Qualitative Biological Assessment

for

Winston Farm

Towns of Saugerties
Ulster County, New York

Prepared For:

Saugerties Farm, LLC
P.O. Box 683
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Prepared By:

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1.0 INTRODUCTION

At the request of the Saugerties Farm, LLC (the "Applicant" and "Owner"), North Country Ecological Services, Inc. (NCES) completed a Qualitative Biological Assessment on the lands known as "Winston Farm". The subject property is comprised of eleven (11) separate parcels totaling 840± acres, as follows: Parcel 1: 17.2-3-10, Parcel 2: 17.2-3-15, Parcel 3: 17.2-4-32, Parcel 4: 17.2-5-38, Parcel 5: 17.2-5-39-120, Parcel 6: 17.2-5-40, Parcel 7: 17.2-5-41, Parcel 8: 17.15-3-4, Parcel 9: 17.15-3-8, Parcel 10: 17.16-1-1-110, and Parcel 11: 17.16-1-36

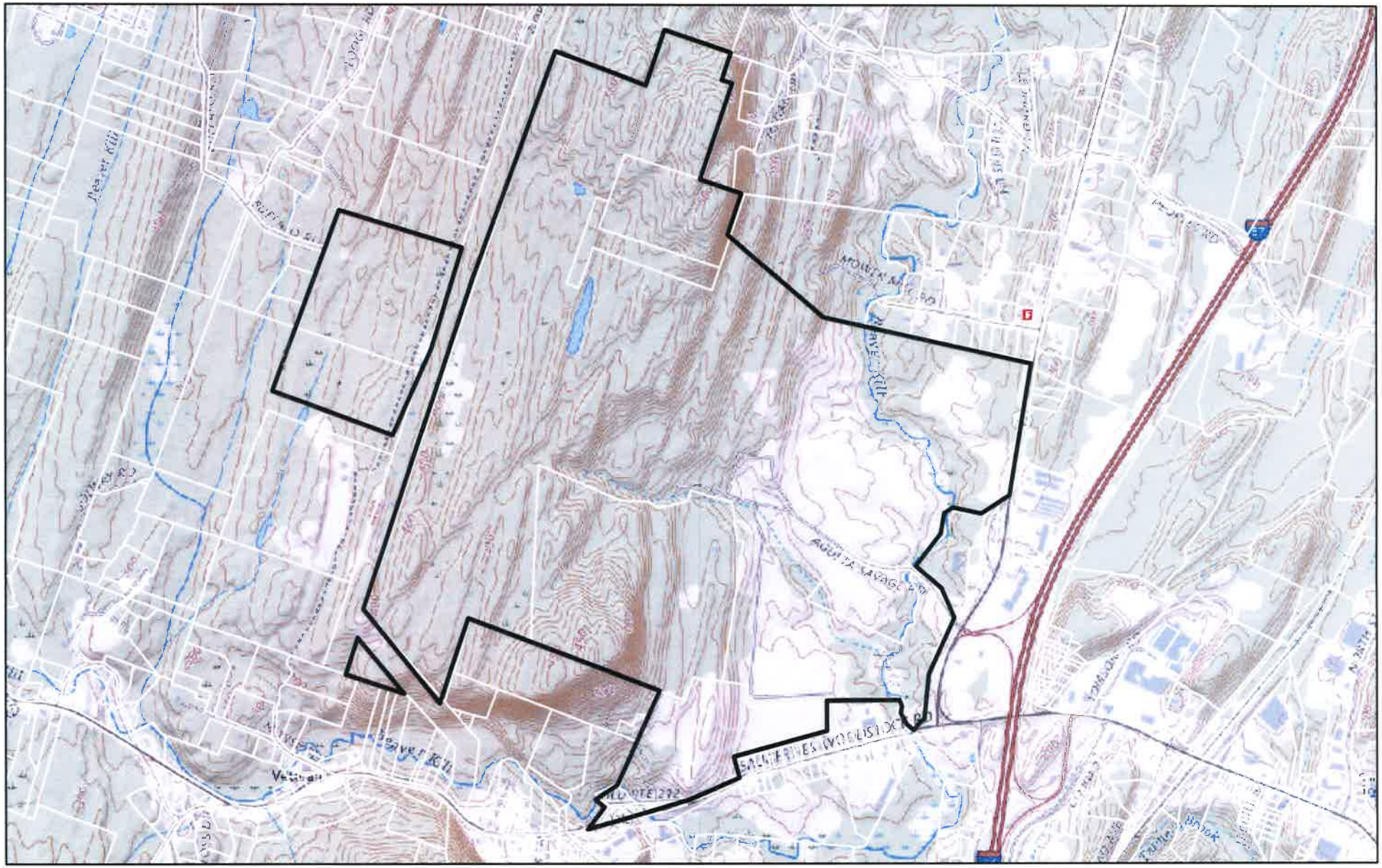
The subject property is located to the west of New York State Route 32 (NY-32) and to the north of Saugerties-Woodstock Road, in the Town of Saugerties, Ulster County, New York (the "Site") (Figure 1). The centralized coordinates of the Site are 42° 05' 31.78" Latitude and 73° 59' 11.75" Longitude (42.091 N, -73.986 W). Elevations within the Site range from 400± feet above Mean Sea Level (MSL), found atop the Central Hudson Gas & Electric utility corridor that is located along the western boundaries of the Site, to 150± feet above MSL (the Beaver Kill), resulting in an elevation difference of 250± feet.

The Site is comprised of agricultural fields, fallow fields, undeveloped forested land, Palustrine wetland communities, residential houses, and old vacant structures. One of the residential houses is currently occupied and is accessed by Augusta Savage Road; a paved road that bisects the eastern-half of the Site. Augusta Savage Road is the main access road from NY-32 into the Site.

The western portion of the Site is somewhat defined by an overhead utility line corridor. A 45+ acre section (Tax ID #'s: 17.2-3-10 & 15) is located to the west of the utility line. The Site is recognized as private land and public access to the Site is restricted.

The agricultural fields are located within the eastern portions of the Site, to the west of the Beaver Kill. During the site visits, NCES noted that these fields remained in a fallow state with no farming activity having occurred.

Figure 1 - Site Location Map



3/25/2024

Ulster County Tax Parcels

1:24,000

0 0.15 0.3 0.6 mi

0 0.23 0.45 0.9 km

USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography

North Country Ecological Services, Inc.

Portions of the forested uplands found on-site have been logged with the last cutting having occurred approximately 1-year ago by the landowner. Based on the presence of logging roads and cut stumps, it is apparent that the western portions of the Site have been subjected to logging activities within the last ten to thirty years.

Land use surrounding the Site includes single-family residential houses, commercial and industrial development, and undeveloped forested land. New York State Thruway (I-87) is located to the east of the Site. Residential development is found to the south of the Site along Saugerties-Woodstock Road, and undeveloped forested land borders the Site to the north and west.

2.0 Qualitative Biological Assessment Guidelines

The Qualitative Biological Assessment, inclusive of an ecological habitat assessment and indigenous flora/fauna inventory, encompassed the entire Site. As part of the ecological habitat assessment, a delineation of wetlands and other aquatic resources was completed by Mr. Michael Nowicki. A separate wetland delineation report, documenting the findings of the delineation, was completed by Mr. Nowicki, and has been compiled for submission to the U.S. Army Corps of Engineers (USACE) and New York State Department of Environmental Conservation (NYSDEC). A wetland delineation map was created by the engineering firm Passero Associates (the "Engineers"). NCES used this wetland map during the field visits to help distinguish the ecological communities and habitats on-site. The wetland delineation map is contained in Appendix A.

The Qualitative Biological Assessment is required as part of the response package addressing the Draft Environmental Impact Statement (DEIS) Scoping Document that was issued by Town of Saugerties Town Board (the "Town"). The Town requested that the Site be evaluated to assess the overall existing ecological condition of the Site. The outline of the Qualitative Biological Assessment included:

- In-house literature search and direct consultation with the U.S. Fish and Wildlife Service (USFWS) and the NYSDEC Natural Heritage Office (NHO);
- Survey of the aquatic resources identified within the boundaries of the Site;
- Identification and mapping of existing ecological communities;
- Wildlife survey results;
- Seasonal (Spring, Summer, Fall, and Winter) bird surveys;
- Identification of areas that are significant to waterfowl, breeding amphibians, and aquatic furbearers;
- Identification and compilation of a list of observed flora and fauna;
- Identification and compilation of a list of fauna associated ecological community types present on the Site; and
- Obtaining photographs of the Site.

The information provided in this report will be utilized by the Town to identify potential impacts to the general ecology, and for any proposed future development of the Site. NCES completed field surveys over four consecutive seasons (spring, summer, fall, and winter) spanning from November of 2022 through October of 2023. The identified ecological communities, observed flora and fauna, and biodiversity of the Site are outlined within this report. During the field surveys, NCES also determined the potential presence of endangered, threatened, and/or rare (ETR) species. To complete the review, NCES staff undertook the following actions:

1) An in-house review of literature sources and direct consultations with regulatory agencies regarding records of known occurrences of New York State (NYS) and/or federally-listed endangered, threatened, or rare species of flora and fauna, as well as any significant ecological communities or habitat types found on, or adjacent to the Site.

2) On-site field evaluations to document existing ecological communities (habitats), and to compile an inventory of the existing flora and fauna that inhabit or may utilize the property during some portion of the year.

3) A review of all wetlands and streams delineated within the boundaries of the Site.

The resumes of the NCES staff who completed the literature and field reviews are contained in Appendix B.

To initiate the in-house review, NCES consulted directly with the NYSDEC Natural Heritage Office (NHO) and the USFWS to obtain information relative to any records of occurrence of endangered, threatened, or rare species of flora and fauna. Information relating to the presence of significant ecological community types or other sensitive habitats known to occur in the geographic area was requested.

NCES reviewed the following technical documents to establish a general sense of the existing topography, vegetative structure, overall condition, the types of potential ecological communities present, and to identify known species of flora and fauna that may occur at the property:

- USDA Soil Survey of Ulster County, New York
- Google Earth Aerial Imagery
- NYSDEC Environmental Resource Mapper (ERM)
- National Wetland Inventory (NWI) Maps
- USGS Topographical Map (Saugerties 7.5' Quadrangle)
- NYSDEC Breeding Bird Atlas (Atlas Block Saugerties-NW)
- NYSDEC Herpetological Atlas (NYSDEC 1990)
- NYSDEC Rare Plant Lists (Young, 2008, 2010 and 2017)
- NYSDEC Rare Animal Lists (NYNHP, 2007, 2010 and 2019)

The USDA Soil Survey, Google Earth aerial imagery, NWI Maps, NYSDEC ERM, and USGS Topographical Maps, were utilized to identify baseline data to define existing topography, vegetation, soil composition and structure, and potential regulated wetland locations and configurations, prior to any site visits. The information from these resources was also used to locate potential areas of significant aquatic habitats.

To identify the potential species of flora and fauna that may inhabit the property, NCES consulted the New York State Breeding Bird Atlas, the Herpetological Atlas, the NYSDEC Rare Plant List and the NYSDEC Rare Animal List for known information relative to flora and fauna that can be found on the Site, or within the immediate geographic region. In addition to the literature review, on-site field surveys for endangered, threatened, and rare species and habitats conducive to their existence, was undertaken. The field surveys entailed an on-site field review of the entire Site.

NCES utilized opportunistic visual encounter, cover object search, and call survey methodologies to document fauna species. NCES visually scanned each of the ecological communities and assessed general conditions and species presence. Where logs, rocks, or other natural debris were found, NCES physically moved/lifted the debris to search for species. During the field reviews, NCES recorded the existing ecological community types present and documented the flora/fauna species identified within them.

