sandy loam	Depleted matrix
			10yr 4/6	5	C	PL		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Woodward Lake City/County: Fulton County Sampling Date: 6/24/19

Applicant/Owner: Woodward Lake Properties, LLC State: NY Sampling Point: U3

Investigator(s): NCES Section, Township, Range: Town of Northampton

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%

Subregion (LRR or MLRA): MLRA Lat: Long: Datum:

Soil Map Unit Name: Charlton fine sandy loam (81B) NWI classification:

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, etc.

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

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

This sample plot was obtained within forested uplands that are located adjacent to the portion of the Wetland 23A that is positioned on a small bench on the hillside that exists west of Collins-Gifford Valley Road.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ☐	No ☐	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:

No indicators of hydrology were observed.

VEGETATION – Use scientific names of plants.

Sampling Point: U3

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fagus grandifolia	20	yes	FACU
2. Tsuga canadensis	10	no	FACU
3. Quercus rubra	20	yes	FACU
4. Prunus serotina	15	no	FACU
5. Acer saccharum	30	yes	FACU
6.			
7.			
	95	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Berberis thunbergii	25	yes	FACU
2. Fagus grandifolia	20	yes	FACU
3.			
4.			
5.			
6.			
7.			
	45	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Dryopteris intermedia	10	no	FACU
2. Polystichum agrostichoides	35	yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	45	= Total Cover	

Woody Vine Stratum (Plot size: 15' radius)			
1.			
2. N/A			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 6 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	185	x 4 =	740
UPL species	0	x 5 =	0
Column Totals:	185 (A)		740 (B)

Prevalence Index = B/A = 4.0

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL

Sampling Point: U3

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	10yr 3/1	100	None				sediment	High organic content
3-8	10yr 3/4	90	10yr 3/1	5	C	M	sandy loam	
			10yr 4/4	5	C	M		
8-16	10yr 4/4	80	10yr 3/2	20	C	M	sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Woodward Lake City/County: Fulton County Sampling Date: 6/24/19

Applicant/Owner: Woodward Lake Properties, LLC State: NY Sampling Point: 4

Investigator(s): NCES Section, Township, Range: Town of Northampton

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 0-2%

Subregion (LRR or MLRA): MLRA Lat: Long: Datum:

Soil Map Unit Name: Saprists and Aquents, 0 to 2% slopes (6A) NWI classification:

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, etc.

Hydrophytic Vegetation Present?	Yes ☑	No ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: Wetland Area 16
Wetland Hydrology Present?	Yes ☑	No ☐	

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

This sample plot was obtained along the northern boundary of the wetland.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ☑	No ☐	Depth (inches): 1.5 Inches
Water Table Present?	Yes ☑	No ☐	Depth (inches): at surface
Saturation Present? (includes capillary fringe)	Yes ☐	No ☐	Depth (inches): N/A

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

The wetland area extends along a perennial tributary of Woodward Lake. The wetland exists between Collins-Gifford Valley Road and the lake proper.

VEGETATION – Use scientific names of plants.

Sampling Point: 4

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Platanus occidentalis	5	no	FAC
2. Acer rubrum	30	yes	FAC
3. Ulmus americana	15	no	FACW
4. Fraxinus pennsylvanica	25	yes	FACW
5.			
6.			
7.			
	75	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Alnus rugosa	25	yes	FACW
2. Viburnum dentatum	10	no	FACW
3. Cornus amomum	20	yes	FACW
4. Salix discolor	10	no	FACW
5. Rhamnus cathartica	5	no	FAC
6.			
7.			
	70	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Osmunda regalis	15	no	OBL
2. Carex stricta	5	no	OBL
3. Onoclea sensibilis	25	yes	FACW
4. Glyceria canadensis	25	yes	OBL
5. Impatiens capensis	20	yes	FACW
6. Solidago gigantea	5	no	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	95	= Total Cover	

Woody Vine Stratum (Plot size: 15' radius)			
1.			
2. N/A			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	155	x 2 =	310
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	240 (A)		475 (B)

Prevalence Index = B/A = 1.97

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes [x] No [ ]

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

SOIL

Sampling Point: 4

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	10yr 3/1	100	None				sediment	High organic content
4-12	10yr 3/1	90	10yr 4/1	5	D	M	sandy loam	
			10yr 4/6	5	C	PL		
12-18	10yr 4/1	75	10yr 3/1	20	C	M	sandy loam	Depleted matrix
			10yr 4/6	5	C	PL		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Woodward Lake City/County: Fulton County Sampling Date: 6/24/19

Applicant/Owner: Woodward Lake Properties, LLC State: NY Sampling Point: U4

Investigator(s): NCES Section, Township, Range: Town of Northampton

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%

Subregion (LRR or MLRA): MLRA Lat: Long: Datum:

Soil Map Unit Name: Saprists and Aquents, 0 to 2% slopes (6A) NWI classification:

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, etc.

