

Wetland Delineation Report
**Nevele Resort
Redevelopment Project**

U.S. Route 209
Town of Wawarsing
Ulster County, New York

FEBRUARY 25, 2014
last revised April 11, 2014



Prepared for:

Nevele Investors, LLC
P.O. Box 388
Ellenville, NY 12428

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1.0 CONTEXT OF THE SITE

The Nevele Resort project site is located in the Town of Wawarsing, Ulster County, New York, on the east side of US Route 209, approximately 0.6 mile south of the Village of Ellenville. The site currently comprises various buildings that were part of the original Nevele resort, the development of which began in 1903. It also includes a golf course, downhill ski run, and undeveloped forested land. The proposed project would involve demolition and selective renovation of the resort buildings, and redevelopment of the golf course.

Figure 1 shows the location of the site on the Ellenville, NY, USGS topographic quadrangle. All the parcels outlined in red in Figure 1, which constitute a total of 523.4 acres, are the property of the Nevele Hotel, LLC. The "Area of Potential Effect," (APE) a 99.5-acre area outlined in yellow, is the area where all proposed work on the project will take place.

On June 11th and 18th, and September 4th of 2012, Chazen environmental scientists delineated the boundaries of wetlands and stream channels on the site. Unfortunately, some of the wetland flagging was destroyed in the course of golf course maintenance before the locations of the flags could be surveyed. Therefore, several of the wetlands were re-delineated and some additional wetlands were delineated on November 24, 2013. The flags used to mark the location of points on the boundaries were located and mapped by land surveyors of the Chazen Companies on November 24, 2013. That map is presented in Appendix A.

2.0 MAPPED RESOURCES

2.1 Topography

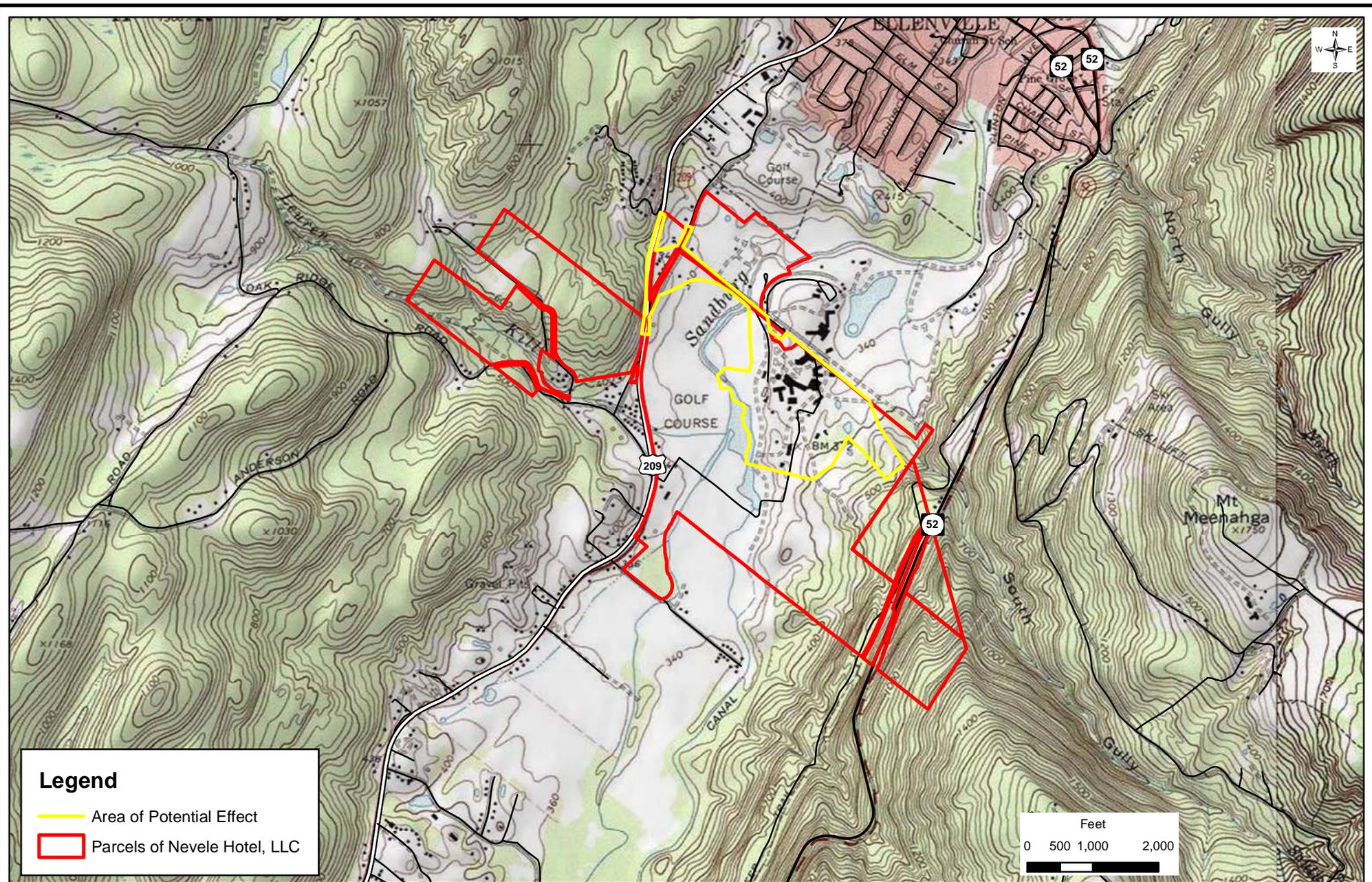
Figure 1 is a topographic map of the section of the Town of Wawarsing where the project site is located. The site lies in the bottom of the Rondout valley, which runs along the western edge of the Shawangunk Ridge (NYSDOT, 2013). At this location, the valley is occupied by Sandburg Creek, which connects to Rondout Creek approximately 2.8 miles northeast of the Nevele resort. Elevations within the APE vary from 320 to 500 feet above mean sea level. On either side of the valley, the highlands within 1.5 mile of the site rise to elevations well above 1,000 feet.

2.2 Soils

According to soil survey map data of the USDA Natural Resources Conservation Service (2011), there are 12 soil map units within the Site. Figure 2 shows those map units, over which are superimposed the boundaries of the Nevele properties and the APE of the resort renovation project¹. Each map unit has a name based on the predominant soil type within that unit.

Table 1 lists the soil map units within the APE and the percentage of the component soils of each map unit that are identified as hydric. Nearly all of the map units are non-hydric; that is, they have no component soils that are hydric. The only map units that have hydric components are Raynham silt loam and cut and fill land, of which 10% and 5%, respectively, of the map unit areas are composed of hydric soil types.

¹ The original soil data were mapped at a scale of 1:15,840; the soil unit boundaries shown on Figure 2 are at a scale of 1:12,000, and there may be some distortion of soil boundaries.



Legend

- Area of Potential Effect
- Parcels of Nevele Hotel, LLC



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 Environmental Scientists
 Landscape Architects

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Proposed Nevele Resort, Casino and Spa Redevelopment Project

Site Location Map

Town of Wawarsing - Ulster County, New York

USGS Topographic Map of the Ellenville and Napanoch New York Quadrangles

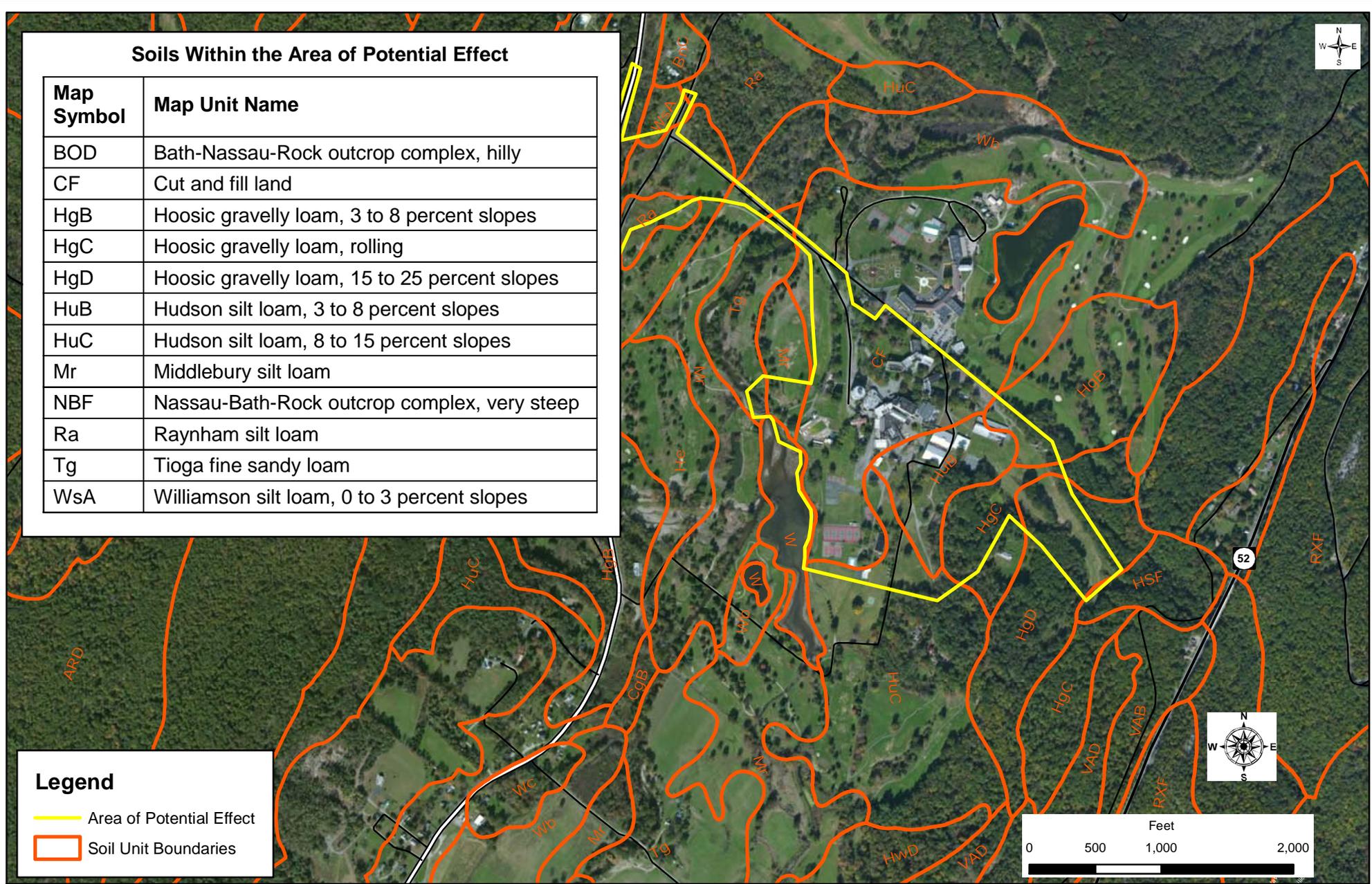
Drawn:	GHM
Date:	01/06/2014
Scale:	1:24,000
Project:	31225.00
Figure:	1