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

3.0 Agency Consultation and Literature Search Results

The Endangered & Threatened Species Ecological Review included the following activities:

1) An in-house review of the USFWS IPaC website (dated October 11, 2022) and the NYSDEC's ERM. The NYSDEC NHO issued a formal response on January 10, 2023 for listed species and community types of concern for the Site. Correspondences from both the USFWS and NHO are contained in Appendix C.

2) An on-site field review of the existing ecological communities, habitats, and flora/fauna present within the boundaries of the Site to determine the likelihood of endangered, threatened, and/or rare species presence.

The information obtained from the USFWS and NYSDEC identifies that the following species and ecological communities have the potential to be present at, or within the immediate vicinity, of the Site:

- Indiana Bat (*Myotis sodalis*) – State and Federally listed Endangered
- Monarch Butterfly (*Danaus plexippus*) – Candidate Species
- Red-headed Woodpecker (*Melanerpes erythrocephalus*) – State Special Concern, Federally not listed
- Green Rock Cress (*Borodinia missoriensis*) – State Threatened, Federally not listed
- Northern Oak Hairstreak (*Satyrium favonius ontario*) – State and Federally not listed
- Tawny Emperor (*Asterocampa clyton*) – State and Federally not listed
- Red Maple-Black gum Swamp – High Quality Occurrence of Rare Community Type
- Vernal Pool – High Quality Occurrence of Uncommon Community Type
- Chestnut Oak Forest – High Quality Occurrence

The information provided by the USFWS did not detail the approximate locations of the above referenced species or their associated habitats. The information does however specify that the Monarch Butterfly is a "Candidate Species" only. Candidate Species are defined by the USFWS as "plants and animals for which the U.S. Fish and Wildlife Service (FWS) has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act (ESA)". However, it is also stated that currently, "Candidate Species receive no statutory protection under the ESA".

Based on the information provided by the NYSDEC Breeding Bird Atlas, the Atlas separates each County into designated blocks and each block correlates with a set of specific information relative to the bird species found within the block. The individual bird species identified in each block are then further separated into four (4) categories to record breeding evidence. These categories are: Observed (O), Possible (PO), Probable (PR), and Confirmed (CO).

The Site encompasses a portion of one (1) Atlas block; Block Saugerties_NW. According to the information provided by the Breeding Bird Atlas, there are a total of 84 different bird species that have been identified as exhibiting breeding characteristics in this Block. Of these species, 27 O, 22 PO, 18 PR, and 44 CO breeding species. The Breeding Bird Atlas information for the Saugerties_NW Block is contained in Appendix D.

The review of the Herpetological Atlas information provided by the NYSDEC Herp Atlas Project (HAP) for salamanders, toads and frogs, lizards and snakes, and turtles. The HAP determined that a total of forty-five (45) different species of herpetofauna that are known to occur within Ulster County, New York. A list of these species is contained in Appendix E.

Once the information from the Breeding Bird and Herpetological Atlases was obtained, NCES cross-referenced the information to identify species that are classified as "Species of Special Concern" that may be found on the Site, or that may be associated with habitats that are identified on-site. A Species of Special Concern (SSC) is defined by the NYSDEC as being "any native species for which a welfare concern or risk of endangerment has been documented in New York State."

Based on the review, it has been determined that two (2) species identified by the Breeding Bird Atlas and five (5) species identified by the Herpetological Atlases are also classified by the NYSDEC as SSC. These species include: red-headed woodpecker (*Melanerpes erythrocephalus*), Cooper's hawk (*Accipiter cooperii*), Jefferson-Blue spotted salamander complex (*Ambystoma jeffersonianum x laterale*), marbled salamander (*Ambystoma opacum*), spotted turtle (*Clemmys guttata*), wood turtle (*Clemmys insculpta*), eastern hognose snake (*Heterodon platirhinos*).

4.0 Field Survey Results

The following sections describe the existing conditions of the Site, relative to the existing ecological community types present, the on-site soils documented, the dominant vegetation identified, and the sources of hydrology observed.

The field surveys inclusive of the species inventories and habitat assessments were conducted on the following dates and times, as outlined in Table 1 below:

Table 1
Field Survey Dates & Conditions

Date	Time	Temperature	Weather Conditions	NCES Staff Present
11/4/2022	2:00 PM	70°F	Sunny	SPG, LK
12/9/2022	2:00 PM	43°F	Sunny	SPG, LK
1/5/2023	10:30 AM	45°F	Cloudy	LK
3/23/2023	1:00 PM	57°F	Partly cloudy	LK
3/30/2023	2:00 PM	41°F	Sunny	SPG
4/4/2023	9:30 AM	58°F	Sunny	SPG
4/8/2023	5:45 – 11:00 AM	30°F - 40°F	Sunny	LK

4/11/2023	12:30 PM	73°F	Sunny	SPG, LK
5/17/23	11:00 AM – 2:00 PM	49°F	Sunny	SPG, LK
5/23/23	9:00 AM – 1:00 PM	60°F - 70°F	Sunny	SPG, LK, RM
5/24/23	9:00 AM – 1:00 PM	60°F	Partly sunny	RM
5/26/23	6:00 AM – 12:00 PM	65°F	Partly sunny	RM
5/30/23	4:00PM – 7:00 PM	63°F	Cloudy	RM
6/6/23	9:00 AM	67°F	Sunny	SPG, LK, RM
6/12/23	5:00 AM	55°F	Cloudy	RM
6/15/23	9:00 AM	60°F - 77°F	Partly sunny	RM
7/25/23	8:00 AM – 11:15 AM	70°F	Partly sunny	LK, RM
7/26/23	8:30 PM-11:30 PM	83°F	Humid, partly cloudy (Sunset)	LK, RM
7/27/23	4:30 AM – 8:00 AM	68°F - 70°F	Sunny	LK, RM
10/13/23	7:00 AM – 11:30 AM	40°F - 50°F	Sunny	LK, RM
10/18/23	9:00 AM	52°F	Partly Sunny	RM
10/19/23	6:30 AM – 9:00 AM	45°F	Heavy fog, Sunny (Sunrise @ 6:45AM)	RM
10/19/23	8:30 AM – 1:00 PM	48°F - 60°F	Foggy, Sunny	LK
10/20/23	9:30 AM – 1:00 PM	57°F	Cloudy, Rain	LK
10/27/23	5:00 AM – 1:00 PM	44°F	Cloudy	RM
10/28/23	7:00 AM – 10:00 AM	55°F - 60°F	Foggy, Sunny (Sunrise @ 7:02AM)	RM

During the field surveys, NCES traversed the Site to document the existing conditions and identify the ecological community types present. During each of the field reviews, NCES actively searched the existing community types for flora and fauna, as well as endangered, threatened and/or rare species. NCES also specifically reviewed the property for habitats that would be deemed conducive to the presence of those species documented by the NHO and USFWS, and for other unique communities and/or rare species that were not specifically referenced by the agency consultations. During the field reviews, photographs were taken to document the existing conditions. These photographs are contained in Appendix F.

4.1 Existing Conditions

4.1a Existing Ecological Communities

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

- Chestnut oak forest (Edinger)
- Hemlock-northern hardwood forest (Edinger)
- Successional northern hardwoods (Edinger)
- Successional red cedar woodlands (Edinger)
- Successional old field (Edinger)
- Mowed lawn with trees (Edinger)
- Mowed field
- Unpaved road/path (Edinger)
- Cropland/field crops (Edinger)
- Appalachian oak-pine forest (Edinger)
- Appalachian oak-hickory forest (Edinger)
- Palustrine forested wetland (Cowardin) inclusive of: Red maple-hardwood swamp, Red maple-Black gum swamp, Hemlock-hardwood swamp, and Vernal pool (Edinger)
- Palustrine scrub-shrub wetland (Cowardin)
- Palustrine emergent wetland (Cowardin)
- Open water pond (Cowardin)
- Perennial stream (Cowardin)
- Intermittent stream (Cowardin)

The extent of the individual forest community types identified are detailed on the Winston Farm Forest Community Map that is contained in Appendix G. These ecological communities are outlined in Table 2 below:

Table 2
Existing Ecological Community Types

Ecological Community Type	Acres (+/-)	Percentage (+/-)
Chestnut oak forest	115.02	18.45
Hemlock-northern hardwood forest	156.39	19.81
Successional northern hardwoods	150.37	17.90
Succession red cedar woodland	18.18	2.16
Successional old field	8.54	1.02
Mowed lawn with trees	9.51	1.13
Mowed field	2.25	0.27
Cropland/field crops	120.18	14.31
Appalachian oak-pine forest	105.85	12.60
Palustrine forested wetland	25.15	2.99
Vernal pool	7.09	0.84
Palustrine scrub-shrub wetland	0.96	0.11
Palustrine emergent wetland	39.18	4.66
Open water pond	21.38	2.55
Total	**840± acres**	**100%**

4.2 Soils

According to the USDA Natural Resources Conservation Service Web Soil Survey 2.3 for Ulster County, New York (the "Soil Survey"), there are seventeen (17) separate soil series that occur within the boundaries of the Site. The soils are as follows: Arnot-Lordstown-Rock outcrop complex, moderately steep (ARD); Bath-Nassau complex, with 8-25 % slopes (BnC); Bath-Nassau-Rock outcrop complex, hilly (BOD); Canandaigua silt loam, till substratum (Cd); Chenango gravelly silt loam, with 3-8 % slopes (CnB); Hudson silt loam (HuB, HuC); Hudson and Schoharie soils, with 15-25 % slopes (HwD); Lordstown-Arnot-Rock outcrop complex, sloping (LOC); Madalin silty clay loam (Ma); Mardin-Nassau complex, with 3-8 % slopes (MgB); Morris-Tuller complex, gently sloping, very boulder (MTB); Nassau-Bath-Rock outcrop complex, very steep (NBF); Palms muck (Pa); Quarry (QU); Rhinebeck silt loam, with 0 to 3 % slopes (RhA); Stockbridge-Farmington-Rock outcrop complex, hilly (STD); and Wayland soils

complex, non-calcareous substratum, with 0-3 % slopes, frequently flooded (Wb). The Soil Survey also identifies a large area of open water (W) (Figure 2).

4.3 Vegetation

During the site reviews, NCES identified twenty-one (21) different ecological communities within the boundaries of the Site. These ecological communities include: Chestnut oak forest, Hemlock-northern hardwood forest, Successional red cedar woodland, Successional northern hardwoods, Successional old field, Mowed lawn with trees, Mowed field, Unpaved Road/Path, Cropland/field crops, Appalachian oak-pine forest, Appalachian oak-hickory forest, Palustrine forested wetland: Red maple-Hardwood swamp, Red maple-Black gum swamp, Hemlock-hardwood swamp, Vernal pool; Palustrine scrub-shrub wetland, Palustrine emergent wetland Open water pond; Perennial stream, and Intermittent stream.

Each of these ecological communities possess distinct species of vegetation that aids in their characteristic community type. The dominant species of vegetation identified in each ecological community are identified below:

The dominant species of vegetation observed within the Chestnut oak forest ecological community included, but are not limited to: chestnut oak (*Quercus montana*), northern red oak (*Quercus rubra*), white oak (*Quercus alba*), black oak (*Quercus velutina*), red maple (*Acer rubrum*), mountain laurel (*Kalmia latifolia*), highbush blueberry (*Vaccinium corymbosum*), partridge berry (*Mitchella repens*), wild sarsaparilla (*Aralia nudicaulis*), Pennsylvania sedge (*Carex pensylvanica*), and wintergreen (*Gaultheria procumbens*).

The dominant species of vegetation observed within the Hemlock-northern hardwood forest ecological community included, but are not limited to: eastern hemlock (*Tsuga canadensis*), white pine (*Pinus strobus*), American beech (*Fagus grandifolia*), sugar maple, yellow birch (*Betula allegheniensis*), black cherry (*Prunus serotina*), Canada mayflower (*Maianthemum canadensis*), starflower (*Trientalis borealis*), common wood-sorrel (*Oaxlis acetosella*), partridge berry, and beech-drops (*Epifagus virginiana*).