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

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

This sample plot was obtained within forested uplands that exist along the northern boundary of the portion of Wetland Area 16 that exists between Woodward Lake and Collins-Gifford Valley Road.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ☐	No ☐	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:

No indicators of hydrology were observed.

VEGETATION – Use scientific names of plants.

Sampling Point: U4

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fagus grandifolia	15	no	FACU
2. Acer rubrum	5	no	FAC
3. Pinus strobus	25	yes	FACU
4. Prunus serotina	20	yes	FACU
5. Acer saccharum	20	yes	FACU
6. Pinus resinosa	15	no	FACU
7.			
	100	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Berberis thunbergii	20	yes	FACU
2. Fagus grandifolia	5	no	FACU
3. Acer pennsylvanicum	20	yes	FACU
4.			
5.			
6.			
7.			
	45	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Dryopteris intermedia	20	yes	FACU
2. Polystichum agrostichoides	45	yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	65	= Total Cover	

Woody Vine Stratum (Plot size: 15' radius)			
1.			
2. N/A			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 7 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	205	x 4 =	820
UPL species	0	x 5 =	0
Column Totals:	210 (A)		835 (B)

Prevalence Index = B/A = 3.97

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL

Sampling Point: U4

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	10yr 3/1	100	None				pine duff	High organic content
3-10	10yr 4/4	90	10yr 3/1	5	C	M	sandy loam	
			10yr 3/2	5	C	M		
10-18	10yr 4/6	80	10yr 4/4	20	C	M	sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Woodward Lake City/County: Fulton County Sampling Date: 6/24/19

Applicant/Owner: Woodward Lake Properties, LLC State: NY Sampling Point: 5

Investigator(s): NCES Section, Township, Range: Town of Northampton

Landform (hillslope, terrace, etc.): Old Impoundment Local relief (concave, convex, none): concave Slope (%): 0-3%

Subregion (LRR or MLRA): MLRA Lat: Long: Datum:

Soil Map Unit Name: Charlton fine sandy loam (81C) NWI classification:

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, etc.

Hydrophytic Vegetation Present?	Yes ☑	No ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: Wetland Area 16C

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

This sample plot was obtained from a point within an old impoundment, located along a perennial stream corridor that is located to the southwest of Collins-Gifford Valley Road, in the southwest corner of the Site.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ☑	No ☐	Depth (inches): 0.5 Inches
Water Table Present?	Yes ☑	No ☐	Depth (inches): at surface
Saturation Present? (includes capillary fringe)	Yes ☐	No ☐	Depth (inches): N/A

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

This area appears to have been impounded in years prior. An old stone structure and earthen berm are located in northern portion of this part of the wetland complex.

VEGETATION – Use scientific names of plants.

Sampling Point: 5

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Betula populifolia	5	no	FAC
2. Acer rubrum	5	no	FAC
3. Ulmus americana	5	no	FACW
4.			
5.			
6.			
7.			
	15	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Alnus rugosa	25	yes	FACW
2. Viburnum dentatum	5	no	FACW
3. Cornus amomum	15	yes	FACW
4. Salix discolor	10	no	FACW
5.			
6.			
7.			
	55	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Typha latifolia	20	no	OBL
2. Scirpus atrovirens	5	no	OBL
3. Onoclea sensibilis	20	yes	FACW
4. Scirpus cyperinus	15	no	FACW
5. Solidago tenuifolia	20	yes	FAC
6. Solidago gigantea	20	yes	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 15' radius)			
1.			
2. N/A			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	115	x 2 =	230
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	170 (A)		335 (B)

Prevalence Index = B/A = 1.97

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes [x] No [ ]

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

SOIL

Sampling Point: 5

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10yr 3/1	100	None				sediment	High organic content
6-16	10yr 3/1	90	10yr 4/1	5	D	M	sandy loam	
			10yr 4/6	5	C	PL		
16-20	10yr 4/1	60	10yr 3/1	30	C	M	sandy loam	Depleted matrix
			10yr 4/6	10	C	PL		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Woodward Lake City/County: Fulton County Sampling Date: 6/24/19

Applicant/Owner: Woodward Lake Properties, LLC State: NY Sampling Point: U6

Investigator(s): NCES Section, Township, Range: Town of Northampton

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%

Subregion (LRR or MLRA): MLRA Lat: Long: Datum:

Soil Map Unit Name: Charlton fine sandy loam (81C) NWI classification:

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, etc.