Soils Within the Area of Potential Effect

Map Symbol	Map Unit Name
BOD	Bath-Nassau-Rock outcrop complex, hilly
CF	Cut and fill land
HgB	Hoosic gravelly loam, 3 to 8 percent slopes
HgC	Hoosic gravelly loam, rolling
HgD	Hoosic gravelly loam, 15 to 25 percent slopes
HuB	Hudson silt loam, 3 to 8 percent slopes
HuC	Hudson silt loam, 8 to 15 percent slopes
Mr	Middlebury silt loam
NBF	Nassau-Bath-Rock outcrop complex, very steep
Ra	Raynham silt loam
Tg	Tioga fine sandy loam
WsA	Williamson silt loam, 0 to 3 percent slopes

Legend

-  Area of Potential Effect
-  Soil Unit Boundaries



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Proposed Nevele Resort, Casino and Spa Redevelopment Project

Soils Map

Town of Wawarsing - Ulster County, New York

Drawn:	GHM, RPF
Date:	01/06/2014
Scale:	1:12,000
Project:	31225.00
Figure:	2

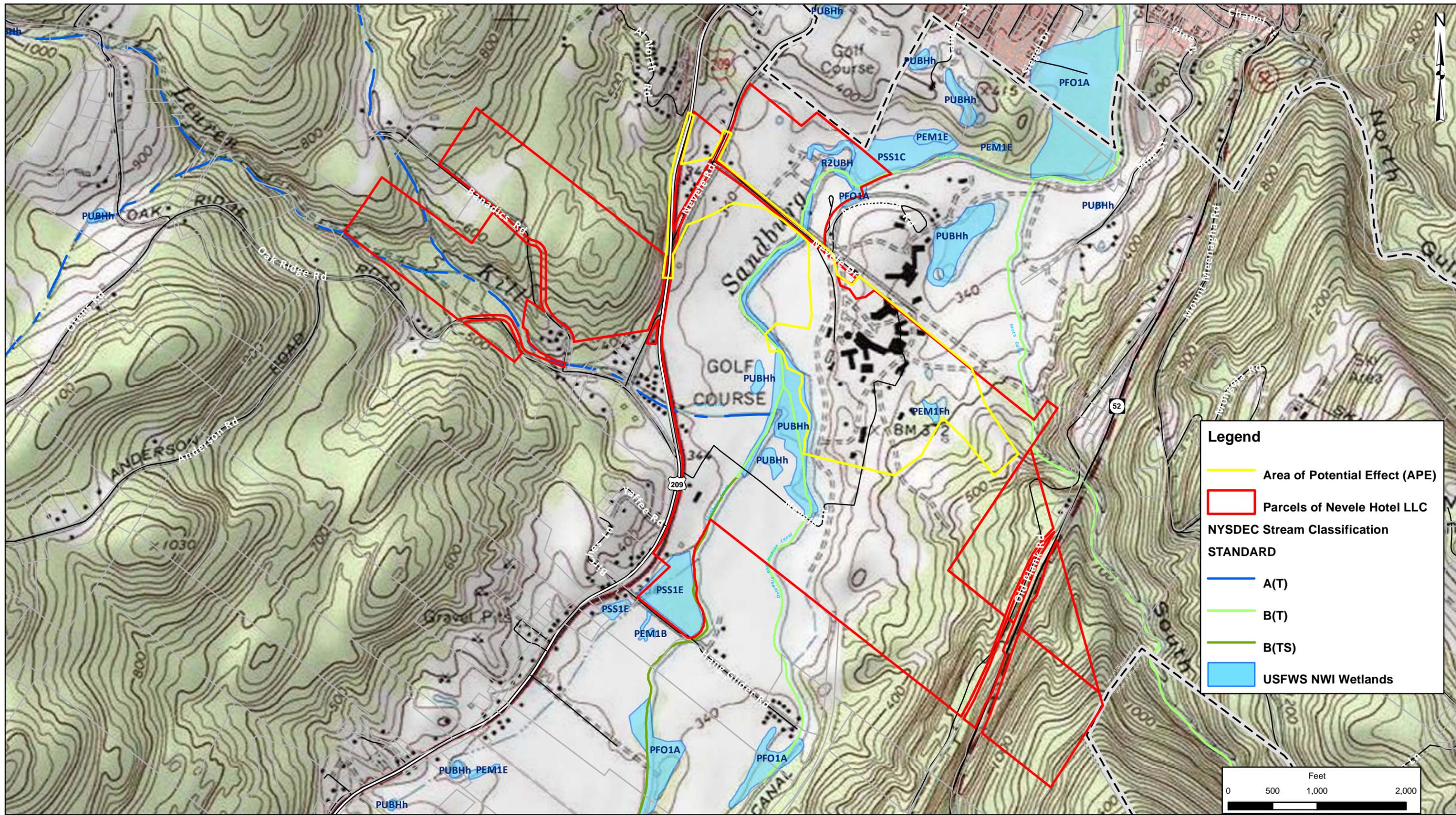
Table 1 Hydric Ratings of Soils Mapped Within the Area of Potential Effect

Map Unit Name	Map Symbol	Hydric Percent of Map Unit	Hydric Category
Bath-Nassau-Rock outcrop complex, hilly	BOD	0	Nonhydric
Cut and fill land	CF	5	Predominantly nonhydric
Hoosic gravelly loam, 3 to 8 percent slopes	HgB	0	Nonhydric
Hoosic gravelly loam, rolling	HgC	0	Nonhydric
Hoosic gravelly loam, 15 to 25 percent slopes	HgD	0	Nonhydric
Hudson silt loam, 3 to 8 percent slopes	HB	0	Nonhydric
Hudson silt loam, 8 to 15 percent slopes	HuC	0	Nonhydric
Middlebury silt loam	Mr	0	Nonhydric
Nassau-Bath-Rock outcrop complex, very steep	NBF	0	Nonhydric
Raynham silt loam	Ra	10	Predominantly nonhydric
Tioga fine sandy loam	Tg	0	Nonhydric
Williamson silt loam, 0 to 3 percent slopes	WsA	0	Nonhydric

2.3 Wetlands and Streams

Figure 3, “Mapped Wetlands and Streams,” illustrates the location of wetlands mapped by the US Fish and Wildlife Service under the National Wetlands Inventory (NWI). This is not a regulatory map but rather a tool for identifying the location of the potential wetlands in the field. This figure also illustrates the location of the streams mapped by the New York State Department of Environmental Conservation (NYSDEC). There are no NYSDEC-mapped wetlands within the area depicted in Figure 3. The wetlands mapped by the NWI that are located within the APE are mainly associated with Sandburg Creek and the old impoundment that backed up water on that creek and the tributary that is the remnant of the Delaware and Hudson Canal. Also, the NWI map identified a small, isolated wetland in the eastern part of the APE, south of the lower end of the downhill ski run.

Sandburg Creek at this location is identified as a Class B(T) NYSDEC stream, as is the tributary that is the canal remnant. A Class B stream is regulated by the NYSDEC under Article 15, “Use and Protection of Waters.” Sandburg Creek empties into Rondout Creek approximately 3.2 miles downstream and to the northeast of the project site. Rondout Creek empties into the Hudson River at Kingston. The project site is approximately 38 river miles from the Hudson River. Straight-line distance (due east) from the project site to the Hudson River is approximately 23 miles.



Legend

- Area of Potential Effect (APE)
- Parcels of Nevele Hotel LLC

NYSDEC Stream Classification STANDARD

- A(T)
- B(T)
- B(TS)
- USFWS NWI Wetlands



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Proposed Nevele Resort, Casino and Spa Redevelopment Project

Wetlands, Streams, and Waterbodies Map

Town of Wawarsing - Ulster County, New York

Drawn:	RPF
Date:	01/14/2014
Scale:	1:12,000
Project:	31225.00
Figure:	3

3.0 SITE VEGETATION

A list of all the plant species identified in the course of the wetland delineation work is provided in Table 2. This can be considered a partial list, since there was not extensive study of vegetation in the uplands on the site.

Table 2 Plants Identified Growing on the Project Site

Scientific Name*	Common Name	Wetland Indicator†
Trees		
<i>Acer platanoides</i>	Norway Maple	UPL
<i>Acer rubrum</i>	Red Maple	FAC
<i>Acer saccharinum</i>	Silver Maple	FACW
<i>Acer saccharum</i>	Sugar Maple	FACU
<i>Betula nigra</i>	River Birch	FACW
<i>Carya ovata</i>	Shagbark Hickory	FACU
<i>Catalpa speciosa</i>	Northern Catalpa	FACU
<i>Fagus grandifolia</i>	American Beech	FACU
<i>Fraxinus pennsylvanica</i>	Green Ash	FACW
<i>Gleditsia triacanthos</i>	Honey-Locust	FAC
<i>Juglans nigra</i>	Black Walnut	FACU
<i>Liriodendron tulipifera</i>	Tuliptree	FACU
<i>Malus pumila</i>	Apple	NL
<i>Morus alba</i>	White Mulberry	FACU
<i>Picea abies</i>	Norway Spruce	NL
<i>Picea pungens</i>	Blue Spruce	FACU
<i>Pinus strobus</i>	Eastern White Pine	FACU
<i>Platanus occidentalis</i>	American Sycamore	FACW
<i>Populus deltoides</i>	Eastern Cottonwood	FAC
<i>Quercus alba</i>	Northern White Oak	FACU
<i>Quercus bicolor</i>	Swamp White Oak	FACW
<i>Quercus prinus</i>	Chestnut Oak	UPL
<i>Quercus rubra</i>	Northern Red Oak	FACU
<i>Quercus velutina</i>	Black Oak	NL
<i>Salix nigra</i>	Black Willow	OBL
<i>Salix X pendulina</i>	Weeping willow	FACW