Natural Resources Conservation Service

Soil Legend

ARD - Arnot-Lordstown-Rock outcrop complex, moderately steep
BnCBath-Nassau complex, 8-25% slopes
BODBath-Nassau-Rock outcrop complex, hilly
CdCanandaigua silt loam, till substratum
CnB - Chenango gravelly silt loam, 3-8% slopes
HuB - Hudson silt loam, 3-8% slopes
HuC - Hudson silt loam, 8-15% slopes
HwD - Hudson and Schoharie soils, 15-25% slopes
LCD - Lackawanna and Swartswood soils, moderately steep, very bouldery
LOC - Lordstown-Arnot-Rock outcrop complex, sloping
Ma - Madalin silty clay loam
MgB - Mardin-Nassau complex, 3-8% slopes
MTB - Morris-Tuller complex, gently sloping, very bouldery
NBF - Nassau-Bath-Rock outcrop complex, very steep
Pa - Palms muck
QU - Quarry
RhA - Rhinebeck silt loam, 0-3% slopes
STD - Stockbridge-Farmington-Rock outcrop complex, hilly
TkB - Tunkhannock gravelly loam, 3-8% slopes
W - Water
Wb - Wayland soils complex, non-calcareous substratum, 0-3% slopes, frequently flooded
WLB - Wellsboro and Wurtsboro soils, gently sloping, very bouldery

Base Map: Web Soil Survey 3.2 – Ulster County Soil Survey, N.Y. Scale: 1:9,990

NCES
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FIGURE 2 – Soil Survey Map

The dominant species of vegetation observed within the Successional red cedar woodland ecological community included, but are not limited to: eastern red cedar (*Juniperus virginana*), gray birch (*Betula populifolia*), black walnut (*Juglans nigra*), white ash (*Fraxinus americana*), common buckthorn (*Rhamnus cathartica*), Japanese barberry (*Berberis thunbergii*), and Tatarian honeysuckle (*Lonicera tatarica*), and oriental bittersweet (*Celastrus orbiculatus*).

The dominant species of vegetation observed within the Successional northern hardwood ecological community include, but are not limited to: quaking aspen (*Populus tremuloides*), bigtooth aspen (*Populus grandidentata*), gray birch, black cherry, red maple, red pine (*Pinus resinosa*), white pine, American beech, sugar maple, yellow birch, hophornbeam (*Ostrya virginiana*), striped maple (*Acer pensylvanica*), witch hazel (*Hamamelis virginiana*), starflower, Canada mayflower, intermediate wood fern (*Dryopteris intermedia*), and Christmas fern (*Polystichum acrostichoides*).

The dominant species of vegetation observed within the Successional old field ecological community include, but are not limited to: eastern red cedar, staghorn sumac (*Rhus typhina*), multiflora rose, Canada goldenrod (*Solidago canadensis*), wild carrot (*Daucus carota*), spotted knapweed (*Centaurea maculosa*), common burdock (*Arctium minus*), raspberries (*Rubus* spp.), evening primrose (*Oenothera biennis*), common dandelion (*Taraxacum officinale*), giant goldenrod (*Solidago gigantiea*), calico aster (*Symphyotrichum lateriflorum*), tall goldenrod (*Solidago altissima*), flat-top goldentop (*Euthamia graminifolia*), timothy (*Phleum pratense*), Kentucky bluegrass (*Poa pratensis*), and Orchard grass (*Dactylis glomerata*).

The dominant species of vegetation observed within the Mowed lawn with trees community included, but are not limited to: eastern red cedar, red oak, red maple, Kentucky bluegrass, Pennsylvania sedge, clover (*Trifoium* spp.), and a variety of grasses (*Poa* spp.) and forbs. The areas surrounding the existing residential buildings are landscaped with ornamental trees, shrubs, and flowers.

The dominant species of vegetation observed within the Mowed field ecological community include, but are not limited to: Pennsylvania sedge, Kentucky bluegrass and timothy, with flowering dogwood (*Cornus florida*), red oak, and eastern red cedar on the perimeter of the fields.

The dominant species of vegetation observed within the Cropland/field crops ecological community include, but are not limited to: Orchard grass, timothy, and alfalfa (*Medicago sativa).*

The dominant species of vegetation observed within the Appalachian oak-pine forest ecological community included, but are not limited to: red pine, white pine, red oak, white oak, chestnut oak, eastern hemlock, red maple, beech, black cherry, striped maple, and partridgeberry.

The dominant species of vegetation observed within the Appalachian oak-hickory forest ecological community included, but are not limited to: red oak, white oak, chestnut oak, shagbark hickory, pignut hickory (*Cayra glabra*), flowering dogwood, red maple, hophornbeam (*Ostrya virginaia*), witch hazel, striped maple, wild sarsaparilla, and Pennsylvania sedge.

The dominant species of vegetation observed within the Red maple-hardwood swamp ecological community include, but are not limited to: red maple, green ash (*Fraxinus pennsylvanica*), white ash, American elm (*Ulmus americana*), yellow birch (*Betula alleghaniensis*), Swamp white oak (*Quercus bicolor*), bitternut hickory (*Carya cordiformis*), black gum (*Nyssa sylvatica*), musclwood (*Carpinus carolinana*), winterberry (*Ilex verticillata*), elderberry (*Sambucus canadensis*), highbush blueberry (*Vaccinium corymbosum*), silky dogwood (Cornus amomum), gray dogwood (*Cornus racemosa*), red-osier dogwood (*Cornus sericea*), sensitive fern (*Onoclea sensibilis*), royal fern (*Osmunda regalis*), lake sedge (*Carex lacustris*), tussock sedge (*Carex stricta*), skunk cabbage (*Symplocarpus foetidus*), and jewelweed (*Impatiens capensis*).

The dominant species of vegetation observed within the Red maple-Black gum swamp ecological community include, but are not limited to: black gum, red maple, highbush blueberry, greenbrier (*Smilax rotundifolia*), skunk cabbage, sensitive fern, Virginia creeper (*Parthenocissus quinquefolia*), poison ivy (*Toxicodendron radicans*), and sphagnum moss (*Sphagnum* spp.)

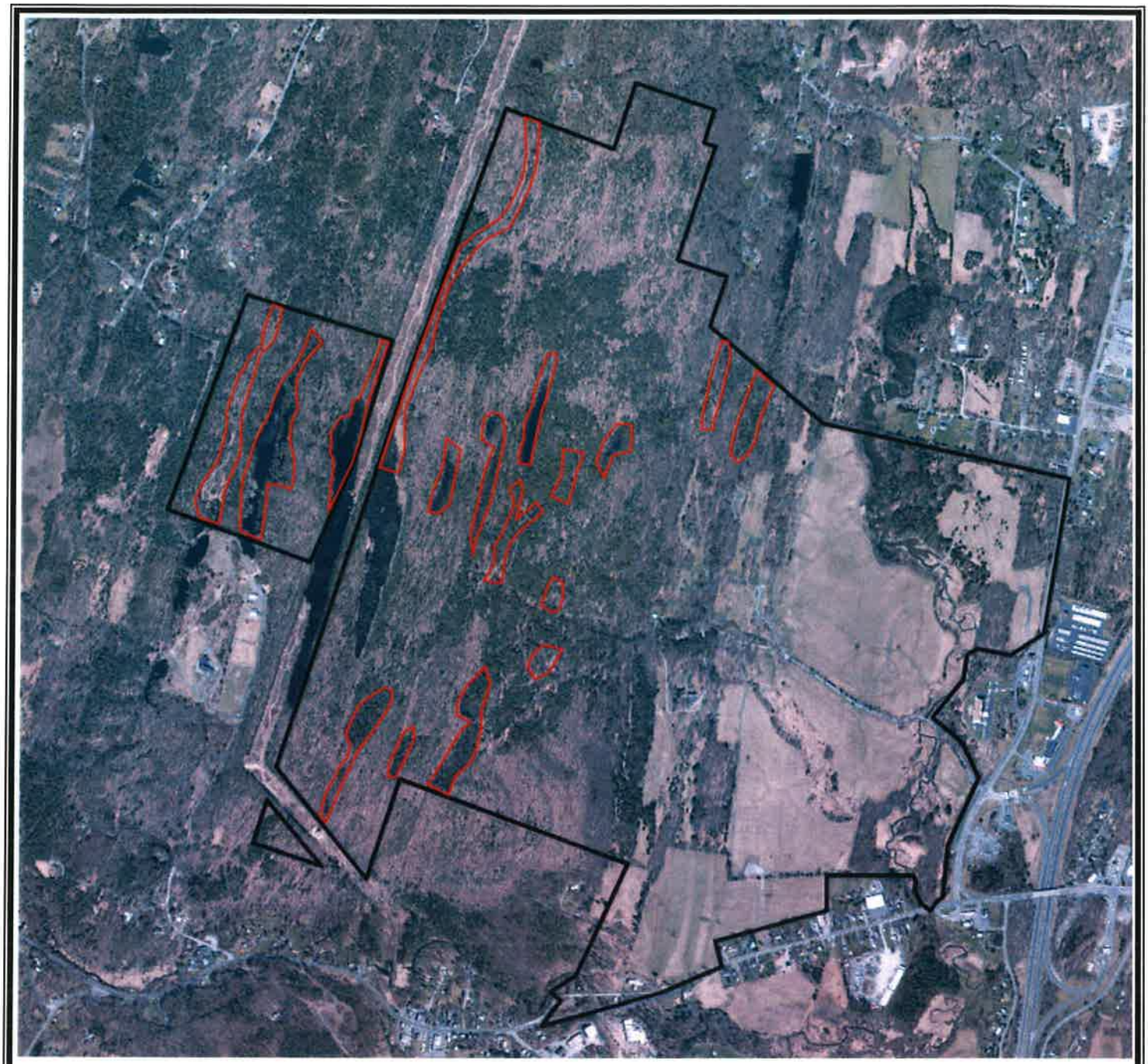
The dominant species of vegetation observed within the Hemlock-hardwood swamp ecological community include, but are not limited to: eastern hemlock, red maple, highbush blueberry, pin oak (*Quercus palustris*), black gum, green ash, musclewood, skunk cabbage, blue flag iris (*Iris versicolor*), tussock sedge, sphagnum moss, and sensitive fern.

The dominant species of vegetation that were observed within the Vernal pool ecological community included, but are not limited to: pin oak, black gum, green ash saplings, musclewood, red maple, silky dogwood, gray dogwood, red-osier dogwood, mountain laurel (*Kalmia latifolia*), elderberry, highbush blueberry, and buttonbush (*Cephalanthus occidentalis*). Each vernal pool that was documented within a wetland, and whether amphibian breeding was documented are outlined in Table 3 and in Figure 3.

Table 3

Vernal Pools

Wetland ID	Size (Acres)	Amphibian Breeding (Y/N)	Egg Mass
B	1.22	Y	5
C	0.62	Y	5
D	0.59	Y	2
F	0.80	Y	25
G	0.60	Y	4
H	0.20	N	None
HH	0.41	N	None
L	0.67	N	None



Legend

Site Boundary

Vernal Pools
*Approximate

Base Map: ArcGIS Imagery – Ulster County, N.Y.

Scale: None

NCES
North Country Ecological Services, Inc.

FIGURE 3 – Vernal Pools

I	0.80	N	None
J	0.54	N	None
P	0.36	N	None
S	0.28	N	None
Total	**7.09±Acres**		

The dominant species of vegetation that were observed within the Palustrine scrub-shrub wetland ecological community included, but are not limited to: pin oak, black gum, green ash, musclewood, red maple, silky dogwood, gray dogwood, red-osier dogwood, mountain laurel, common buckthorn, multiflora rose, elderberry, high-bush blueberry, and buttonbush, skunk cabbage, tussock sedge, jewelweed, and sensitive fern.