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

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

This sample plot was obtained within forested uplands that border the wetlands located along the southern portion of Woodward Lake.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ☐	No ☐	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:

No indicators of hydrology were observed.

VEGETATION – Use scientific names of plants.

Sampling Point: U6

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fagus grandifolia	20	yes	FACU
2. Acer rubrum	10	no	FAC
3. Larix laricina	20	yes	FAC
4. Pinus strobus	25	no	FACU
5. Acer saccharum	20	yes	FACU
6.			
7.			
	95	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Berberis thunbergii	25	yes	FACU
2. Fagus grandifolia	5	yes	FACU
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Dryopteris intermedia	10	no	FACU
2. Polystichum agrostichoides	35	yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	45	= Total Cover	

Woody Vine Stratum (Plot size: 15' radius)			
1.			
2. N/A			
3.			
4.			
	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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	140	x 4 =	560
UPL species	0	x 5 =	0
Column Totals:	170 (A)		650 (B)

Prevalence Index = B/A = 3.82

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL

Sampling Point: U6

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10yr 3/1	100	None				sediment	High organic content
4-8	10yr 3/2	90	10yr 3/1	5	C	M	sandy loam	
			10yr 4/4	5	C	M		
8-18	10yr 4/4	70	10yr 3/2	20	C	M	sandy loam	
			10yr 5/6	10	C	M	sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Woodward Lake City/County: Fulton County Sampling Date: 6/24/19

Applicant/Owner: Woodward Lake Properties, LLC State: NY Sampling Point: 7

Investigator(s): NCES Section, Township, Range: Town of Northampton

Landform (hillslope, terrace, etc.): Hillside Drainage Local relief (concave, convex, none): concave Slope (%): 0-3%

Subregion (LRR or MLRA): MLRA Lat: Long: Datum:

Soil Map Unit Name: Charlton fine sandy loam (81C) NWI classification:

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, etc.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Hydric Soil Present? Yes ☑ No ☐

Wetland Hydrology Present? Yes ☑ No ☐

Is the Sampled Area within a Wetland? Yes ☑ No ☐

If yes, optional Wetland Site ID: Wetland Area 2 / 2A

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

This sample plot was obtained along the northern boundary of the wetland.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☑ No ☐ Depth (inches): 2.5 Inches

Water Table Present? Yes ☑ No ☐ Depth (inches): at surface

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): N/A

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

This area is located along the boundary of the wetland. The wetland drains into an intermittent stream that flows west into Woodward Lake.

VEGETATION – Use scientific names of plants.

Sampling Point: 7

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Betula populifolia	25	yes	FAC
2. Acer rubrum	20	yes	FAC
3. Ulmus americana	5	no	FACW
4. Fraxinus pennsylvanica	5	no	FACW
5.			
6.			
7.			
	55	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Hamamelis virginiana	35	yes	FACW
2. Viburnum dentatum	5	no	FACW
3. Cornus amomum	20	yes	FACW
4. Salix discolor	5	no	FACW
5.			
6.			
7.			
	65	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Typha latifolia	5	no	OBL
2. Carex stricta	20	yes	OBL
3. Onoclea sensibilis	35	yes	FACW
4. Glyceria canadensis	5	no	OBL
5. Impatiens capensis	20	yes	FACW
6. Solidago gigantea	10	no	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	95	= Total Cover	

Woody Vine Stratum (Plot size: 15' radius)			
1.			
2. N/A			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	140	x 2 =	280
FAC species	45	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	215 (A)		400 (B)

Prevalence Index = B/A = 1.86

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes [x] No [ ]

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

SOIL

Sampling Point: 7

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10yr 3/1	100	None				sediment	High organic content
2-10	10yr 3/1	90	10yr 4/1	5	D	M	sandy loam	
			10yr 4/6	5	C	PL		
10-18	10yr 4/1	75	10yr 3/1	20	C	M	sandy loam	Depleted matrix
			10yr 4/6	5	C	PL		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Woodward Lake City/County: Fulton County Sampling Date: 6/24/19

Applicant/Owner: Woodward Lake Properties, LLC State: NY Sampling Point: U7

Investigator(s): NCES Section, Township, Range: Town of Northampton

Landform (hillslope, terrace, etc.): Hillside Drainage Local relief (concave, convex, none): concave Slope (%): 0-3%

Subregion (LRR or MLRA): MLRA Lat: Long: Datum:

Soil Map Unit Name: Charlton fine sandy loam (81C) NWI classification:

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, etc.