Scientific Name*	Common Name	Wetland Indicator†
<i>Tilia americana</i>	American Basswood	FACU
<i>Tsuga canadensis</i>	Eastern Hemlock	FACU
<i>Ulmus americana</i>	American Elm	FACW
Shrubs and woody vines		
<i>Cornus alba</i>	Red Osier	FACW
<i>Cornus amomum</i>	Silky Dogwood	FACW
<i>Cornus racemosa</i>	Gray Dogwood	FAC
<i>Corylus cornuta</i>	Beaked Hazelnut	FACU
<i>Hamamelis virginiana</i>	American Witch-Hazel	FACU
<i>Lindera benzoin</i>	Northern Spicebush	FACW
<i>Parthenocissus quinquefolia</i>	Virginia-Creeper	FACU
<i>Salix discolor</i>	Pussy Willow	FACW
<i>Sambucus nigra</i>	Black Elder	FACW
<i>Toxicodendron radicans</i>	Eastern Poison-Ivy	FAC
<i>Vitis sp.</i>	Grape	unknown
Herbaceous plants		
<i>Achillea millefolium</i>	Common Yarrow	FACU
<i>Agrostis stolonifera</i>	Spreading Bent	FACW
<i>Alliaria petiolata</i>	Garlic-Mustard	FACU
<i>Arctium minus</i>	Lesser Burdock	FACU
<i>Artemisia vulgaris</i>	Common Wormwood	UPL
<i>Asclepias syriaca</i>	Common Milkweed	UPL
<i>Calamagrostis canadensis</i>	Bluejoint	OBL
<i>Caltha palustris</i>	Yellow Marsh-Marigold	OBL
<i>Calystegia sepium</i>	Hedge False Bindweed	FAC
<i>Carex bromoides</i>	Brome-Like Sedge	FACW
<i>Carex crinita</i>	Fringed Sedge	OBL
<i>Carex gynandra</i>	Nodding Sedge	OBL
<i>Carex lurida</i>	Sallow Sedge	OBL
<i>Carex rostrata</i>	Swollen Beaked Sedge	OBL
<i>Carex scoparia</i>	Pointed Broom Sedge	FACW
<i>Carex vulpinoidea</i>	Common Fox Sedge	OBL

Scientific Name*	Common Name	Wetland Indicator†
<i>Ceratophyllum demersum</i>	Coon's-Tail	OBL
<i>Cichorium intybus</i>	Chicory	FACU
<i>Cirsium vulgare</i>	Bull Thistle	FACU
<i>Coronilla varia</i>	Crown Vetch	NL
<i>Daucus carota</i>	Queen Anne's-Lace	UPL
<i>Dichanthelium clandestinum</i>	Deer-Tongue Rosette Grass	FACW
<i>Diplazium pycnocarpon</i>	Glade Fern	FAC
<i>Epilobium coloratum</i>	Purple-Leaf Willowherb	OBL
<i>Erigeron annuus</i>	Eastern Daisy Fleabane	FACU
<i>Erigeron canadensis</i>	Canadian Horseweed	FACU
<i>Fallopia japonica</i>	Japanese Knotweed	FACU
<i>Fallopia scandens</i>	Climbing Black-Bindweed	FAC
<i>Galeopsis bifida</i>	Bifid-Lip Hemp-Nettle	NL
<i>Geranium maculatum</i>	Spotted Crane's-Bill	FACU
<i>Glyceria striata</i>	Fowl Manna Grass	OBL
<i>Hypericum sp.</i>	St. John's-Wort	unknown
<i>Impatiens capensis</i>	Spotted Touch-Me-Not	FACW
<i>Juncus effusus</i>	Lamp Rush	OBL
<i>Juncus tenuis</i>	Lesser Poverty Rush	FAC
<i>Lamium amplexicaule</i>	Henbit Deadnettle	NL
<i>Lemna minor</i>	Common Duckweed	OBL
<i>Leucanthemum vulgare</i>	Ox-Eye Daisy	UPL
<i>Lysimachia nummularia</i>	Creeping-Jenny	FACW
<i>Lythrum salicaria</i>	Purple Loosestrife	OBL
<i>Myosotis scorpioides</i>	True Forget-Me-Not	OBL
<i>Nuphar lutea</i>	Yellow Pond-Lily	OBL
<i>Oenothera biennis</i>	King's-Cureall	FACU
<i>Onoclea sensibilis</i>	Sensitive Fern	FACW
<i>Peltandra virginica</i>	Green Arrow-Arum	OBL
<i>Persicaria sagittata</i>	Arrow-Leaf Tearthumb	OBL
<i>Persicaria virginiana</i>	Jumpseed	FAC
<i>Phleum pratense</i>	Common Timothy	FACU

Scientific Name*	Common Name	Wetland Indicator†
<i>Phragmites australis</i>	Common Reed	FACW
<i>Plantago lanceolata</i>	English Plantain	FACU
<i>Plantago major</i>	Great Plantain	FACU
<i>Poa annua</i>	Annual Blue Grass	FACU
<i>Poa trivialis</i>	Rough-Stalk Blue Grass	FACW
<i>Rubus allegheniensis</i>	Allegheny Blackberry	FACU
<i>Rubus flagellaris</i>	Whiplash Dewberry	FACU
<i>Rubus idaeus</i>	Common Red Raspberry	FACU
<i>Rumex crispus</i>	Curly Dock	FAC
<i>Sagittaria sp.</i>	Arrowhead	OBL
<i>Saponaria officinalis</i>	Bouncing-Bet	FACU
<i>Sisyrinchium angustifolium</i>	Narrow-Leaf Blue-Eyed-Grass	FAC
<i>Solidago canadensis</i>	Canada Goldenrod	FACU
<i>Solidago gigantea</i>	Late Goldenrod	FACW
<i>Solidago rugosa</i>	Wrinkle-Leaf Goldenrod	FAC
<i>Turritis glabra</i>	Tower Rocketcross	NL
<i>Tussilago farfara</i>	Colt's-Foot	FACU
<i>Typha sp.</i>	Cattail	OBL
<i>Urtica dioica</i>	Stinging Nettle	FAC
<i>Valeriana officinalis</i>	Common Valerian	NL
<i>Viola sp.</i>	Violet	unknown

*Scientific names, common names, and wetland indicators are obtained from the National Wetland Plant List (Lichvar and Kartesz, 2012). For plants not on the list (i.e. having an “NL” wetland indicator), scientific and common names are taken from Weldy et al. (2013).

†The Wetland Indicator refers to the affinity of the plant for wetland environments:

Obligate Wetland (OBL) = Almost always occur in wetlands

Facultative Wetland (FACW) = Usually occur in wetlands, but may occur in non-wetlands

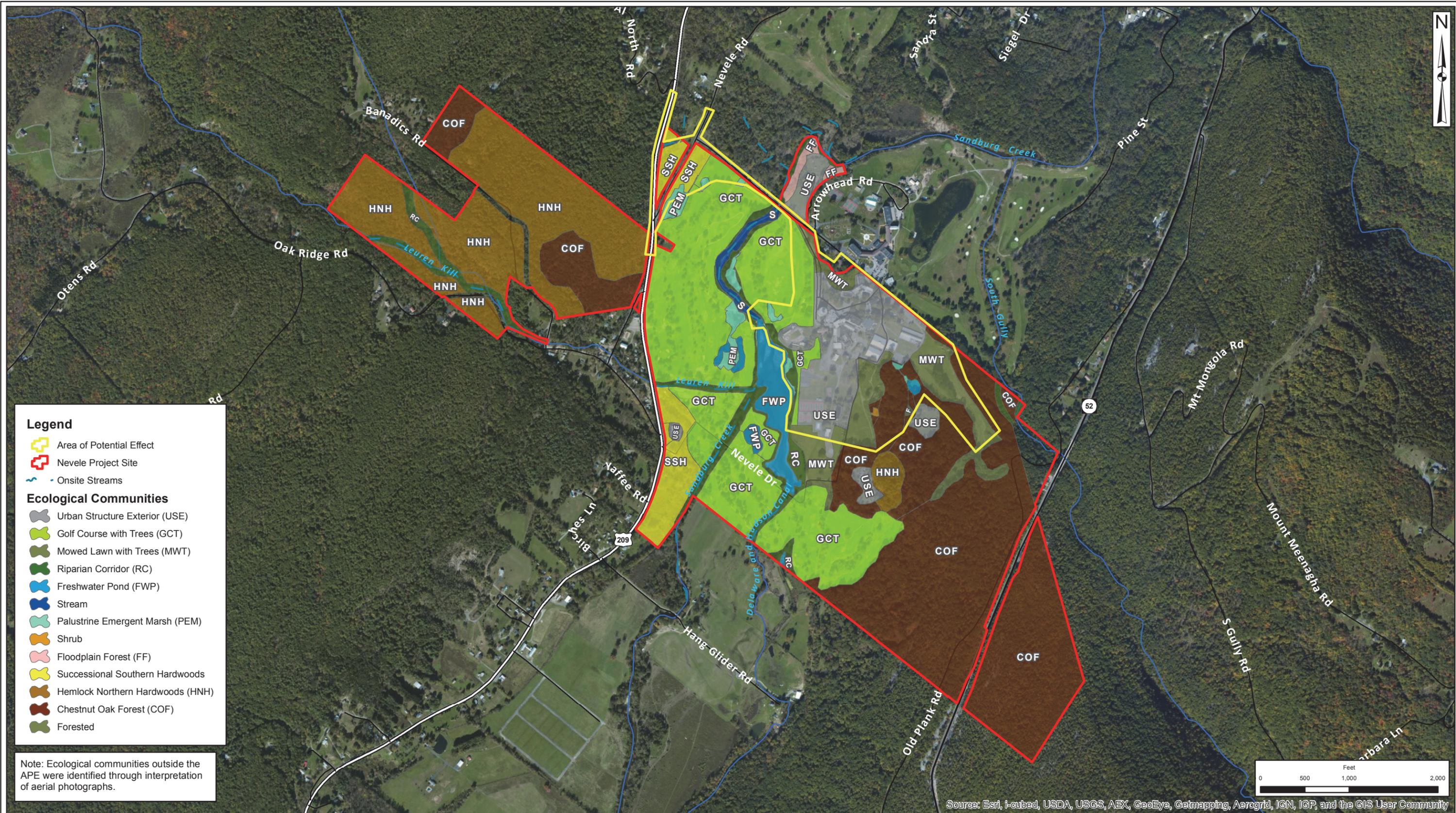
Facultative (FAC) = Occur in wetlands or non-wetlands

Facultative Upland (FACU) = Usually occur in non-wetlands, but may occur in wetlands

Obligate Upland (UPL) = Almost never occur in wetlands

Plants not on the list (NL) are considered to be the same as UPL for delineation purposes.

The ecological communities found within the APE are illustrated on Figure 4, “Ecological Communities Map.” Communities on the parcels owned by Nevele Hotels LLC, but outside of the APE were identified through interpretation of aerial photographs. Following are brief descriptions of these communities, which are based on the ecological community classification system used by the New York Natural Heritage Program (Edinger et al. 2002).