The dominant species of vegetation observed within the Palustrine emergent wetland included, but are not limited to: blue vervain (*Verbena hastata*), cattail (*Typha latifolia*), giant goldenrod (*Solidago gigantea*), wrinkle leaf goldenrod (*Solidago rugosa*), slender goldenrod (*Solidago tenuifolia*), common reed (*Phragmites australis*), Reed canary grass (*Phalaris arundinacea*), arrowleaf tearthumb (*Persicaria sagittata*), royal fern, deertongue grass (*Pancium clandestinum*), halberd-leaf tearthumb (*Persicaria arifolium*), swamp smartweed (*Persicaria hydropiperoides*), sensitive fern, yellow flag iris (*Iris pseudacorus*), blue flag iris, soft rush (*Juncus effusus*), water purslane (*Ludwigia palustris*), purple loosestrife (*Lythrum salicaria*), square-stemmed monkeyflower (*Mimulus ringens*), swamp loosestrife (*Decodon verticillatus*), false nettle (*Bohemeria cylindrica*), nodding beggarticks (*Bidens cernua*), devil's Beggartick (*Bidens frondosa*), hop sedge (*Carex lupulina*), shallow sedge (*Carex lurida*), tussock sedge, skunk cabbage, soft rush (*Juncus effusus*), sweet flag (*Acorus calamus*), wool grass (*Scirpus cyperinus*), moneywort (*Lysimachia nummularia*), dark green bulrush (*Scirpus atrovirens*), fox sedge (*Carex vulpinoidea*), jewelweed, and fowl manna grass (*Glyceria canadensis*).

The dominant species of vegetation observed in the Open water pond community included, but are not limited to: white water lily *(Nymphaea odorata)*, spotted water hemlock (*Cicuta maculata*), water smartweed (*Persicaria amphibium*), duckweed

(*Lemna minor*) The periphery of the pond community also possesses some of the same species of Palustrine emergent wetland vegetation.

4.4 Hydrology

The main sources of hydrology that influence the wetlands on-site appear to originate from direct precipitation, surface water runoff, groundwater discharge, and perennial, ephemeral, and intermittent streams.

Ground water discharge and surface water runoff feed the intermittent and ephemeral streams that are found on-site. Most of the streams identified were found in natural drainages that flow into the wetlands on-site. The intermittent stream identified within the western portions of the Site flows from north to south into the open water pond of Wetland H. The other intermittent stream identified on-site flows from west to east and into the Beaver Kill. The Beaver Kill is a perennial stream that flows from the south to the north into Kaaterskill Creek. The Kaaterskill Creek merges with the Catskill Creek which then dispenses directly into the Hudson River. The Hudson River is classified by the USACE as a Traditional Navigable Waterway (TNW).

4.5 Flora and Fauna Inventory

During each of the ecological field reviews, NCES recorded the individual species of flora and fauna that were observed. Copies of the Observed Flora and Observed Fauna Species Lists, which document the species identified on the property, are contained in Appendix H.

Plants were identified by direct observation, while animals were identified visually; by vocalization; tracks, scat, or other physical remains (bones, fur, feathers, etc.). As a result of the multi-season survey, NCES physically confirmed a total of 177 species of flora and 132 species of fauna on the Site. The flora observed consists of 32 species of trees, 25 species of shrubs, and 114 species of herbaceous plants, and 6 species of vine. The fauna

inventory revealed 18 species of mammals, 96 species of birds, 16 species of amphibian/reptiles, and 2 species of fish on the Site.

NCES combined the overall observed and anticipated species lists and generated a list of all species of wildlife (observed and assumed possible) and then correlated them with the individual community types that they inhabit and/or are associated with (at some stage in their respective life cycles). NCES designated this list as the Fauna Associated Habitats List. The Fauna Associated Habitats List contained in Appendix I.

4.6 Invasive Species

During the field assessments, NCES documented species of flora that are identified by the DEC as being non-native, invasive plants. These species include, Tatarian honeysuckle, common buckthorn, Japanese barberry, purple loosestrife, common reed, and oriental bittersweet. Additionally, NCES documented the presence of the Emerald ash borer (*Agrilus planipennis*) (EAB) and the Hemlock woolly adelgid (*Adelges tsugae*) (HWA); both terrestrial invasive species. The presence of the EAB was noted on ash trees found within the forested wetlands on-site. NCES observed dead and/or dying trees and noted the S-shapes under the bark, and multiple exit holes; both characteristic EAB infestation signs. Due to the increased HWA distribution throughout New York State, NCES searched for signs of HWA infestation. On the underside of eastern hemlock branches, NCES noted the white wooly ovisacs. Most of the infected hemlock trees are confined within the western portions of the Site, to the west of the utility corridor.

The woody invasives are found throughout the forested portions of the Site located along the logging roads and unpaved foot trails. The herbaceous invasives are contained within the emergent wetlands that are found immediately adjacent to the logging roads/foot trails. The most probable cause for the distribution of these invasive species is the result of foot traffic, fauna, and motor vehicles, that traverse the Site and transport the seeds.

4.7 Habitat Connectivity

The on-site ecological communities possess large areas of contiguous, undeveloped areas comprised of forested uplands and Palustrine wetlands. These communities are physically connected with one another and general travel corridors (pathways/trails) were noted once snow covered the ground.

The lack of development on-site allows for the formation of large tracts of contiguous habitat that is utilized by a variety of wildlife species. The undeveloped lands altogether provide foraging, nesting, resting, breeding, and cover habitats for indigenous and migratory species. Species of wildlife can traverse all portions of the Site and adjacent, undeveloped land. The only impediments to natural wildlife movement are the steep terrain and the open water components found on-site.

During the reviews, NCES was able to document certain areas of the Site where wildlife seemed to travel more routinely than others. These frequently used travel routes are primarily influenced by the topography and developed portions of the Site. Based on the observations made, frequent animal movement of larger fauna such as deer, bear, fox, coyote, etc. was noted along the ridges found within the central and western portions of the Site. The larger animals utilize these levels to navigate and travel around the steep terrain located to the west. Where possible, the large mammals tend to move in less steep areas, taking advantage of the logging roads and foot trails.

During the spring, summer, and early fall months, animal movement is generally un-restricted. During the winter and early spring months, deer movement was more concentrated around the existing residences and edges of the agricultural fields. These areas contain food sources such as bird feeders, ornamental shrubs and flowers, fallow fields, and grass lawns.

Other species such as fox and coyote move throughout the Site in a more casual manner, as associated food sources are more diverse and less concentrated in certain areas of the Site. These species tended to be encountered wherever food sources were prevalent.

Aquatic fauna, such as beaver was noted on-site. Beaver activity such as cuttings and chewings were noted along the riparian buffers of the Beaver Kill and open water ponds located on-site. Several maintained dams and active lodges were noted in the western half of the Site specifically within Wetland areas H and L. These areas possess plentiful food resources (shrubs & trees) that are utilized by beavers year-round.

Amphibian and reptile species were identified within and alongside the aquatic resources located on-site. Additionally, snake sheds and predated turtle eggs were found adjacent to the larger wetlands such as the Beaver Kill and Wetland area H. All the aquatic resources on-site possessed habitat that is conductive to amphibian breeding. Specifically, some of the wetland areas consisted of vernal pools that were used by frogs and salamanders. NCES observed frogs within the logging road tire ruts that possessed standing water. The observation of salamanders was generally limited to the scrub-shrub wetlands, vernal pools, and open water ponds, except for red-backed salamanders and red efts, which were documented throughout the undeveloped forested uplands. The turtles that were observed predominantly existed within the open water portions of the Site.

After review of the breeding bird and raptor surveys conducted throughout 2022 and 2023, it was determined that each avian species had a specific habitat that generally preferred by each Family.

Species of birds within the Families Parulidae, Vireonidae, and Picidae containing warblers, vireos, and woodpeckers were found within the interior forested uplands. Bald Eagles (*Haliaeetus leucocephalus*) were observed soaring over the Site and perched along the Beaver Kill during a few surveys. NCES did not note any nests on-site. Species within the Families Passerellidae, Troglodytidae, Fringillidae, Sturnidae, and Turdidae such as sparrows, wrens, finches, starlings, and robins were observed within the successional old field, mowed lawn, edges of existing development and agricultural fields community types.

Species of birds within the Family Anatidae such as wood duck, black duck, mallard, and green-winged teal were observed wading within the open water components of the Site. Other aquatic associated birds within the Family Tyrannidae, Hirundinidae, and Ardeidae such as kingbirds, flycatchers, swallows, and herons were documented in the Palustrine wetland communities that abut the larger open water ponds. The documented waterfowl habitat includes the vegetated cover types associated with the open water pond and the Beaver Kill, where habitat is most abundant and foraging activities are concentrated.

During the various site surveys, no waterfowl nests were discovered along the shorelines of the Beaver Kill or open water communities. The presence of the species within the distinct ecological communities was based on nesting cover and generalized forage base. The waterfowl use the open water components for roosting. Wood ducks, one of the more common species at the Site, use cavities in dead/damaged trees for nesting purposes.
The largest biodiversity noted on-site is found along the Beaver Kill and in the western portions of the Site surrounding the open water and Palustrine wetland habitats. These habitats offer abundant nesting cover for avian species, and provide a direct route to open water communities that contain insect hatches, thus providing a forage base. NCES observed a greater amount of bird species in these areas when compared to the rest of the Site. The limited amount of activity within the central portions of the Site is due to a monotypic forested community. These forested areas contained a thick overstory of eastern hemlock, maple, and oaks with a lack of herbaceous vegetation. Therefore, a minimal amount of bird activity was noted in these areas. NCES observed black crow, tufted titmouse, black-capped chickadee, and Eastern wood pewee in the forested areas.

Nighttime surveys, conducted after sunset and before sunrise, revealed the presence of waterfowl and various frogs. Sampling locations for the nighttime surveys were set within the agricultural fields adjacent to the Beaver Kill, and within the higher elevations of the Site located along the utility corridor, and major open water aquatic resources. The locations of the nighttime surveys were assigned based on where the most daytime activity was recorded.

5.0 Agency Referenced Endangered and Threatened Species

NCES consulted with the DEC ERM regarding the potential for presence of endangered, threatened, or special concern (E, T, SC) species on or within the immediate vicinity of the Site. NCES was directed to contact the NYSDEC NHO. The information obtained from the NHO identifies that green rock cress (*Borodinia missouriensis*), a New York State Threatened vascular plant was documented at the Site in 2001. The NHO identifies Species of Special Concern (SSC), and ecological communities of High-Quality Occurrence and/or Rare ecological communities within the Site. The correspondence with the NHO (dated January 10, 2023) is contained in Appendix C.

The USFWS was contacted regarding the presence of any Federally-listed Threatened or Endangered species that may be located on or within the immediate vicinity of the Site. The information obtained from the USFWS website indicates that there is the potential for the Indiana Bat (*Myotis sodalist*) and the Monarch Butterfly (*Danaus plexippus*) to be present. The Monarch Butterfly is currently a candidate species only, it does not receive protection under the Endangered Species Act. The correspondence from the USFWS (dated October 11, 2022) is contained in Appendix C.

5.1 Species Specific Reviews

The following sub-sections provide specific habitat assessments of those species that were identified in the USFWS and the NHO correspondences as having been presently/historically recorded within Ulster County, New York, and thus having the potential to be found at the Site. The information provided by the USFWS and NHO is only relative to known occurrences. Therefore, any lack of endangered or threatened species information within these sub-sections does not exclude the potential for additional ETR species from existing on-site.