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

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

This sample plot was obtained within forested upland that exists along the northern boundary of Wetland Area 2/2A.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ☐	No ☐	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:

No indicators of hydrology were observed.

VEGETATION – Use scientific names of plants.

Sampling Point: U7

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fagus grandifolia	35	yes	FACU
2. Acer rubrum	10	no	FAC
3. Quercus rubra	5	no	FACU
4. Prunus serotina	15	no	FACU
5. Acer saccharum	25	yes	FACU
6. Tsuga canadensis	10	no	FACU
7.			
	100	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Berberis thunbergii	25	yes	FACU
2. Fagus grandifolia	20	yes	FACU
3.			
4.			
5.			
6.			
7.			
	45	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Dryopteris intermedia	10	no	FACU
2. Polystichum agrostichoides	35	yes	FACU
3. Lycopodium clavatum	10	no	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	55	= Total Cover	

Woody Vine Stratum (Plot size: 15' radius)			
1.			
2. N/A			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	180	x 4 =	720
UPL species	0	x 5 =	0
Column Totals:	200 (A)		780 (B)

Prevalence Index = B/A = 3.90

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL

Sampling Point: U7

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
0-2	10yr 3/1	100	None				sediment	High organic content
2-8	10yr 4/4	90	10yr 3/1	5	C	M	sandy loam	
			10yr 3/2	5	C	M		
8-18	10yr 4/4	90	10yr 4/6	10	C	M	sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Woodward Lake City/County: Fulton County Sampling Date: 6/24/19

Applicant/Owner: Woodward Lake Properties, LLC State: NY Sampling Point: 8

Investigator(s): NCES Section, Township, Range: Town of Northampton

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 3-15%

Subregion (LRR or MLRA): MLRA Lat: Long: Datum:

Soil Map Unit Name: Becket-Tunbridge-Skerry complex (721C) NWI classification:

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, etc.

Hydrophytic Vegetation Present?	Yes ☑	No ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑	No ☐	
Wetland Hydrology Present?	Yes ☑	No ☐	If yes, optional Wetland Site ID: Wetland Area 37

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

This sample plot was obtained along the southeastern boundary of the wetland.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ☑	No ☐	Depth (inches): 3.5 Inches
Water Table Present?	Yes ☑	No ☐	Depth (inches): at surface
Saturation Present? (includes capillary fringe)	Yes ☐	No ☐	Depth (inches): N/A

Wetland Hydrology Present? Yes ☑ No ☐

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

Remarks:

This area is located along a tributary that extends downslope and into Wetland Area 16A.

VEGETATION – Use scientific names of plants.

Sampling Point: 8

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Betula populifolia	15	no	FAC
2. Acer rubrum	35	yes	FAC
3. Ulmus americana	5	no	FACW
4. Fraxinus pennsylvanica	5	no	FACW
5. Betula allegheniensis	15	no	FAC
6.			
7.			
	75	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Betula populifolia	35	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	35	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Symplocarpus foetidus	20	yes	OBL
2. Carex stricta	35	yes	OBL
3. Onoclea sensibilis	25	yes	FACW
4. Glyceria canadensis	15	no	OBL
5. Impatiens capensis	5	no	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 15' radius)			
1.			
2. N/A			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	40	x 2 =	80
FAC species	100	x 3 =	300
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	210 (A)		450 (B)

Prevalence Index = B/A = 2.14

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes [x] No [ ]

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

SOIL

Sampling Point: 8

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10yr 3/1	100	None				sediment	High organic content
4-10	10yr 3/1	90	10yr 4/1	5	D	M	sandy loam	
			10yr 4/6	5	C	PL		
10-18	10yr 4/1	75	10yr 3/1	20	C	M	sandy loam	Depleted matrix
			10yr 4/6	5	C	PL		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ 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:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Woodward Lake City/County: Fulton County Sampling Date: 6/24/19

Applicant/Owner: Woodward Lake Properties, LLC State: NY Sampling Point: U8

Investigator(s): NCES Section, Township, Range: Town of Northampton

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%

Subregion (LRR or MLRA): MLRA Lat: Long: Datum:

Soil Map Unit Name: Becket-Tunbridge-Skerry complex (721C) NWI classification:

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, etc.

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

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

This sample plot was obtained within forested uplands that are located along the southeastern boundary of Wetland 37.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ☐	No ☐	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:

No indicators of hydrology were observed.

VEGETATION – Use scientific names of plants.