Legend

- Area of Potential Effect
- Nevele Project Site
- Onsite Streams

Ecological Communities

- Urban Structure Exterior (USE)
- Golf Course with Trees (GCT)
- Mowed Lawn with Trees (MWT)
- Riparian Corridor (RC)
- Freshwater Pond (FWP)
- Stream
- Palustrine Emergent Marsh (PEM)
- Shrub
- Floodplain Forest (FF)
- Successional Southern Hardwoods
- Hemlock Northern Hardwoods (HNH)
- Chestnut Oak Forest (COF)
- Forested

Note: Ecological communities outside the APE were identified through interpretation of aerial photographs.



Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

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Nevele Resort, Casino and Spa Redevelopment Project

Ecological Community/Cover Type Map

Arrowhead Road, Town of Wawarsing - Ulster County, New York

Drawn:	GHM, RPF, RL-B
Date:	04/12/14
Scale:	1 inch=1,000 feet
Project:	31225.00
Figure:	3.6.3

Palustrine Emergent Marsh. A number of wetlands on the site are composed of this community, which is dominated by herbaceous plants. These include species of sedges (e.g., *Carex vulpinoidea*, *C. scoparia*, *C. crinita*, and *C. lurida*), cattail (*Typha* spp.), rushes (*Juncus effusus* and *J. tenuis*), sensitive fern (*Onoclea sensibilis*), purple loosestrife (*Lythrum salicaria*), common reed (*Phragmites australis*), spreading bent grass (*Agrostis stolonifera*), arrow-leaf tearthumb (*Persicaria sagittata*), spotted touch-me-not (*Impatiens capensis*), and goldenrods (*Solidago gigantea* and *S. rugosa*). Mixed within the emergent marshes and mowed golf course are areas of old field vegetation containing some broadleaved herbs and grasses such as Canada goldenrod (*Solidago canadensis*), common milkweed (*Asclepias syriaca*), English plantain (*Plantago lanceolata*), annual blue grass (*Poa annua*), and common timothy (*Phleum pratense*). These old field areas are too small to map individually.

Forest and Shrub Wetlands – There are small areas of forested and shrub wetlands located on the site, mainly in the eastern portion. These wetlands are dominated by The shrub swamp areas include shrubs and trees such as dogwoods (*Cornus amomum*, *C. alba*, and *C. racemosa*), northern spicebush (*Lindera benzoin*), pussy willow (*Salix discolor*), silver maple (*Acer saccharinum*), red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*), and American elm (*Ulmus americana*).

Streams – A variety of streams are located on this site. Sandburg Creek exits the site under Arrowhead Road to the north, and flows north. On-site it is 3rd order stream, approximately 20 to 50 feet wide. It has a sandy bottom, steep sandy banks and is meandering. A dam is located downstream of Sandburg Creek's confluence with the Delaware and Hudson Canal. The Delaware and Hudson Canal also forms the freshwater pond as described below.

Freshwater Pond. There is one freshwater pond within the APE that is not closely connected to any of the streams on site. It lies in the eastern part of the APE, just south of the lower end of the downhill ski run. The delineation of the pond and its wetlands took place in late November. Consequently, there was little evidence of the aquatic vegetation of the pond at that time. However, some aerial photos taken during the growing season indicate that the surface of the pond becomes covered with floating vegetation, possibly duckweed. Therefore, it is likely that this pond can be classified as a eutrophic pond, as defined by Edinger et al. (2002). In addition, a dam, damaged by Hurricane Irene in 2011, lies downstream of the confluence of the Delaware and Hudson Canal and Sandburg Cree, and creates a freshwater pond upstream of this dam.

Riparian Corridor - This community occurs as an upland strip running along the streams on the site, mainly Sandburg Creek and its tributary, the old Delaware and Hudson Canal. This is not an ecological community defined by Edinger et al. (2002), but consists of upland forest and shrub areas along the streams. Along Sandburg Creek, there are significant areas of Japanese knotweed along the upland banks. Trees along this area include arborvitae (*Thuja occidentalis*), locust, sugar maple (*Acer saccharum*), red maple (*Acer rubrum*), black locust (*Robinia pseudoacacia*), staghorn sumac (*Rhus typhina*). Patches of dogwood (*Cornus amomum*, *C. alba*, and *C. racemosa*) were located along the edge of the stream.

Successional Southern Hardwoods. In the westernmost part of the APE, on either side of Nevele Road, there are patches of young forest composed of young hardwood trees, such as red maple, American basswood (*Tilia americana*), American elm, and green ash, along with some white pine (*Pinus strobus*).

Chestnut Oak Forest. This forest occupies most of the wooded area in the easternmost part of the APE. Chestnut oak (*Quercus prinus*), black oak (*Q. velutina*), northern red oak (*Q. rubra*), white oak (*Q. alba*), and red maple are common here. In places, there is some white pine and eastern hemlock (*Tsuga canadensis*) mixed in.

Golf Course With Trees. Much of the western part of the APE consists of golf course lands with scattered or clustered trees. Although the golf course on this property has not been open for playing for several years, it has been maintained through regular mowing in order to deter the growth of undesirable plants.

Mowed Lawn With Trees. The areas mapped as this community type are in the eastern part of the APE, and include the downhill ski run. Although the objective of maintaining turf in this area is similar to that in the golf course area, a different quality of turf would exist here.

Urban Structure Exterior. Strictly speaking, this community type pertains to the roofs and exterior walls of buildings, which present sites for roosting and nesting of birds, bats, and other animals. The area mapped as this community type also contains small patches of mowed lawn, trees, and other landscape plantings, as well as roadways and parking lots.

4.0 DESCRIPTION OF WETLANDS AND STREAMS

The identification of wetlands and delineation of their boundaries was carried out according to the methods in the Corps of Engineers delineation manual (Environmental Laboratory, 1987) and the regional supplement to that manual (USACOE, 2011). Points on the wetland boundaries were marked using pieces of vinyl flagging tape tied to trees and shrubs or vinyl flags attached to wire stakes. On each flag was written an ID number consisting of a letter identifying the line segment plus a sequential number.

The delineated wetland boundaries are illustrated on Sheet W1, "Overall Wetland Map" (Appendix A). Table 3 summarizes the area within the APE, geographic coordinates of centroids, and Cowardin Class of each wetland and stream segment delineated. Specific details of vegetative strata, hydrology and soils within the wetlands and the adjacent uplands are provided on the datasheets in Appendix B. Photographs of the wetlands are presented in Appendix C.

Table 3 Aquatic Resources on or Adjacent to the Project Site

Wetland or Stream	Jurisdiction	Area (s.f.) within APE	Centroid (on or adjacent to site)*		Cowardin Class of Wetland	Cowardin Class of Stream
			Latitude	Longitude		
Wetland A	ACOE	5,117	41° 41' 10" N	74° 24' 21" W	PEM2	
Wetland B	ACOE	8,209	41° 41' 10" N	74° 24' 27" W	PEM2	
Wetland C	ACOE	30,770	41° 42' 09" N	74° 24' 31" W	PEM2	
Wetland D	ACOE	2,681	41° 42' 09" N	74° 24' 33" W	PEM2/SS1	
Stream E/F (part of Stream 3)	ACOE	2,212	41° 42' 14" N	74° 24' 31" W		R3RB2
Wetland G	ACOE	6,008	41° 42' 15" N	74° 24' 29" W	PEM2	
Wetland K/AAA (Stream 1B)	ACOE	1,775	41° 42' 07" N	74° 24' 16" W	PEM2/FO1	R2UB1/2
Wetland AA/M/N/O (Streams 1A & 2)	ACOE	70,106	41° 41' 46" N	74° 24' 14" W	PEM2/FO1	R2UB1/2
Wetland P	ACOE	16,938	41° 41' 55" N	74° 24' 17" W	PEM5	
Stream AA/BB (part of Stream 3)	ACOE	38	41° 42' 14" N	74° 24' 34" W		R3RB2
Wetland AX	None - isolated	6,501	41° 41' 44" N	74° 23' 56" W	PFO1	
Wetland BA/CC	None - isolated	30,406	41° 41' 48" N	74° 23' 57" W	PEM2/ PRB2H	
Wetland DD	None - isolated	6,281	41° 41' 45" N	74° 24' 01" W	PSS1	
Total – ACOE-jurisdictional wetlands		143,854 s.f.	(3.30 acres)			
Total – non-jurisdictional wetlands		43,188 s.f.	(0.99 acre)			

*The datum of the geographic coordinates is NAD83.

Similarly, Table 4 summarizes the characteristics of the streams found within the APE. Stream 1 is Sandburg Creek, the waterway into which all runoff from the site ultimately drains. Stream 1A is the segment of Sandburg Creek immediately downstream of the confluence with Stream 2. Stream 1B is the short segment at the point where Arrowhead Drive crosses the creek.

Table 4 Characteristics of the Streams within the Project Area

Stream	Order	Regime*	Length in APE (ft)	Width (ft)	Geographic Coordinates			Jurisdiction
					Point	Latitude	Longitude	
1 (1A/1B)	3	PRPW	230	50-60	Begin	41° 41' 54" N	74° 24' 19" N	ACOE, NYSDEC
					End	41° 42' 07" N	74° 24' 16" N	
2	1	PRPW	930	15-40	Begin	41° 41' 42" N	74° 24' 15" N	ACOE, NYSDEC
					End	41° 41' 53" N	74° 24' 18" N	
3	1	IRPW	245	3-6	Begin	41° 42' 14" N	74° 24' 34" N	ACOE
					End	41° 42' 14" N	74° 24' 31" N	

*PRPW = Perennial Relatively Permanent Waterway

5.0 JURISDICTION OVER STREAMS AND WETLANDS ON THE PROJECT SITE

According to the wetland maps published by the NYSDEC, there are no state-regulated wetlands on or adjacent to the Nevele resort property.² However, as discussed above, the main stream on the site, Sandburg Creek, and its tributary, the old Delaware and Hudson Canal, are classified as B(T) streams. These are streams 1 and 2, respectively, on the wetland delineation map (Sheet W1). Therefore, these are protected streams and a NYSDEC permit would be required for activities that disturb their bed or banks. Stream 3, parts of which are bounded by lines AA, BB, E, and F, is not mapped by NYSDEC. While this stream was flowing on the occasions when observed, Chazen does not believe it has perennial flow; as such, it would not be regulated by NYSDEC under Article 15.³ The characteristics of all the streams within the APE are summarized in Table 4.

The status of the delineated wetlands with regards to the jurisdiction of the US Army Corps of Engineers depends on whether they have a significant nexus to traditional navigable waters. If we base our stream order determination on the streams that appear on the 1:24,000-scale USGS topographic maps, then Sandburg Creek is a third-order stream at this location. This third-order section starts approximately 9.8 river miles upstream from the site and ends approximately 3.2 miles downstream from the site, where it joins Rondout Creek. Rondout Creek is considered to be a traditional navigable water (TNW). From its confluence with Sandburg Creek, Rondout Creek flows another 35 miles before flowing into the Hudson River.