5.1a Indiana Bat Habitat Assessment

During the ecological investigations, NCES assessed the Site in search of habitats that exhibit the criteria for potential summer roosting sites and suitable foraging habitat for Indiana Bats. NCES also searched for any caves, mines or other man-made structures that could be used as roosts or as an over-wintering hibernaculum. NCES utilized information obtained from the USFWS, including the 2023 "*Range-Wide Indiana Bat & Northern Long-eared Bat Survey Guidelines*", which defines criteria of potential habitat for the species.

According to the USFWS, suitable Indiana Bat summer habitats are characterized as forested communities that possess live and dead trees with "loose bark, cavities or crevices", "...cooler places like caves and mines", and found roosting in "structures like barns and sheds". The Indiana Bat is known to roost independently or within colonies. Wintering habitat for the Indiana Bat is defined as being within "caves and mines" that possess "large passages and entrances; constant temperatures; and high humidity with no air currents". Potential foraging habitat for the Indiana Bat is defined as "…understory of forested hillsides and ridges". The Indiana Bat is also known to glean "motionless insects from vegetation and water surfaces".

During the review, NCES identified trees within the boundaries of the Site that exhibit the characteristics of potential roosts for the Indiana Bat. The potential roost trees documented included: shagbark hickory; oaks (*Quercus* spp.), black cherry, dead/dying ash (*Fraxinus* spp.), sugar maple (*Acer saccharum*), and dead/dying elm. These trees are scattered throughout the upland and wetland forested communities as well as within the riparian forest buffer zones.

Based on the overall assessment of the Site, suitable roosting and foraging habitat was identified for the Indiana Bat. NCES did not complete presence/absence surveys such as mist netting, acoustical monitoring, or radio-telemetry, to document the actual presence of the Indiana Bat.

5.1b Bog Turtle Phase 1 Habitat Assessment

A Phase I Habitat Evaluation was completed for the Bog Turtle (*Glyptemys muhlenbergii)* by NCES, as a proactive approach. Bog Turtles are listed as an Endangered Species by the DEC and USFWS and are protected against any impact under the Endangered Species Act (ESA). Individual Bog Turtles can travel more than 1.0 mile from documented locations, and if habitat suitable to their existence is determined to be present, could be found at the Site. The purpose of the Phase I Habitat Evaluation was to determine if habitat conducive to the inhabitation of Bog Turtles is present within, or immediately adjacent to the Site.

The Phase I Bog Turtle Habitat Evaluation was conducted on April 8, 2023 by NCES Biologists Stephen P. George, PWS and accompanied by Assistant Ecologist Luka Koziol. Stephen P. George is a recognized biologist by the USFWS and the DEC as a "Qualified Bog Turtle Surveyor" within the Hudson River/Housatonic Recovery Unit in New York State. Resumes of NCES staff are provided in Appendix B.

NCES completed the Phase I Habitat Evaluation following the procedures outlined in the *Guidelines for Bog Turtle Surveys* (last revised April 2020), as contained within the "Bog Turtle Northern Population Recovery Plan" (the "BTNPRP"), (USFWS, 2001). According to the BTNPRP, suitable habitat for Bog Turtles includes Palustrine emergent or scrub-shrub wetlands that contain the following three criteria:

1) Suitable hydrology – characterized as "…Typically spring fed with shallow surface water or saturated soils present year-round…", "interspersed with dry and wet pockets…", "…sub-surface flow", and "…shallow rivulets (less than 4 inches deep) or pseudo rivulets are often present."

2) Suitable soils – characterized as "… a bottom substrate of permanently saturated organic or mineral soils." "These are often soft, mucky-like soils; you will usually sink to your ankles (3-5 inches) or deeper in muck, although in degraded wetlands or summers of dry years this may be limited to areas near spring heads or drainage ditches." "In some portions of the species range, the soft substrate consists of scattered pockets of peat instead of muck."

3) Suitable vegetation – characterized as "dominant vegetation of low grasses and sedges (in emergent wetlands), often with a scrub-shrub component." "Common emergent vegetation includes, but is not limited to tussock sedge (*Carex stricta*), soft rush (*Juncus effusus*), rice cut grass (*Leersia oryzoides*), sensitive fern (*Onoclea sensibilis*), tearthumb (*Polygonum* spp.), jewelweed (*Impatiens capensis*), arrowheads (*Sagittaria* spp.), skunk cabbage (*Symplocarpus foetidus*), panic grasses (*Panicum* spp.), other sedges (*Carex* spp.), spike rushes (*Eleocharis* spp.), grass-of-Parnassus (*Parnassia glauca*), shrubby cinquefoil (*Dasiphora fruticosa*), sweet flag (*Acorus calamus*), and in disturbed sites, reed canary grass (*Phalaris arundinacea*) and purple loosestrife (*Lythrum salicaria*)." Common scrub-shrub species include alder (*Alnus* spp.), red maple (*Acer rubrum*), willow (*Salix* spp), tamarack (*Larix laricina*), and in disturbed sites, multiflora rose (*Rosa multiflora*). "Some forested wetland habitats are suitable given hydrology, soils, and/or historic land use. These include red maple, tamarack, and cedar swamps."

During the Phase I Habitat Evaluation, NCES staff traversed the Site and assessed the aquatic resources to determine if they exhibit the three characteristic criteria of suitable Bog Turtle habitat.

Based on the ecological conditions observed during the Phase I Habitat Evaluation, no vegetated wetlands exhibiting the characteristics of Bog Turtle habitat are found within the boundaries of the Site. While a Palustrine emergent wetland exists along the Beaver Kill and open water ponds on-site, it does not possess the characteristics of suitable Bog Turtle habitat. A Phase I Bog Turtle Habitat Assessment Form was compiled for the Palustrine emergent wetlands identified and a completed form is contained in Appendix J.

The forested wetlands identified on-site show signs of routine flooding and fluctuating water levels during spring thaw or at times of heavy precipitation events. Portions may be groundwater derived, but no rivulets or sub-surface channels were identified during the field assessment. The only Palustrine emergent wetlands identified on-site are located along both sides of the Wetland A & AA, the eastern portion of Wetland B, and along the fringes of the open water ponds located in Wetland areas H, HH, and L. These areas are subject to routine flooding from the intermittent and perennial streams.

The soils within the wetland are comprised of a thin layer (<2 inches) of deposited organic material over a silty/sandy clay-loam. The soils are not mucky, nor are they comprised of an organic material that is conducive to burrowing activities required for thermo-regulation by Bog Turtles.

The forested and emergent wetlands located in the western portion of the Site contained saturated soils and receives hydrology from an intermittent stream, runoff from adjacent uplands, or precipitation. The forested community contained a dense overstory within 90% of the wetland and a very dense shrub component, thus inhibiting sun light for basking and egg laying for turtles. No Bog Turtle habitat was documented within any of the aquatic resources identified on-site.

5.1c Northern Cricket Frog Habitat Assessment

The Northern Cricket Frog (NCF) is listed by the NYSDEC as a NYS-listed Endangered species. The NCF is not a Federally-listed Endangered or Threatened species, as it is a common species throughout the southern portion of its range. Throughout southeastern New York, including the Hudson Highlands, and the Shawangunk region of Orange, Ulster, and Dutchess Counties, is positioned at the northernmost extent of the current range of the Northern Cricket Frog (NYSNHP, 2007). Northern Cricket Frogs are typically observed between late March and early April and again through mid-October while migrating to and from its summer and winter range.

The Northern Cricket Frog inhabits open emergent wetlands found along the edges of permanent water sources such as ponds, bogs, and lakes (Harding, 2000). They can also be found amongst emergent marsh-like vegetation located on sandy, gravelly, or muddy bars and banks of small slow moving intermittent streams (Conant and Collins, 1998). In winter months, Northern Cricket Frogs burrow in mucky soils below the frost line (DEC, 2007). In New York, Northern Cricket Frogs are believed to over winter in terrestrial habitats found adjacent to summer aquatic sites (NYSNHP, 2007).

Recent studies have shown that known Northern Cricket Frog inhabitation sites have been altered by Beaver (*Castor canadensis*) activities (NYNHP, 2007). Recent studies have also shown declines in amounts of suitable habitat for Northern Cricket Frogs (DEC, 2007). The decline of suitable habitat can be attributed to the clearing and drainage of wetlands associated with development and farming practices, the spraying of DDT and other pesticides, contamination of wetland habitat from road salts and the introduction of predatory fish species that feed on Northern Cricket Frog eggs (DEC, 2007).

NCES's evaluation for the NCF primarily focused on the wetlands and open water ponds in the western portion of the Site. Broken blue stone and shale ridges would provide overwintering habitat. The survey also focused on the stream and emergent wetland corridor associated with the Beaver Kill. Surveys conducted during the calling season (May – July) were conducted in the early mornings, late afternoon, and evening hours. During the 2023 survey sessions, no NCF calls were noted and NCES assumes there are none within this property. The Northern Cricket Frog Survey Form was compiled for the open water aquatic resources on-site. These forms are contained in Appendix K.

5.2 Other Species

During the ecological assessments, NCES did identify Bald Eagles on the property (NYS Threatened species). The Bald Eagle is protected by the Federal Bald and Golden Eagle Protection Act and the State Endangered Species Act. NCES did not observe any Bald Eagle nests within the boundaries of the Site. Bald Eagle perching and foraging activities were documented on-site. On April 8, 2023, NCES observed a juvenile Bald Eagle perched along the Beaver Kill. On October 13, 2023, NCES observed an adult Bald Eagle flying over the forested portions adjacent to the agricultural fields, and along Wetland area H.

During the field reviews, NCES searched the Site for species that are listed by the NYSDEC as Special Concern or that are categorized as "rare" by the 2017 Rare Species List. NCES assessed the Site for habitats that would be deemed conducive to the existence of these species.

The Great Blue Heron is a protected bird species and according to the 2017 Rare Animal List, it possesses global and state rankings of G5, S5. Therefore, the species is "common, widespread, and abundant" both geographically and within NYS. NCES observed Great Blue Herons along the Beaver Kill, and within the open water portions located within the western portions of the Site. During the field review, NCES noted a total of five (5) communal nests (rookery) within the southern portion of Wetland area H. No Great Blue Herons were observed actively using any of the nests.

The Red-headed woodpecker (*Melanerpes erythrocephalus*) is a NYS Species of Special Concern. The Red-headed woodpecker was documented at various locations along the Beaver Kill and within the open water components of Wetland H.

6.0 SUMMARY

As a result of the ecological investigations, inclusive of the flora and fauna inventory, ecological community assessment, and wetland delineation, NCES identified and documented the existing ecological character of the Site. As a result of the multi-season survey, NCES physically confirmed a total of 177 species of flora and 132 species of fauna on the Site. The flora observed consists of 32 species of trees, 25 species of shrubs, and 114 species of herbaceous plants, and 6 species of vine. The fauna inventory revealed 18 species of mammals, 96 species of birds, 16 species of amphibian/reptiles, and 2 species of fish on the Site. During the field reviews, no endangered species were identified.

A single Bald Eagle was observed soaring overhead on one occasion, and on another day, a juvenile was perched along the Beaver Kill. There were no Bald Eagle nests observed within the boundaries of the Site. On several occasions both mature and immature Bald Eagles were noted to the east of the Site soaring or perched along I-87 or Rt. 32.

NCES documented Vernal Pools and Red maple-Black gum swamps on-site that are listed by the NYSDEC NHO as High Quality Occurrence of Uncommon Community Type and Chestnut oak forest as High Quality Occurrence. One Species of Special Concern, the Red-headed woodpecker was documents on-site, and one species listed on the 2017 Rare Animal List, the Great Blue Heron, has the potential to be present on-site based on the habitat and rookery within the western portion of the Site.