Sampling Point: U8

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fagus grandifolia	35	yes	FACU
2. Acer rubrum	10	no	FAC
3. Tsuga canadensis	25	yes	FACU
4. Prunus serotina	5	no	FACU
5. Acer saccharum	10	no	FACU
6.			
7.			
	85	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Berberis thunbergii	25	yes	FACU
2. Fagus grandifolia	20	yes	FACU
3.			
4.			
5.			
6.			
7.			
	45	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Dryopteris intermedia	10	no	FACU
2. Polystichum agrostichoides	35	yes	FACU
3. Viola sororia	10	no	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	55	= Total Cover	

Woody Vine Stratum (Plot size: 15' radius)			
1.			
2. N/A			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	165	x 4 =	660
UPL species	0	x 5 =	0
Column Totals:	185 (A)		720 (B)

Prevalence Index = B/A = 3.89

Hydrophytic Vegetation Indicators:

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

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

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☐ No ☑

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

SOIL

Sampling Point: U8

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	10yr 3/1	100	None				sediment	High organic content
3-8	10yr 3/2	80	10yr 3/1	5	C	M	sandy loam	
			10yr 4/4	15	C	M		
8-18	10yr 4/4	80	10yr 3/2	20	C	M	sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ 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:

Appendix C

Supplemental Wetland Information

Supplemental Information for USACE Jurisdictional Determination - Woodward Lake Subdivision

Project Name:	Woodward Lake Subdivision
Current Property Owner:	Woodward Lake Properties, LLC c/o Mr. Robert Lesperence 155 Main Street – Suite D Oneonta, New York 13820 (607) 434-2678
Project Applicant:	Same as Owner
Environmental Consultant Wetland Delineator:	North Country Ecological Services, Inc. 25 West Fulton Street Gloversville, New York 12078 (518) 725-1007
Total Property Acreage:	1,169.63± acres
Total Acreage of Limits of Jurisdiction	708.9± acres
Site Coordinates:	43° 13' 28.7" N Latitude and 74° 12' 10.4" W Longitude.
Historic Land Use:	Residential Retreat
Current Land Use:	Fallow, wooded land. Recreational usage only
Average Annual Rainfall:	46.0 Inches
Average Annual Snowfall:	73.0 Inches
Site Location Map: Review Area Map:	See Figure 1 in the Delineation Report See Figure 1A in the Delineation Report
DEC Wetlands Map:	The subject property is within the boundaries of the Adirondack Park Agency (APA) and therefore, there are no NYS Dept. of Environmental Conservation (DEC) jurisdictional wetlands.
Soil Survey Map:	See Figure 2 in the Delineation Report

Regulated Wetlands:	See Table 2 of the Wetland Delineation Report
On-Site Streams:	48,482± linear feet
Traditional Navigable Waterways:	0± linear feet
Perennial Streams:	25,960± linear feet
Intermittent Streams:	22,522± linear feet

Wetland Connectivity with RPW's and TNW's:

The main sources of hydrology that influence the wetlands on the property appear to originate from direct precipitation, groundwater discharge, and surface water runoff. All of the streams identified are located in natural, eroded drainages that extend from the adjacent uplands toward Woodward Lake. Each of the streams dispense directly into the lake. Woodward Lake is impounded by the concrete dam with the spillway set at elevation 797'. Water flows over the dam, flows northeast and directly into the Sacandaga River. The Sacandaga River flows to the southeast and dispenses directly into the Great Sacandaga Lake.

The Great Sacandaga Lake is a man-made reservoir that was constructed to regulate floodwater water within the Hudson River basin. Its primary purpose is flood control of downstream locations. The Hudson River is classified by the USACE as a Traditional Navigable Waterway (TNW). Being that the reservoir is hydrologically contiguous with a tributary system of a TNW, all wetlands and waters that are hydrologically connected with it are subject to the regulatory jurisdiction of the USACE.

Potential Pollutants:

During the field review NCES did not identify any visible contaminants or direct point sources of pollution on the property.

Habitat for Species:

During the site assessments, NCES documented a variety of wildlife species on the property that included: white-tailed deer, black bear, beaver, ruffed grouse, barred owl, raven, crow, wild turkey, coyote, raccoon, muskrat, mink, cottontail rabbit, snowshoe hare, woodchuck, wood duck, mallard duck, green heron, blue heron as well as various songbirds and common amphibians such as green frog, wood frog, American toad and spring peepers. Woodward Lake supports largemouth bass, chain pickerel, bluegill, and a variety of minnows associated with a warm water fishery.