On the basis of in-field observation and analysis, the wetlands and streams can be placed in three categories: (1) observed to have a nexus to a TNW, (2) assumed to have a nexus to a TNW, and (3) lacking a nexus to a TNW. The streams falling into each category are described below.

Observed Nexus:

Given the relationships discussed above, Sandburg Creek and any streams or wetlands directly

² Wetland and stream data obtained from NYDEC Environmental mapper internet application, accessed at <http://www.dec.ny.gov/imsmaps/ERM/viewer.htm>

³ See 6 NYCRR §855.2(k).

connected to it have a significant nexus to a traditional navigable water. Those streams and wetland that were observed to have such a connection in the field are the following:

- Streams 1A and 1B
- Stream 2
- Stream 3
- Wetland A
- Wetland G
- Wetland E/F
- Wetland AA/BB
- Wetland K/AAA
- Wetland AA/M/N/O

Assumed Nexus:

Other wetlands on the site were not observed to have a hydrologic connection. These are wetlands B, C, D, and P. Wetlands B and P are within the Nevele golf course, and drainage from them is likely to be piped to Sandburg Creek. At its northern end, wetland C narrows to become a ditch, at the end of which is a culvert, which is likely to connect to wetland B or to an underground piping system in the golf course. Wetland D is likely to have a connection to wetland C under Nevele Road.

Lacking a Nexus:

The connection of wetland BA/CC to surface waters is not apparent. The upper part of this wetland is a pond that may sometimes overflow northwestward and downslope, to a flat area next to a basketball court. Chazen did not observe any evidence that water from that wetland is collected and piped to any surface water. Wetlands AX and DD occupy isolated basins, and there is no indication that they have any surficial outflow.

Table 5 summarizes the connections (or lack thereof) between the delineated aquatic resources within the APE and traditional navigable waters via Sandburg Creek. As indicated in Table 3, the wetlands streams under ACOE jurisdiction comprise 143,854 square feet or 3.30 acres, and the isolated, non-jurisdictional wetlands comprise 43,188 square feet or 0.99 acre.

Table 5 Summary of Wetland Connections to Traditional Navigable Waters

Wetland or Stream	Significant Nexus?	Means of Connection to a Traditional Navigable Water
Wetland A	Yes	Drained by a stream that connects to Sandburg Creek north of the site. Sandburg Creek connects to Rondout Creek, a traditional navigable water.
Wetland B	Yes	Drains southeastward, outside of the APE, through the golf course and into Sandburg Creek.
Wetland C	Yes	A culvert at the northernmost part of the wetland appears to connect to wetland B.
Wetland D	Yes	This appears to drain eastward, under Nevele Road, either through a culvert, which was not found, or by seepage through the soil.
Stream E/F	Yes	This is a stream with some riparian wetland, which connects to Sandburg Creek to the north of the APE. It is a segment of Stream 3.
Wetland G	Yes	This wetland is adjacent to stream E/F and may receive overflow from that stream; it may drain eastward into the ditch along Nevele Road. In turn, that ditch connects to a downstream part of the stream bounded by lines E and F.
Wetland K/AAA	Yes	This is a segment of riparian wetlands on Sandburg Creek
Wetland AA/M/N/O	Yes	This consists of riparian wetlands along a section of Sandburg Creek and its tributary, which is a remnant of the old Delaware and Hudson Canal.
Wetland P	Yes	This lies adjacent to Sandburg Creek, separated from it by a golf course cart path, and possibly piped to the creek.
Stream AA/BB	Yes	This is a small upstream portion of stream 3, on the west side of US Route 209.
Wetland AX	No	No connection found to a stream system; this is an isolated wetland basin
Wetland BA/CC	No	No connection found to a stream system; this is an isolated wetland basin
Wetland DD	No	No connection found to a stream system; this is an isolated wetland basin

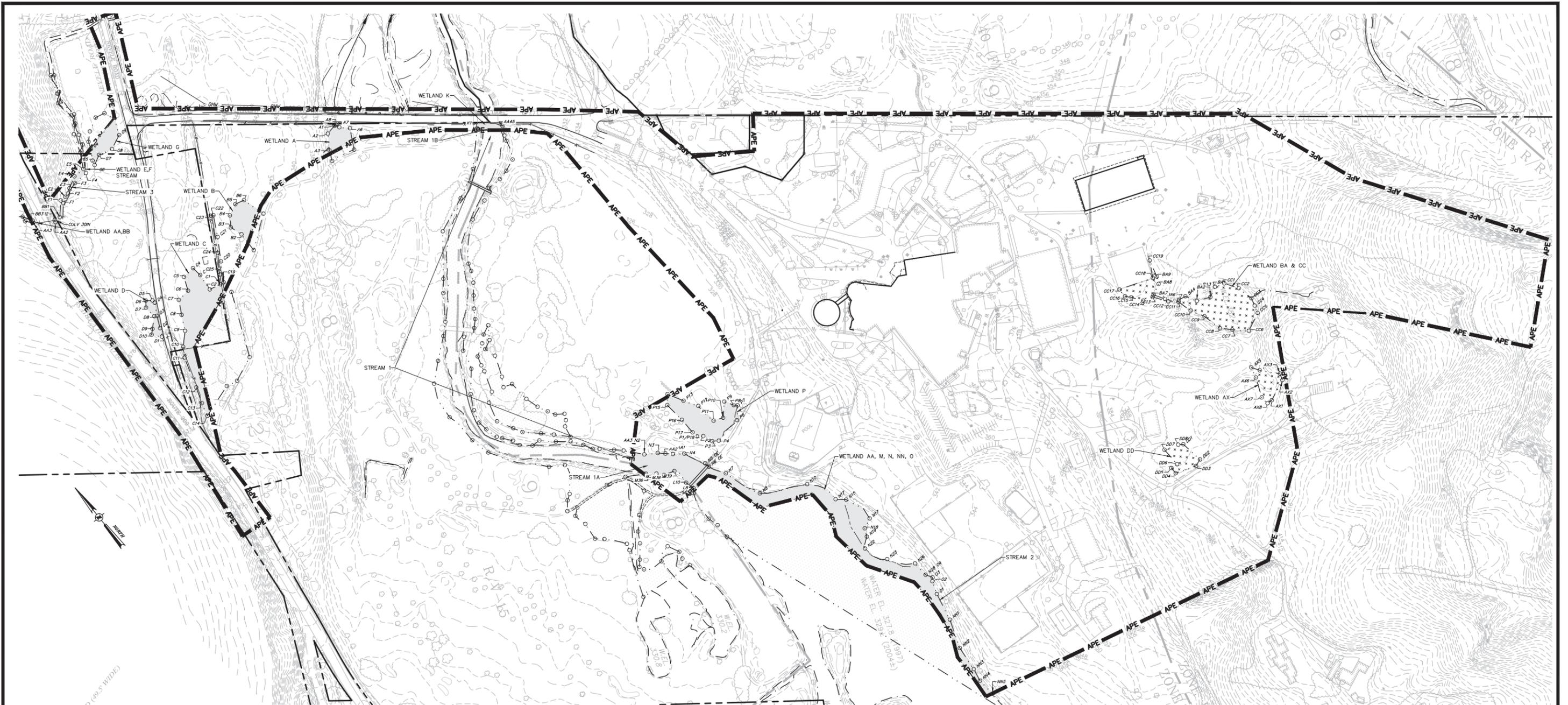
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APPENDIX A

Wetland and Stream Delineation Map



LEGEND:

	EXISTING FLAG NUMBER
	WETLANDS BOUNDARY
	ACOE WETLANDS
	NON-JURISDICTIONAL WETLANDS
	EXISTING TREE LINE
	EXISTING OVERHEAD WIRES
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EDGE OF PAVEMENT
	STREAM
	EXISTING DRAINAGE DITCH
	LIMITS OF AREA OF POTENTIAL EFFECT

WETLAND TABLE						
Wetland or Stream	Jurisdiction	Area (s.f.) within APE	Centroid (on or adjacent to site)*		Cowardin Class of Wetland	Cowardin Class of Stream
			Latitude	Longitude		
Wetland A	ACOE	5,117 s.f.	41°41'10" N	74°24'21" W	PEM2	
Wetland B	ACOE	8,209 s.f.	41°41'10" N	74°24'27" W	PEM2	
Wetland C	ACOE	30,770 s.f.	41°42'09" N	74°24'31" W	PEM2	
Wetland D	ACOE	2,681 s.f.	41°42'09" N	74°24'33" W	PEM2/SS1	
Stream E,F	ACOE	2,212 s.f.	41°42'14" N	74°24'31" W		R3RB2
Wetland G	ACOE	6,008 s.f.	41°42'15" N	74°24'29" W	PEM2	
Wetland K/AAA	ACOE	1,775 s.f.	41°42'07" N	74°24'16" W	PEM2/FO1	R2UB1/2
Wetland AA/M/N/O	ACOE	70,106 s.f.	41°41'46" N	74°24'14" W	PEM2/FO1	R2UB1/2
Wetland P	ACOE	16,938 s.f.	41°41'55" N	74°24'17" W	PEM5	
Stream AA/BB	ACOE	38 s.f.	41°42'14" N	74°24'34" W		R3RB2
Wetland AX	Non-jurisdictional	6,501 s.f.	41°41'44" N	74°23'56" W	PFO1	
Wetland BA/CC	Non-jurisdictional	30,406 s.f.	41°41'48" N	74°23'57" W	PEM2/PRB2H	
Wetland DD	Non-jurisdictional	6,281 s.f.	41°41'45" N	74°24'01" W	PSS1	

*The datum of the geographic coordinates is NAD83.

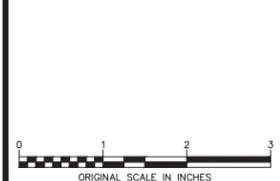
SITE TABLE	
	(in acres)
Area Within JD Limits (APE)	99.51

WETLAND AREA (ACRES)	
ACOE-JURISDICTIONAL	3.30
NON-JURISDICTIONAL	0.99

- WETLAND NOTES:**
- MOST OF THE WETLANDS SHOWN WERE FLAGGED BY JENNIFER KURILOVITCH AND BARBARA BEALL OF THE CHAZEN COMPANIES ON JUNE 11 & 18, 2012.
 - ADDITIONAL WETLANDS WERE FLAGGED BY JOHN SULLIVAN, RICHARD FUTYMA AND MATTHEW HAZZARD OF THE CHAZEN COMPANIES ON NOVEMBER 25, 2013.