During the site reviews, NCES identified twenty-one (21) different ecological communities within the boundaries of the Site. These ecological communities include: Chestnut oak forest, Hemlock-northern hardwood forest, Successional northern hardwoods, Successional red cedar woodlands, Successional old field, Mowed lawn with trees, Mowed field, Unpaved road/path, Cropland/field crops, Appalachian oak-pine forest, Appalachian oak-hickory forest, Palustrine forested wetland: Red maple-hardwood swamp, Red maple-black gum swamp, Hemlock-hardwood swamp, Vernal pool; Palustrine scrub-shrub Wetland, Palustrine emergent wetland, Open water pond, Perennial stream, and intermittent stream.

As a result of the delineation that was conducted by another firm, a total of 87.37± acres of vegetated wetland, that includes open pond was identified. In addition to the vegetated wetlands and open water pond, a cumulative total of 4,874± linear feet of defined perennial stream (Beaver Kill) and 7,796± linear feet of intermittent stream were also documented.

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Appendix A

Wetland Delineation Map

LEGEND:

PROPERTY BOUNDARY
EXISTING MAJOR CONTOUR
EXISTING MINOR CONTOUR
EXISTING WETLAND AREA
WETLAND FLAG

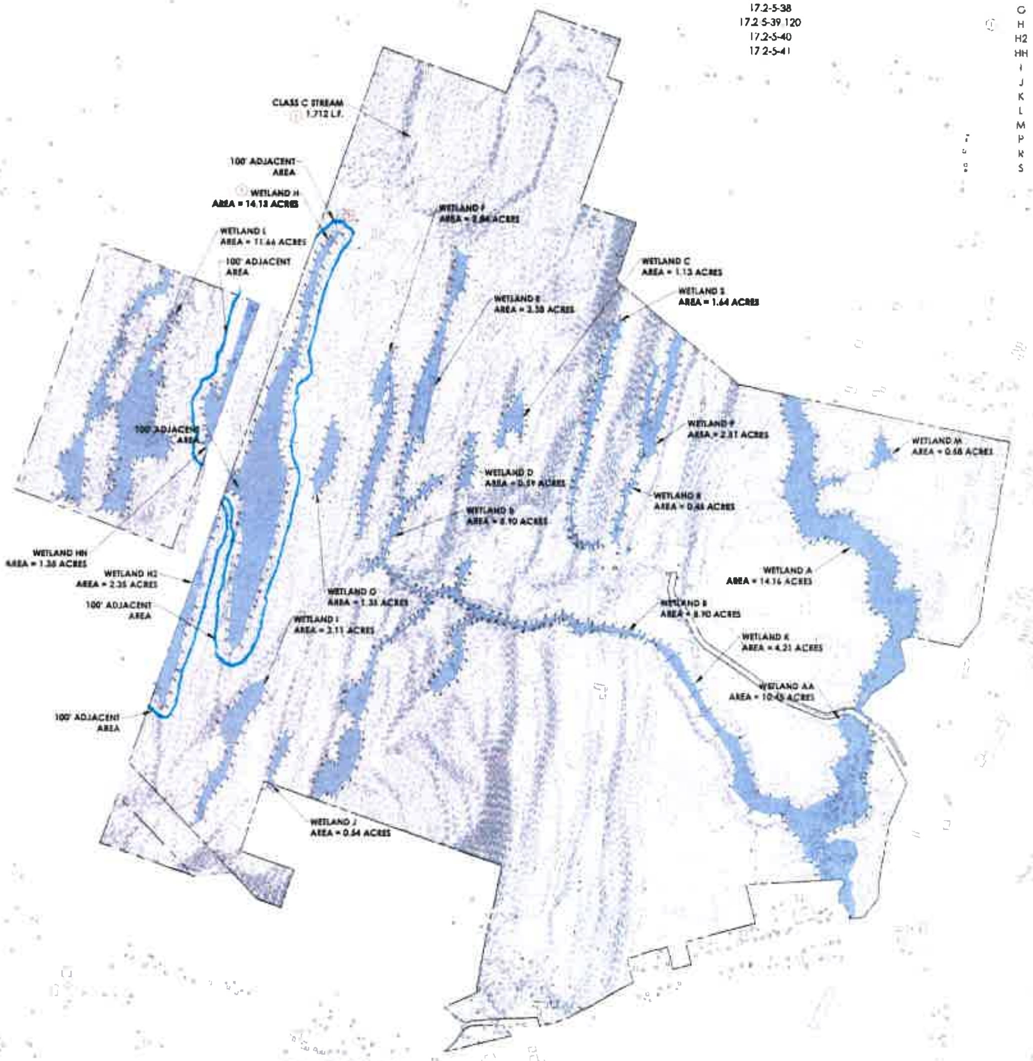
NOTES:

1. WETLANDS SHOWN AS FLAGGED IN 2021 BY MICHAEL NOWICKI OF ECOLOGICAL SOLUTIONS LLC AND ARE DEPICTED AS SURVEYED BY [illegible] AND [illegible] PC AND AS SHOWN IN THE FIELD SKETCH PROVIDED BY ECOLOGICAL SOLUTIONS LLC.

Parcel Number	Owner	Total Acreage
17.15-3-4	Saugerties Farm LLC	840 AC
17.15-3-8		
17.16-1-1.110		
17.16-1-36		
17.2-3-10		
17.2-3-15		
17.2-4-32		
17.2-5-38		
17.2-5-39.120		
17.2-5-40		
17.2-5-41		

Wetland Identifier	Total Acreage
A	14.16 AC
AA	10.45 AC
B	8.90 AC
C	1.13 AC
D	0.59 AC
E	3.38 AC
F	2.84 AC
G	1.35 AC
H	14.13 AC
H2	2.35 AC
HH	1.35 AC
I	3.11 AC
J	0.54 AC
K	4.21 AC
L	11.66 AC
M	0.58 AC
P	2.51 AC
R	0.45 AC
S	1.64 AC

HORIZONTAL SCALE
SCALE: 1"=500'



PASSERO ASSOCIATES
engineering architecture

SAUGERTIES FARM LLC

SAUGERTIES, NY

PASSERO ASSOCIATES

Principal in Charge: Jess Sudol, PE
Project Manager: Chris Lafferie, PE, CCS
Designed by: D.J. Swesski, EIT

Revisions

MAP OF WETLANDS

WINSTON FARM

20202934.0001

W-0

1

1" = 500'

JANUARY, 2021

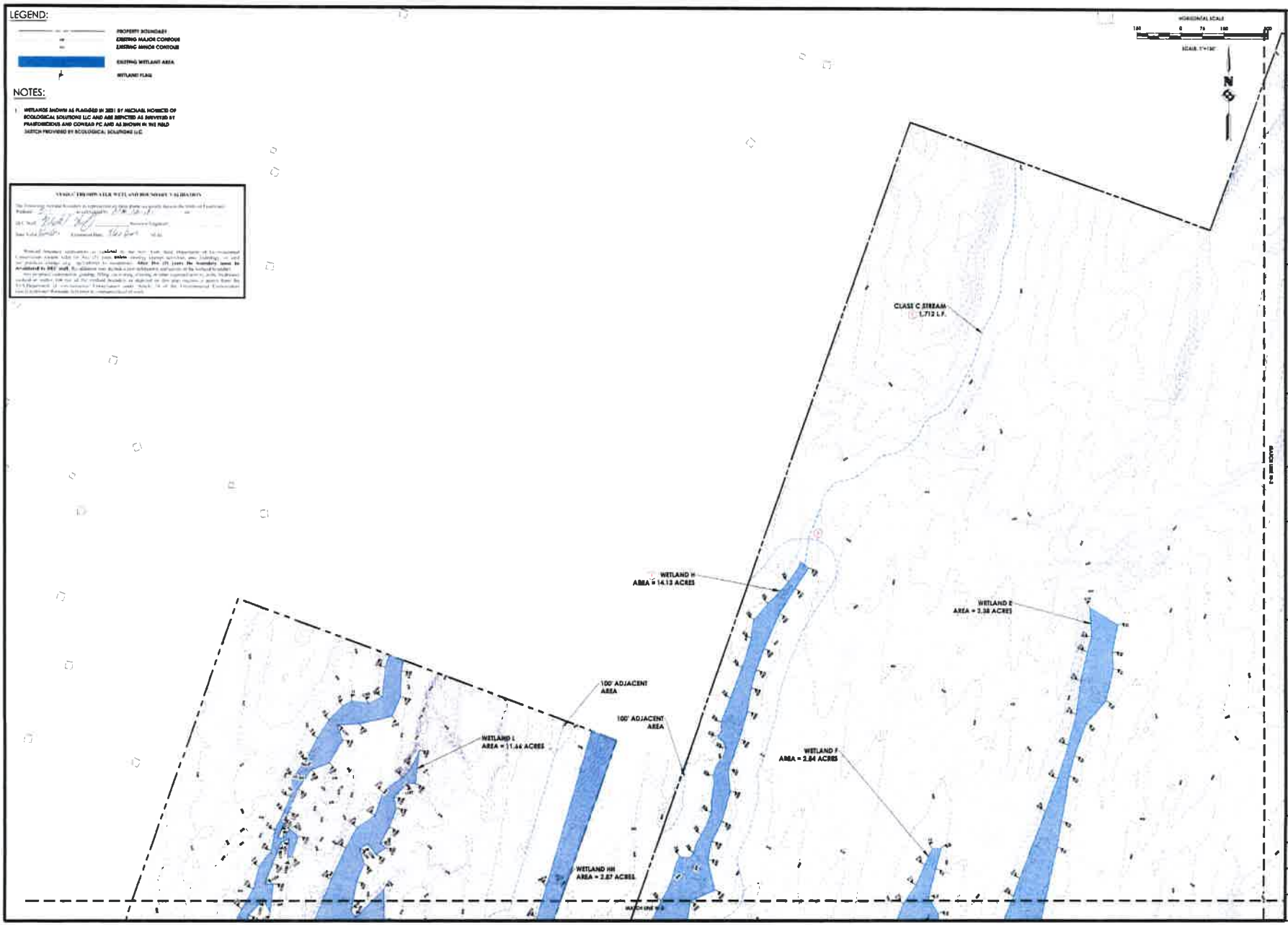
NOT FOR CONSTRUCTION

LEGEND:

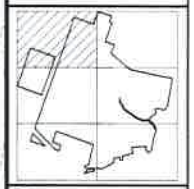
PROPERTY BOUNDARY
EXISTING MAJOR CONTOUR
EXISTING MINOR CONTOUR
EXISTING WETLAND AREA
WETLAND FLAG

NOTES:

1. WETLANDS SHOWN AS FLAGGED IN 2021 BY MICHAEL HOWSER OF ECOLOGICAL SOLUTIONS LLC AND ARE DEPICTED AS SURVEYED BY PRAETORIUSIUS AND CONRAD PC AND AS SHOWN IN THE FIELD SKETCH PROVIDED BY ECOLOGICAL SOLUTIONS LLC



PASSERO ASSOCIATES
engineering architecture



Client
SAUGERTIES FARM LLC

SAUGERTIES, NY

PASSERO ASSOCIATES

Revisions

MAP OF WETLANDS

WINSTON FARM

Project No
20202934.0001

Drawing No: W-1
Sheet No: 2

Scale
1" = 150'

Date
JANUARY, 2021

NOT FOR CONSTRUCTION

LEGEND:

PROPERTY BOUNDARY
EXISTING MAJOR CONTOUR
EXISTING MINOR CONTOUR
EXISTING WETLAND AREA
WETLAND FLAG

NOTES:

1. WETLANDS SHOWN AS FLAGGED IN 2021 BY MICHAEL ROMICKI OF ECOLOGICAL SOLUTIONS LLC AND ARE DEPICTED AS SURVEYED BY HEARTHSTONE AND CONRAD PC AND AS SHOWN IN THE FIELD SKETCH PROVIDED BY ECOLOGICAL SOLUTIONS LLC