STREAM TABLE									
Stream	Order	Regime*	Length (ft)	Width (ft)	Latitude	Longitude	Latitude	Longitude	Jurisdiction
					Beginning Coordinates		End Coordinates		
1A	3	PRPW	259	50-60	41°41'54" N	74°24'19" W	41°41'55" N	74°24'21" W	ACOE, NYSDEC
1B	3	PRPW	69	50-60	41°42'07" N	74°24'16" W	41°42'07" N	74°24'15" W	ACOE, NYSDEC
2	1	PRPW	930	15-40	41°41'42" N	74°24'15" W	41°41'53" N	74°24'18" W	ACOE, NYSDEC
3	1	RPW	323	3-6	41°42'14" N	74°24'34" W	41°42'14" N	74°24'31" W	ACOE

* PRPW = Perennial Relatively Permanent Waterway



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Environmental Scientists
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rev.	date	description

NEVELE REDEVELOPMENT

OVERALL WETLAND MAP

TOWN OF WAWARSING, ULSTER COUNTY NY

designed	checked
DAP	BGW
date	scale
02/21/14	1"=150'
project no.	
31225.00	
sheet no.	
W1	
1 OF 1	

APPENDIX B

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Nevele Resort Redevelopment City/County: Wawarsing, Ulster County Sampling Date: 6/11/2012
 Applicant/Owner: Nevele Investors LLC State: New York Sampling Point: A-4-W
 Investigator(s): Jennifer Kurilovitch Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local Relief (concave, convex, none): _____ Slope %: _____
 Subregion (LRR or MLRA): LRR R Latitude: 41° 42' 10" N Longitude: 74° 24' 22" W Datum: WGS 84
 Soil Map Unit Name: _____ 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 <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	If yes, optional Wetland Site ID: _____		
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Remarks: (Explain alternative procedures here or in a separate report.)					

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____		
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0</u>		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = <u>0</u> / <u>0</u>)	<u>0</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 _____	_____	_____	_____	Total % Cover of: _____ Multiply by: OBL species _____ x 1 _____ FACW species _____ x 2 _____ FAC species _____ x 3 _____ FACU species _____ x 4 _____ UPL Species _____ x 5 _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = <u>#DIV/0!</u>
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = <u>0</u> / <u>0</u>)	<u>0</u> = Total Cover			

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1 <i>Calamagrostis canadensis</i>	70	yes	OBL	
2 <i>Sisyrinchium angustifolium</i>	15	no	FAC	
3 <i>Lysimachia nummularia</i>	15	no	FACW	
4 <i>Carex vulpinoidea</i>	10	no	OBL	
5 <i>Glyceria striata</i>	10	no	OBL	
6 <i>Geranium maculatum</i>	10	no	FACU	
7 <i>Gypsophila muralis</i> (?)	5	no	NL	
(50%/20% = 68 / 27)	135	= Total Cover		
Woody Vine Stratum (Plot size: _____)				Definitions of Vegetation Strata: Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines: All woody vines greater than 3.28 ft in height.
1 _____				
2 _____				
3 _____				
4 _____				
5 _____				
6 _____				
7 _____				
(50%/20% = 0 / 0)	0	= Total Cover		
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/1	85	10YR 3/6	15			silt loam	
4-12	10YR 3/1	85	10YR 8/8	15			silt loam	

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)
	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Nevele Resort Redevelopment City/County: Wawarsing, Ulster County Sampling Date: 6/11/2012
 Applicant/Owner: Nevele Investors LLC State: New York Sampling Point: A-4-U
 Investigator(s): Jennifer Kurilovitch Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local Relief (concave, convex, none): _____ Slope %: _____
 Subregion (LRR or MLRA): LRR R Latitude: 41° 42' 10" N Longitude: 74° 24' 22" W Datum: WGS 84
 Soil Map Unit Name: _____ 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 <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____		
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Remarks: (Explain alternative procedures here or in a separate report.)		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 <u>Salix X pendulina</u>	<u>15%</u>	<u>yes</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2 _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	Prevalence Index worksheet:
7 _____	_____	_____	_____	
(50%/20% = <u>0.1</u> / <u>0</u>)	<u>0.15</u> = Total Cover			Total % Cover of: _____ Multiply by:
Sapling/Shrub Stratum (Plot size: <u>15'</u> radius)				OBL species _____ x 1 _____
1 _____	_____	_____	_____	FACW species _____ x 2 _____
2 _____	_____	_____	_____	FAC species _____ x 3 _____
3 _____	_____	_____	_____	FACU species _____ x 4 _____
4 _____	_____	_____	_____	UPL Species _____ x 5 _____
5 _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
6 _____	_____	_____	_____	Prevalence Index = B/A = <u>#DIV/0!</u>
7 _____	_____	_____	_____	
(50%/20% = <u>0</u> / <u>0</u>)	<u>0</u> = Total Cover			

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1 <i>Poa trivialis</i>	95	yes	FACW	<input checked="" type="checkbox"/> Rapid Test for Hydrophytic Vegetation
2 <i>Tussilago farfara</i>	20	no	FACU	<input type="checkbox"/> Dominance test is >50%
3 <i>Rumex crispus</i>	10	no	FAC	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
4 <i>Geranium maculatum</i>	5	no	FACU	<input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet)
5 <i>Ranunculus sp.</i>	5	no	unknown	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
6 _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7 _____	_____	_____	_____	
(50%/20% = 68 / 27)	135	= Total Cover		Definitions of Vegetation Strata:
Woody Vine Stratum (Plot size: _____)				Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
1 _____	_____	_____	_____	Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.
2 _____	_____	_____	_____	Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
3 _____	_____	_____	_____	Woody Vines: All woody vines greater than 3.28 ft in height.
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 0 / 0)	0	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Remarks: (Include photo numbers here or on a separate sheet.)
Photo 2.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/3	100						root zone
2-14	10YR 4/3	100					silt loam	
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	
<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Nevele Resort Redevelopment City/County: Wawarsing, Ulster County Sampling Date: 6/11/2012
 Applicant/Owner: Nevele Investors LLC State: New York Sampling Point: B-6-W
 Investigator(s): Jennifer Kurilovitch Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local Relief (concave, convex, none): _____ Slope %: _____
 Subregion (LRR or MLRA): LRR R Latitude: 41° 42' 09" N Longitude: 74° 24' 26" W Datum: WGS 84
 Soil Map Unit Name: _____ 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 <input type="checkbox"/>	No <input type="checkbox"/>	unknown	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>				
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		If yes, optional Wetland Site ID:	_____	
Remarks: (Explain alternative procedures here or in a separate report.) The area has mowed grass with hydric soils and significant hydrology. The vegetation was discounted because of its maintenance as turf.						

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
<input type="checkbox"/> FAC-Neutral Test (D5)			
Field Observations:		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____		
Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____		
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____ (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____			
Remarks: _____			

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: $\frac{\#DIV/0!}{\text{Total}} \times 100$ (A/B)
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 0 / 0)	0 = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 _____	_____	_____	_____	Total % Cover of: OBL species _____ x 1 _____ FACW species _____ x 2 _____ FAC species _____ x 3 _____ FACU species _____ x 4 _____ UPL Species _____ x 5 _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = $\frac{\#DIV/0!}{\text{Total}}$
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 0 / 0)	0 = Total Cover			

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

	Absolute % Cover	Dominant Species?	Indicator Status	
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1 unidentified grass (mowed)	100		unknown	
2				
3				
4				
5				
6				
7				
(50%/20% = 50 / 20)	100	= Total Cover		Definitions of Vegetation Strata: Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines: All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input type="checkbox"/>
Woody Vine Stratum (Plot size: _____)				
1				
2				
3				
4				
5				
6				
7				
(50%/20% = 0 / 0)	0	= Total Cover		

Remarks: (Include photo numbers here or on a separate sheet.)
Photo 3.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	100					silt loam	many roots
4-8	10YR 4/1	98	10YR 5/6	2			sandy loam	
8-10	10YR 4/1	90	10YR 4/1	2			sandy loam	
			10YR 5/6					
10-12	2.5Y 5/2		2.5Y 6/6				sandy loam	

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

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>
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Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Nevele Resort Redevelopment City/County: Wawarsing, Ulster County Sampling Date: 6/11/2012
 Applicant/Owner: Nevele Investors LLC State: New York Sampling Point: B-6-U
 Investigator(s): Jennifer Kurilovitch Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local Relief (concave, convex, none): _____ Slope %: _____
 Subregion (LRR or MLRA): LRR R Latitude: 41° 42' 09" N Longitude: 74° 24' 26" W Datum: WGS 84
 Soil Map Unit Name: _____ 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 <input type="checkbox"/>	No <input type="checkbox"/>	unknown	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>				
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		If yes, optional Wetland Site ID:	_____	
Remarks: (Explain alternative procedures here or in a separate report.)						

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2 _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>#DIV/0!</u> (A/B)
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	Prevalence Index worksheet:
7 _____	_____	_____	_____	
(50%/20% = 0 / 0)	0 = Total Cover			Total % Cover of: _____ Multiply by:
Sapling/Shrub Stratum (Plot size: <u>15'</u> radius)				OBL species _____ x 1 _____
1 _____	_____	_____	_____	FACW species _____ x 2 _____
2 _____	_____	_____	_____	FAC species _____ x 3 _____
3 _____	_____	_____	_____	FACU species _____ x 4 _____
4 _____	_____	_____	_____	UPL Species _____ x 5 _____
5 _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
6 _____	_____	_____	_____	Prevalence Index = B/A = <u>#DIV/0!</u>
7 _____	_____	_____	_____	
(50%/20% = 0 / 0)	0 = Total Cover			

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

	Absolute % Cover	Dominant Species?	Indicator Status	
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1 unidentified grass (mowed)	100		unknown	
2				
3				
4				
5				
6				
7				
(50%/20% = 50 / 20)	100	= Total Cover		Definitions of Vegetation Strata: Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines: All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input type="checkbox"/>
Woody Vine Stratum (Plot size: _____)				
1				
2				
3				
4				
5				
6				
7				
(50%/20% = 0 / 0)	0	= Total Cover		

Remarks: (Include photo numbers here or on a separate sheet.)
Photo 4.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 4/3	100					loam	with roots
3-6	10YR 4/3	100					loam	refusal at 6 inches

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Nevele Resort Redevelopment City/County: Wawarsing, Ulster County Sampling Date: 6/11/2012
 Applicant/Owner: Nevele Investors LLC State: New York Sampling Point: C-34-W
 Investigator(s): Jennifer Kurilovitch Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local Relief (concave, convex, none): _____ Slope %: _____
 Subregion (LRR or MLRA): LRR R Latitude: 41° 42' 08" N Longitude: 74° 24' 32" W Datum: WGS 84
 Soil Map Unit Name: _____ 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 <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	If yes, optional Wetland Site ID: _____		
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Remarks: (Explain alternative procedures here or in a separate report.)					

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = <u>0</u> / <u>0</u>)	<u>0</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 _____	_____	_____	_____	Total % Cover of: _____ Multiply by: OBL species _____ x 1 _____ FACW species _____ x 2 _____ FAC species _____ x 3 _____ FACU species _____ x 4 _____ UPL Species _____ x 5 _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = <u>#DIV/0!</u>
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = <u>0</u> / <u>0</u>)	<u>0</u> = Total Cover			

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1 <i>Carex vulpinoidea</i>	30	yes	OBL	
2 <i>Solidago gigantea</i>	25	yes	FACW	
3 <i>Juncus tenuis</i>	20	yes	FAC	
4 <i>Lythrum salicaria</i>	5	no	OBL	
5 <i>Galium</i> sp.	5	no	unknown	
6 <i>Sisyrinchium angustifolium</i>	5	no	FAC	
7				
(50%/20% = 45 / 18)	90	= Total Cover		
Woody Vine Stratum (Plot size: _____)				Definitions of Vegetation Strata: Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines: All woody vines greater than 3.28 ft in height.
1				
2				
3				
4				
5				
6				
7				
(50%/20% = 0 / 0)	0	= Total Cover		
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (Include photo numbers here or on a separate sheet.) Photo 5.				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/2	95	10YR 3/6	5			loam	roots
3-7	10YR 3/2	80	10YR 5/8	20			loam	

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)
	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Nevele Resort Redevelopment City/County: Wawarsing, Ulster County Sampling Date: 6/11/2012
 Applicant/Owner: Nevele Investors LLC State: New York Sampling Point: C-34-U
 Investigator(s): Jennifer Kurilovitch Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local Relief (concave, convex, none): _____ Slope %: _____
 Subregion (LRR or MLRA): LRR R Latitude: 41° 42' 08" N Longitude: 74° 24' 32" W Datum: WGS 84
 Soil Map Unit Name: _____ 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 <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____		
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Remarks: (Explain alternative procedures here or in a separate report.)		

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width: 50%; border: none;"><input type="checkbox"/> Water Stained Leaves (B9)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> High Water Table (A2)</td> <td style="border: none;"><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Saturation (A3)</td> <td style="border: none;"><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Water Marks (B1)</td> <td style="border: none;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sediment Deposits (B2)</td> <td style="border: none;"><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Drift Deposits (B3)</td> <td style="border: none;"><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td style="border: none;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Iron Deposits (B5)</td> <td style="border: none;"><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td style="border: none;"><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of 2) <table style="width: 100%; border: none;"> <tr><td style="border: none;"><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Saturation Visible on Aerial (C9)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)																															
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																															
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																															
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																															
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																															
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)																															
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)																															
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)																															
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																															
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																																
<input type="checkbox"/> Surface Soil Cracks (B6)																																
<input type="checkbox"/> Drainage Patterns (B10)																																
<input type="checkbox"/> Moss Trim Lines (B16)																																
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<input type="checkbox"/> Stunted or Stressed Plants (D1)																																
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<input type="checkbox"/> Shallow Aquitard (D3)																																
<input type="checkbox"/> Microtopographic Relief (D4)																																
<input type="checkbox"/> FAC-Neutral Test (D5)																																
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																
Remarks:																																

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = <u>0</u> / <u>0</u>)	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 _____	_____	_____	_____	Total % Cover of: _____ Multiply by: OBL species _____ x 1 _____ FACW species _____ x 2 _____ FAC species _____ x 3 _____ FACU species _____ x 4 _____ UPL Species _____ x 5 _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = <u>#DIV/0!</u>
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = <u>0</u> / <u>0</u>)	<u>0</u>	= Total Cover		

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Nevele Redevelopment City/County: Wawarsing, Ulster County Sampling Date: 11/25/2013
 Applicant/Owner: Nevele Investors LLC State: New York Sampling Point: BA-8-W
 Investigator(s): Richard Futyma Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): basin Local Relief (concave, convex, none): concave Slope %: 0-10
 Subregion (LRR or MLRA): LRR R Latitude: 41° 41' 49" Longitude: 74° 23' 58" Datum: WGS 84
 Soil Map Unit Name: Hudson silt loam, 3-8% slopes 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 <u>Quercus bicolor</u>	<u>10</u>	<u>yes</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2 _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	Prevalence Index worksheet:
7 _____	_____	_____	_____	
(50%/20% = <u>5</u> / <u>2</u>)	<u>10</u> = Total Cover			Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>15'</u> radius)				OBL species _____ x 1 _____
1 NONE	_____	_____	_____	FACW species _____ x 2 _____
2 _____	_____	_____	_____	FAC species _____ x 3 _____
3 _____	_____	_____	_____	FACU species _____ x 4 _____
4 _____	_____	_____	_____	UPL Species _____ x 5 _____
5 _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
6 _____	_____	_____	_____	Prevalence Index = B/A = <u>#DIV/0!</u>
7 _____	_____	_____	_____	
(50%/20% = <u>0</u> / <u>0</u>)	<u>0</u> = Total Cover			

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1 <i>Agrostis stolonifera</i>	80	Yes	FACW	
2 <i>Impatiens</i> sp.	10	No	FACW	
3 <i>Persicaria sagittata</i>	10	No	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4 <i>Onoclea sensibilis</i>	5	No	FACW	
5 <i>Urtica dioica</i>	5	No	FAC	Definitions of Vegetation Strata: Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines: All woody vines greater than 3.28 ft in height.
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
(50%/20% = 55 / 22)	110 = Total Cover			
Woody Vine Stratum (Plot size: _____)				
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 0 / 0)	0 = Total Cover			

Remarks: (Include photo numbers here or on a separate sheet.)
Photo 17

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 3/3	100					silt loam	with some organic matter and roots
5-14	10YR 4/2	80	7.5YR 4/4	10	C	M	silt loam	
"	"	"	7.5YR 3/4	10	C	M	silt loam	
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: 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 Soils³:

- 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 (TX6) (MLRA 144A, 145, 149B)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators 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: Nevele Redevelopment City/County: Wawarsing, Uister County Sampling Date: 11/25/2013
 Applicant/Owner: Nevele Investors LLC State: New York Sampling Point: BA-8-U
 Investigator(s): Richard Futyma Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local Relief (concave, convex, none): _____ Slope %: _____
 Subregion (LRR or MLRA): LRR R Latitude: 41° 41' 49" Longitude: 74° 23' 58" Datum: WGS 84
 Soil Map Unit Name: Hoosic gravelly loam, rolling 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 <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____		
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
Remarks: (Explain alternative procedures here or in a separate report.)					

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 <u>Quercus prinus</u>	50	Yes	UPL	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2 <u>Quercus velutina</u>	30	Yes	NL	
3 <u>Quercus alba</u>	20	No	FACU	
4 _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
5 _____				
6 _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
7 _____				
(50%/20% = 50 / 20)	100 = Total Cover			
Sampling/Shrub Stratum (Plot size: <u>15'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 <u>Quercus prinus</u>	20	Yes	UPL	Total % Cover of: OBL species _____ x 1 _____ FACW species _____ x 2 _____ FAC species _____ x 3 _____ FACU species _____ x 4 _____ UPL Species _____ x 5 _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = <u>#DIV/0!</u>
2 <u>Hamamelis virginiana</u>	15	Yes	FACU	
3 <u>Fraxinus sp.</u>	2	No	unknown	
4 <u>Tsuga canadensis</u>	2	No	FACU	
5 _____				
6 _____				
7 _____				
(50%/20% = 20 / 7.8)	39 = Total Cover			

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Nevele Redevelopment City/County: Wawarsing, Uister County Sampling Date: 11/25/2013
 Applicant/Owner: Nevele Investors LLC State: New York Sampling Point: DD-1-W
 Investigator(s): Richard Futyma Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): shallow basin Local Relief (concave, convex, none): flat Slope %: 0-1
 Subregion (LRR or MLRA): LRR R Latitude: 41° 41' 45" Longitude: 74° 24' 02" Datum: WGS 84
 Soil Map Unit Name: Hudson silt loam, 3-8% slopes 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 <input type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	If yes, optional Wetland Site ID: _____		
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input type="checkbox"/>					
Remarks: (Explain alternative procedures here or in a separate report.)					

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____ (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 <i>Acer saccharinum</i>	40	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2 <i>Fraxinus pennsylvanica</i>	60	Yes	FACW	
3 _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 50 / 20)	100 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 <i>Lindera benzoin</i>	50	Yes	FACW	Total % Cover of: _____ Multiply by:
2 <i>Malus pumila</i>	10	No	NL	
3 _____	_____	_____	_____	OBL species _____ x 1 _____
4 _____	_____	_____	_____	FACW species _____ x 2 _____
5 _____	_____	_____	_____	FAC species _____ x 3 _____
6 _____	_____	_____	_____	FACU species _____ x 4 _____
7 _____	_____	_____	_____	UPL Species _____ x 5 _____
(50%/20% = 30 / 12)	60 = Total Cover			Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = #DIV/0!

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

	Absolute % Cover	Dominant Species?	Indicator Status	
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators:
1 Unidentified grass	80	Yes	unknown	<input type="checkbox"/> Rapid Test for Hydrophytic Vegetation
2 <i>Epilobium coloratum</i>	30	Yes	OBL	<input checked="" type="checkbox"/> Dominance test is >50%
3 <i>Carex bromoides</i>	10	No	FACW	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
4 _____	_____	_____	_____	<input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet)
5 _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
6 _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7 _____	_____	_____	_____	
(50%/20% = 60 / 24)	120	= Total Cover		Definitions of Vegetation Strata:
Woody Vine Stratum (Plot size: _____)				Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
1 _____	_____	_____	_____	Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.
2 _____	_____	_____	_____	Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
3 _____	_____	_____	_____	Woody Vines: All woody vines greater than 3.28 ft in height.
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 0 / 0)	0	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				
Photo 19.				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13	10YR 3/2	95	10YR 4/3	5	C	M	clayey silt loam	

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

<p>Hydric Soil Indicators:</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)</p>	<p><input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input checked="" type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)</p> <p><input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p>Restrictive Layer (if observed):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
--	--

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Nevele Redevelopment City/County: Wawarsing, Uister County Sampling Date: 11/25/2013
 Applicant/Owner: Nevele Investors LLC State: New York Sampling Point: DD-1-U
 Investigator(s): Richard Futyma Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local Relief (concave, convex, none): _____ Slope %: _____
 Subregion (LRR or MLRA): LRR R Latitude: 41° 41' 45" Longitude: 74° 24' 02" Datum: WGS 84
 Soil Map Unit Name: _____ 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 <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____		
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
Remarks: (Explain alternative procedures here or in a separate report.)					