HORIZONTAL SCALE
100 0 75 150 300
SCALE 1"=150'

N

MATCH LINE W-1

WETLAND S
AREA = 1.64 ACRES

WETLAND F
AREA = 2.51 ACRES

MATCH LINE W-4

PASSERO ASSOCIATES
engineering architecture

SAUGERTIES FARM LLC

SAUGERTIES, NY

PASSERO ASSOCIATES

Revisions

MAP OF WETLANDS

WINSTON FARM

Project No. 20202934.0001

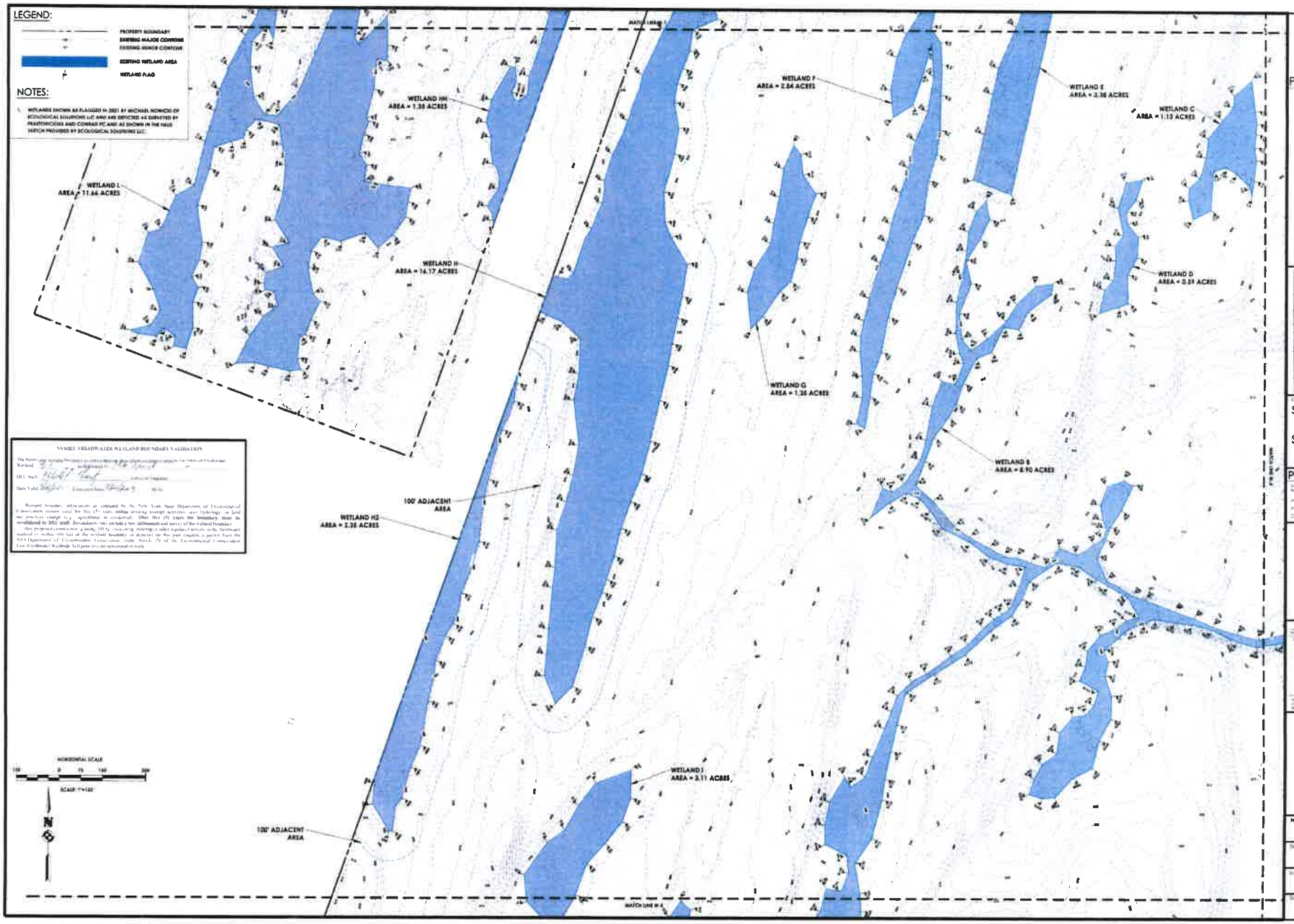
Drawing No. W-2

Sheet No. 3

Scale 1" = 150'

Date JANUARY, 2021

NOT FOR CONSTRUCTION



PASSERO ASSOCIATES
engineering architecture

SAUGERTIES FARM LLC

SAUGERTIES, NY

PASSERO ASSOCIATES

Revisions

MAP OF WETLANDS

WINSTON FARM

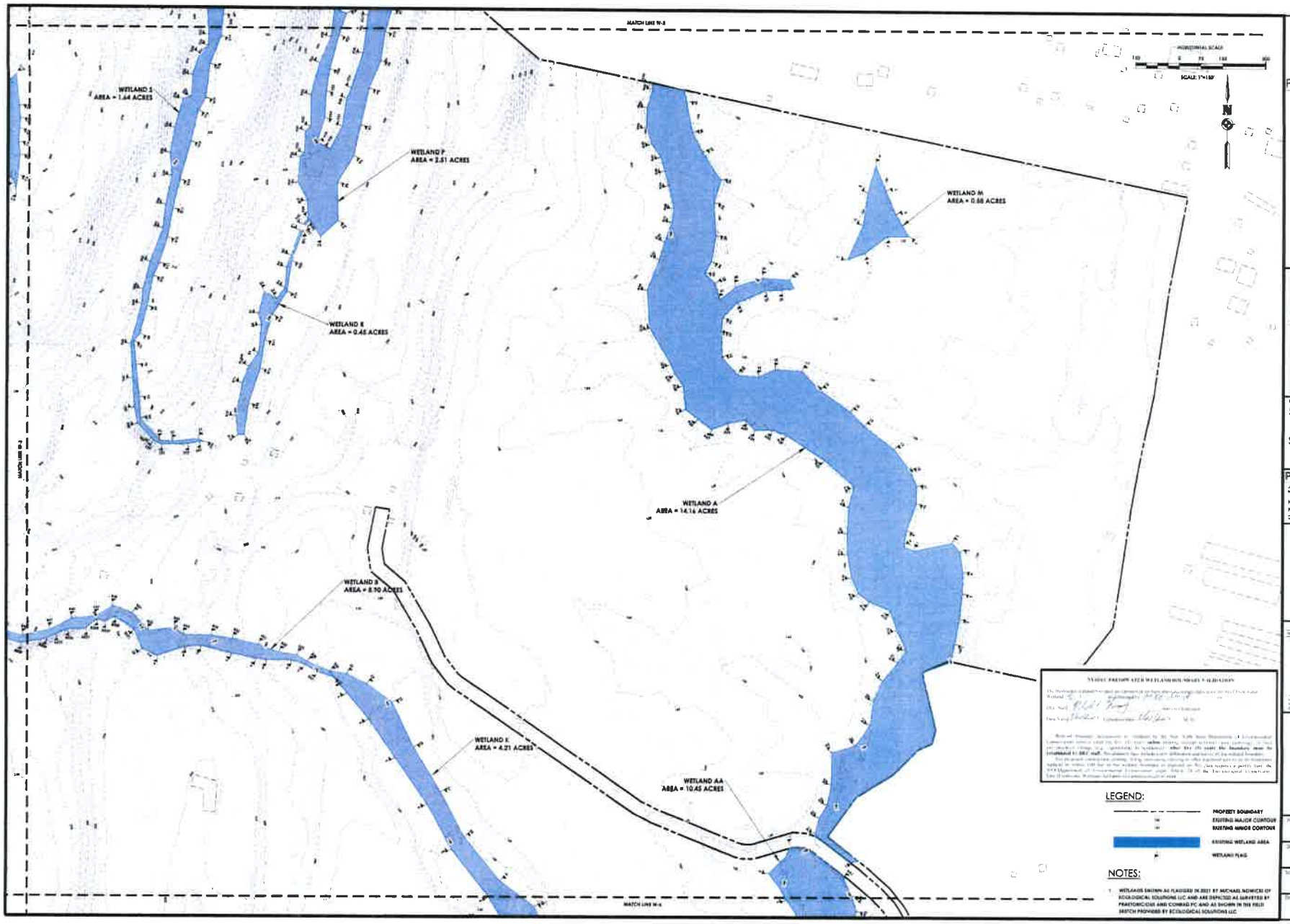
Project No
20202934.0001

W-3 | 4

1" = 150'

JANUARY, 2021

NOT FOR CONSTRUCTION



PASSERO ASSOCIATES
engineering architecture

SAUGERTIES FARM LLC

SAUGERTIES, NY

PASSERO ASSOCIATES

Principal in Charge: Rina Sudol, PE
Project Manager: Chris LaPorte, PE CDT
Designed by: D.J. Goodan EIT

Revisions

MAP OF WETLANDS

WINSTON FARM

Town/City: SAUGERTIES
County: ULSTER
State: NEW YORK

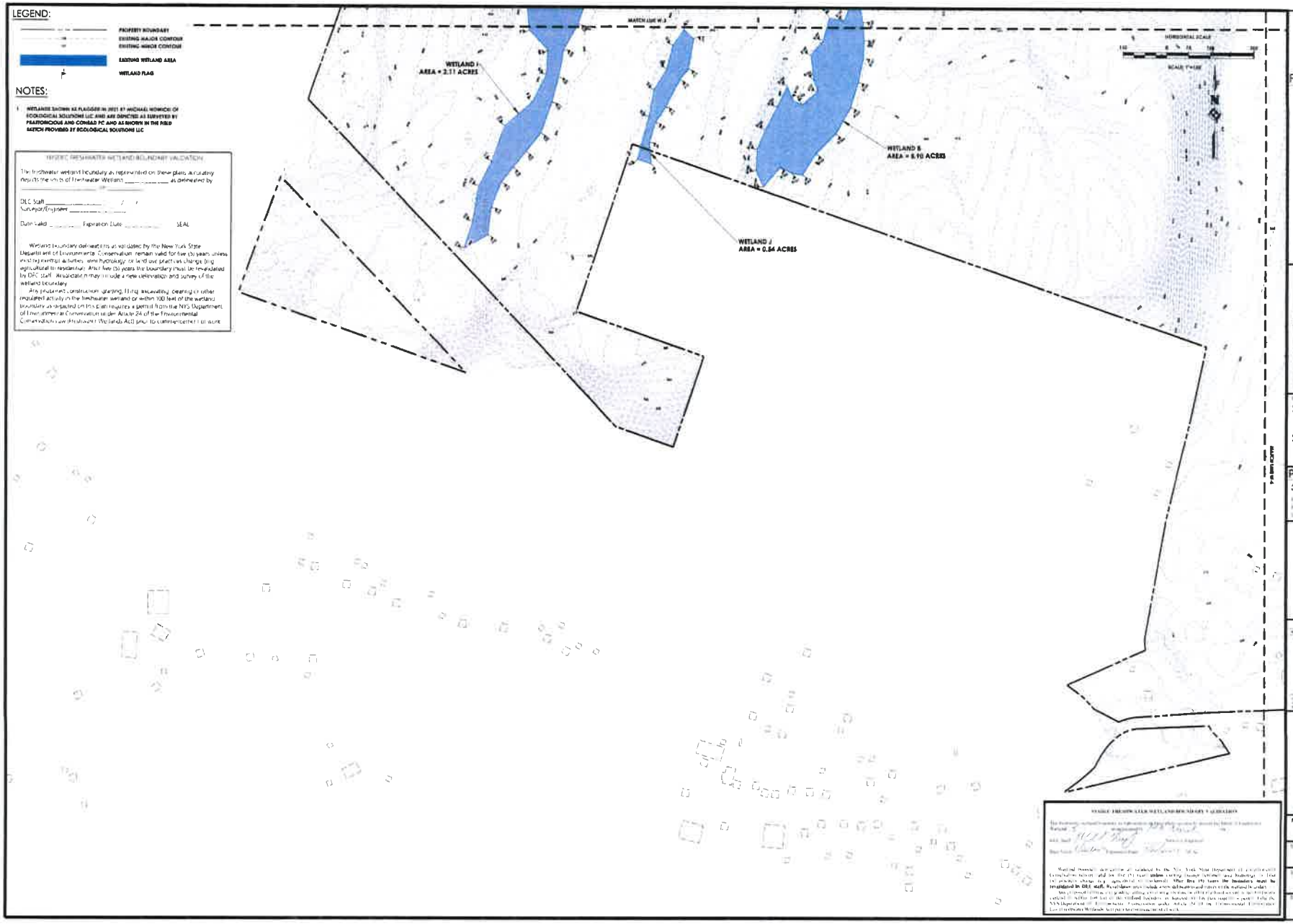
Project No: 20202934.0001

Drawing No: W-4
Sheet No: 5

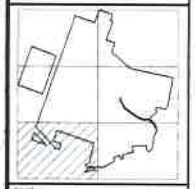
Scale: 1" = 150'