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 <u>Quercus velutina</u>	30	Yes	NL	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2 <u>Fraxinus sp.</u>	30	Yes	unknown	
3 <u>Quercus alba</u>	20	Yes	FACU	Total Number of Dominant Species Across All Strata: <u>8</u> (B)
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>13%</u> (A/B)
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 40 / 16)	80 = Total Cover			
Sampling/Shrub Stratum (Plot size: <u>15' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 <u>Ulmus sp.</u>	15	Yes	unknown	Total % Cover of: _____ Multiply by:
2 <u>Acer platanoides</u>	10	Yes	UPL	
3 <u>Acer rubrum</u>	10	Yes	FAC	FACW species _____ x 2 _____
4 _____	_____	_____	_____	FAC species _____ x 3 _____
5 _____	_____	_____	_____	FACU species _____ x 4 _____
6 _____	_____	_____	_____	UPL Species _____ x 5 _____
7 _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
(50%/20% = 18 / 7)	35 = Total Cover			Prevalence Index = B/A = <u>#DIV/0!</u>

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1 <i>Solidago canadensis</i>	80	Yes	FACU	
2 <i>Tussilago farfara</i>	20	Yes	FACU	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 50 / 20)	100 = Total Cover			Definitions of Vegetation Strata: Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines: All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Woody Vine Stratum (Plot size: _____)				
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 0 / 0)	0 = Total Cover			

Remarks: (Include photo numbers here or on a separate sheet.)
Photo 20.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 3/3	100					gravelly sand	
5-15	7.5YR 3/3	100					gravelly sand	
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)
	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Nevele Redevelopment City/County: Wawarsing, Ulster County Sampling Date: 11/25/2013
 Applicant/Owner: Nevele Investors LLC State: New York Sampling Point: AX-4-W
 Investigator(s): John Sullivan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): basin Local Relief (concave, convex, none): concave Slope %: _____
 Subregion (LRR or MLRA): LRR R Latitude: 41° 42' 14" N Longitude: 74° 24' 34" W Datum: WGS 84
 Soil Map Unit Name: _____ 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 <input type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) The vegetation was sparse and mostly unidentifiable. The hydrology indicators and soils were strong indicators of the presence of wetland. See notes under vegetation.	

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2)
Primary Indicators (minimum of one is required; check all that apply)	
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 <u>none</u>				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>#DIV/0!</u> (A/B)
2 _____				
3 _____				
4 _____				
5 _____				
6 _____				
7 _____				
(50%/20% = <u>0 / 0</u>)	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 <u>none</u>				Total % Cover of: _____ Multiply by: OBL species _____ x 1 _____ FACW species _____ x 2 _____ FAC species _____ x 3 _____ FACU species _____ x 4 _____ UPL Species _____ x 5 _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = <u>#DIV/0!</u>
2 _____				
3 _____				
4 _____				
5 _____				
6 _____				
7 _____				
(50%/20% = <u>0 / 0</u>)	<u>0</u>	= Total Cover		

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

Herb Stratum (Plot size: 5' radius)		Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1	unknown grass	100	yes	unknown	
2	<i>Alliaria petiolata</i>	7	no	FACU	
3	<i>Onoclea sensibilis</i>	1	no	FACW	
4					
5					
6					
7					
(50%/20% = 54 / 22)		108	= Total Cover		
Woody Vine Stratum (Plot size: _____)					Definitions of Vegetation Strata: Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines: All woody vines greater than 3.28 ft in height.
1					
2					
3					
4					
5					
6					
7					
(50%/20% = 0 / 0)		0	= Total Cover		
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input type="checkbox"/>					

Remarks: (Include photo numbers here or on a separate sheet.) Photos 21 & 22.
 There was a small amount of identifiable vegetation, and the condition of the dominant grass made it impossible to determine its indicator status.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 2/2	100					Fine silty loam	
4-9	7.5YR 5/1	70	7.5YR 4/4	5-10	C	M	Fine silty loam	with 20-25% fine gravel
9								Refusal on rock.

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)		<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			
<input type="checkbox"/> Sandy Redox (S5)			
<input type="checkbox"/> Stripped Matrix (S6)			
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)			

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Nevele Redevelopment City/County: Wawarsing, Uister County Sampling Date: 11/25/2013
 Applicant/Owner: Nevele Investors LLC State: New York Sampling Point: AX-4-U
 Investigator(s): Richard Futyma Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local Relief (concave, convex, none): _____ Slope %: _____
 Subregion (LRR or MLRA): LRR R Latitude: 41° 42' 14" N Longitude: 74° 24' 34" W Datum: WGS 84
 Soil Map Unit Name: _____ 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 <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____		
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Remarks: (Explain alternative procedures here or in a separate report.)		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 <u>Quercus rubra</u>		Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2 <u>Quercus alba</u>		Yes	FACU	
3 <u>Fagus grandifolia</u>		Yes	FACU	
4 _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
5 _____				
6 _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
7 _____				
(50%/20% = <u>0</u> / <u>0</u>)	<u>0</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15'</u> radius)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 _____				Total % Cover of: _____ Multiply by:
2 _____				
3 _____				
4 _____				
5 _____				
6 _____				
7 _____				
(50%/20% = <u>0</u> / <u>0</u>)	<u>0</u> = Total Cover			OBL species _____ x 1 _____
				FACW species _____ x 2 _____
				FAC species _____ x 3 _____
				FACU species _____ x 4 _____
				UPL Species _____ x 5 _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = <u>#DIV/0!</u>

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

	Absolute % Cover	Dominant Species?	Indicator Status	
Herb Stratum (Plot size: <u>5'</u> radius)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 0 / 0)	0	= Total Cover		Definitions of Vegetation Strata: Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines: All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Woody Vine Stratum (Plot size: _____)				
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 0 / 0)	0	= Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2.5	10YR 2/2	100					fine sandy loam	
2.5-7	10YR 5/4	100					fine sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

APPENDIX C

Photographs of the Project Site



Photo #1 - The culvert extending under Nevele Drive, at Flag A28.



Photo #2 – A representative view of Wetland A.



Photo #3 - A representative view of Wetland B, facing northeast.



Photo #4 – A view of uplands surrounding Wetland B.



Photo #5 – Wetland vegetation in Wetland C located at Flag C17.



Photo #6 – A view of uplands located north of Wetland C.



Photo #7 – A view of wetland vegetation in Wetland D at Flag D11.



Photo #8 – A photo of upland vegetation to the west of Wetland D.



Photo #9 - A view of Stream 3, in the section bounded by lines E and F, at Flag F1, just downslope from Route 209.

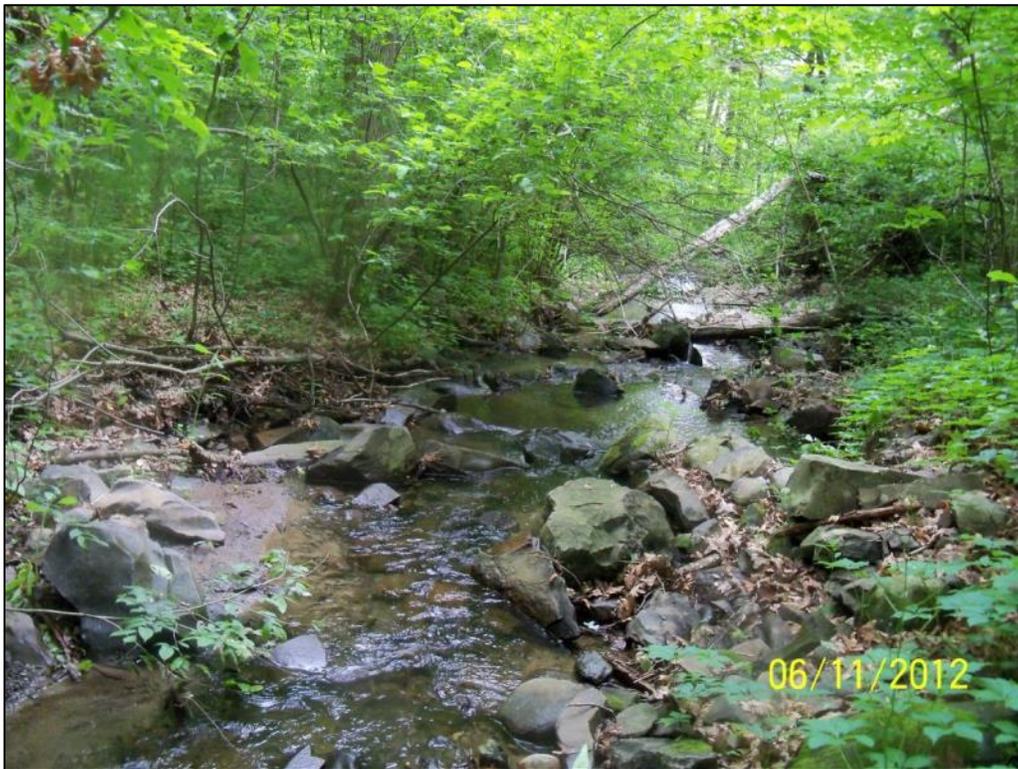


Photo #10- A view of Stream 3, in the section bounded by lines E and F, facing north.



Photo #11 – A view of wetland vegetation in Wetland G facing east.



Photo #12 – A view of upland vegetation west of Wetland G.



Photo #13 – A view of Stream 2 at Flag N28, facing southwest.



Photo #14 – A view of uplands located east of wetland line N/O.



Photo #15 – A view of Wetland P, facing northwest.



Photo #16 – A view of uplands located northwest of Wetland P.



Photo #17 – Wetland near flag BA-8 (in right foreground). Dominant plants include *Agrostis stolonifera*, *Impatiens* sp., *Persicaria sagittata*, *Onoclea sensibilis*, *Urtica dioica* and *Quercus bicolor*. (Photographed Nov. 25, 2013.)



Photo #18 – The upland next to wetland BA is a chestnut oak forest with *Quercus prinus*, *Q. velutina*, *Q. alba*, *Hamamelis virginiana*, and *Tsuga canadensis*. (Photographed Nov. 25, 2013.)



Photo #19 – The wetland near flag DD-1 has *Acer saccharinum*, *Fraxinus pennsylvanica*, *Lindera benzoin*, *Epilobium coloratum*, and *Carex bromoides*. (Photographed Nov. 25, 2013.)



Photo #20 – The upland next to wetland DD has *Quercus velutina*, *Q. alba*, *Fraxinus* sp., *Ulmus* sp., *Acer rubrum*, and *A. platanoides*. (Photographed Nov. 25, 2013.)



Photo #21 – Wetland AX, viewed from its southern side. (Photographed Nov. 25, 2013.)



Photo #22 – Wetland AX, viewed from its northern side. (Photographed Nov. 25, 2013.)