Date: JANUARY, 2021

NOT FOR CONSTRUCTION



PASSERO ASSOCIATES
engineering architecture



Client
SAUGERTIES FARM LLC
SAUGERTIES, NY

PASSERO ASSOCIATES

Revisions

MAP OF WETLANDS
WINSTON FARM

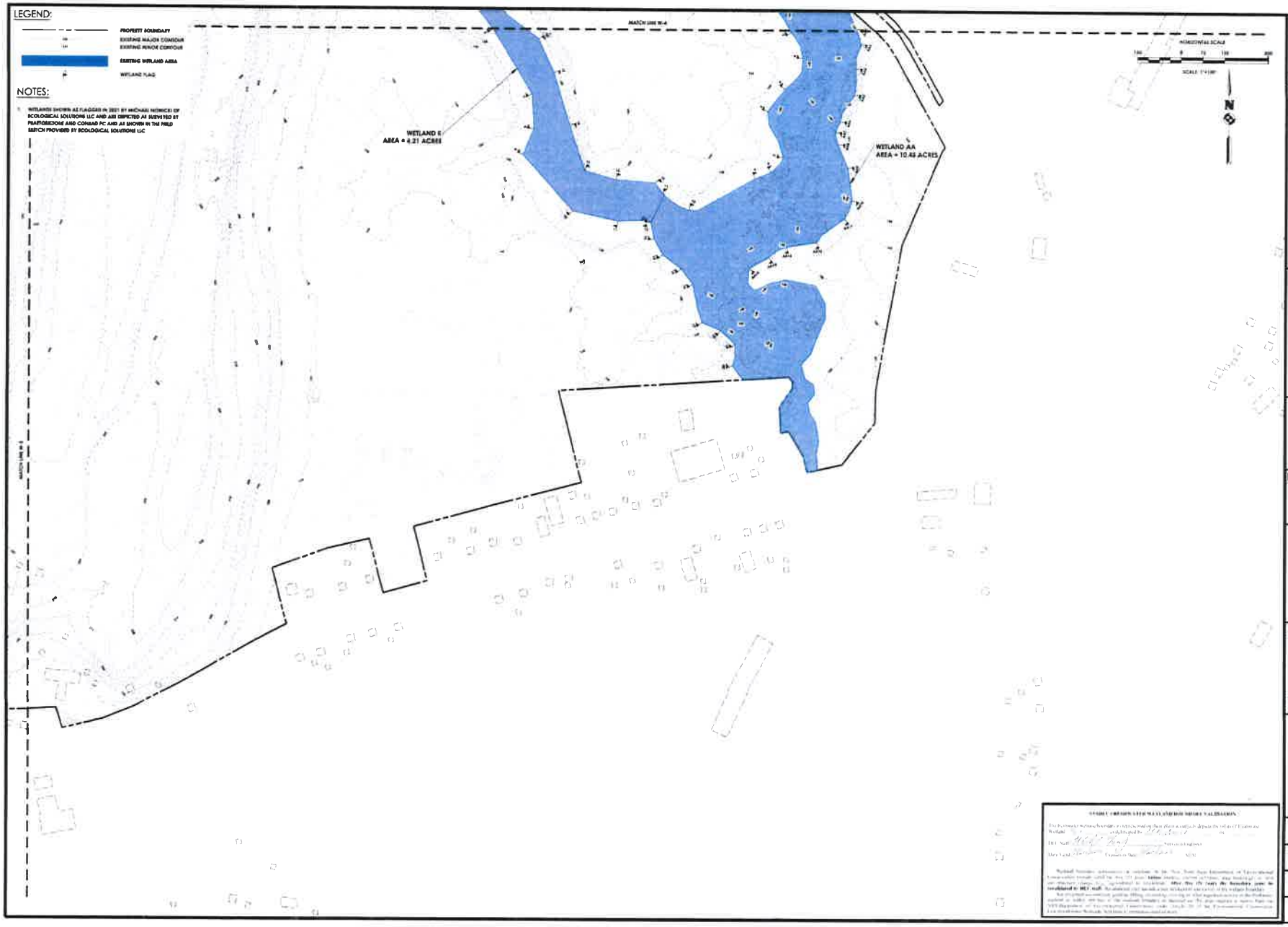
Project No.
20202934.0001

Drawing No. W-5
Sheet No. 6

Scale
1" = 150'

Date
JANUARY, 2021

NOT FOR CONSTRUCTION



PASSERO ASSOCIATES
engineering architecture

Client
SAUGERTIES FARM LLC

SAUGERTIES, NY

PASSERO ASSOCIATES

Revisions

MAP OF WETLANDS

WINSTON FARM

Project No.
20202934.0001

Drawing No. W-6 | Sheet No. 7

Scale
1" = 150'

Date
JANUARY, 2021

NOT FOR CONSTRUCTION

See PDF of the Wetland Delineation Map

Appendix B

NCES Staff Resumes

Education

B.A. - Environmental Science, Wildlife Management - 1983-1985, SUNY Plattsburgh, *Plattsburgh, NY*

A.A.S. - Natural Resources Conservation/Ecology – 1980 – 1982, SUNY Morrisville, *Morrisville, NY*

Experience

Mr. George possesses a wide range of experience in the fields of Ecology, Biology and Wetland Science. As the President and Senior Ecologist of North Country Ecological Services, Inc., Mr. George is responsible for: completing delineations of state and federal wetlands; compiling endangered and threatened species reports; completing habitat assessments and species inventories for flora and fauna; Environmental Impact Statement preparation; wetland mitigation design, construction, and monitoring; and, the preparation/finalization of reports and permit applications for submission to clients and regulatory agencies.

Work Experience

Owner, President & Professional Wetland Scientist (PWS)

1994–Present North Country Ecological Services, Inc. *Gloversville, NY*

Responsible for planning, execution, and completion of detailed technical reports for ecological studies including regulatory and legal issues. Also responsible for the preparation and execution of Environmental Impact Statements; habitat inventories; federal and state wetland delineations; wetland mitigation design, planting and wetland mitigation monitoring; wetland permit applications; endangered species evaluations; wildlife management plans; stormwater and erosion control plans; and, water quality monitoring.

Environmental Analyst/Ecologist

1989–1994 Smith & Mahoney, P.C. *Albany, NY*

Managed the development and co-authored Environmental Impact Statements for private, municipal, and commercial developments. Projects included residential housing developments, transfer stations, landfills, shopping malls, and industrial facilities. Supervised and conducted ecological studies and impact assessments of aquatic and terrestrial communities. Responsible for the preparation of federal and state wetland delineations, reports, mitigation, and the necessary permits for the clients. Assisted in the landfill siting process for the Saratoga County and the Montgomery-Otsego-Schoharie County Solid Waste Management Authority. Assisted in hazardous waste remediation projects. Duties also included assisting

survey department, construction inspection and monitoring, water quality analysis and monitoring, and methane gas monitoring at landfills.

Engineering Technician/Environmental Analyst
1986-1989 Phillip Clark Engineers and Associates, P.C. Newburgh, NY

Prepared Environmental Impact Statements, assisted the survey crew, and conducted environmental analysis. Resident Engineer and Construction Inspector on the Harriman and Middletown WWTF construction projects. Resident Engineer for several potable water, municipal sewer main projects, water tower installation, and roadway construction. Experience includes pipeline and building layout, directional boring, concrete testing, pressurized and gravity water main testing, and as-built documentation.

Specific Endangered & Threatened Species Experience

- Karner Blue Butterfly evaluations, Timber Rattlesnake field investigations, Bog Turtle Phase 1 and 2 Studies.

Additional Training

- ACOE Regulatory IV Course - Jurisdictional Wetland Delineation
- National Institute for Certification of Engineering Technologies – Highway Construction, Level II
- OSHA – 40 Hour Health and Safety at Hazardous Materials Sites
- Rutgers College – Freshwater Wetland Construction
- Rutgers College – Endangered and Threatened Species of Southern NJ
- Bat Study Techniques Workshop – Hands on training in mist netting and other capture techniques and bat species identification, handling, marking and ecology
- Volunteer to NYSDC, USFWS, Jason Tesauro - Conducted Phase 1 & 2 Bog Turtle Surveys in Columbia, Orange, & Dutchess Counties, New York.

Special Licenses

- NYSDEC – Nuisance Wildlife Control Operations
- NYSDEC – License to Collect and Possess & Endangered Species
- NYSDEC Sportsman's Education Instructor (firearm, archery, trapping, waterfowl identification)
- US Coast Guard - Captain
- NYSDEC Licensed Guide

Affiliations

- Society of Wetland Scientists
- NYS Wetland Forum, Co-Founder, Former Board Member
- National Bowhunter Education Foundation, President 2012-Present
- New York State Outdoor Writers Association

Publications

- Wildlife Society Bulletin, Volume 15, No. 2, Summer 1987 – Evaluation of Site Variables Affecting Nest Box Use by Wood Ducks.

Luka Koziol

NORTH COUNTRY
ECOLOGICAL SERVICES, INC.

Education

2018-2021 SUNY Brockport *Brockport, NY*

- BSc Environmental Science – Terrestrial Ecology and Biology

Experience

Mr. Koziol possesses hands-on experience in the fields of Ecology, Biology and Wetland/Environmental Science. As an assistant ecologist, Mr. Koziol works closely with North Country Ecological Services Inc, (NCES) President Stephen P. George, PWS to identify, assess, and address environmental requirements needed to develop project sites. Some of these requirements include: federal and state wetland boundary delineations; assessment of wetland function and values; assessment of wetland and biological/ecological impacts; completion of endangered/threatened species surveys, completion of wildlife inventories; conducting ecological habitat reviews/assessments; and, a compilation of technical reports.

Work Experience

Assistant Ecologist

12/2021–Present North Country Ecological Services, Inc. *Gloversville, NY*

Responsible for assisting with the execution and completion of detailed site assessments and technical reports for ecological studies and permitting processes. Also responsible for the preparation of Federal and State wetland delineations and reports; flora/fauna and habitat inventories; endangered/threatened species evaluations and reports; and tree surveys.

Invasive Species Technician

9/2021–12/2021 Albany Pine Bush Preserve Commission *Albany, NY*

Responsible for invasive woody plant removal via mechanical and chemical methods. Other duties included collecting native seeds, equiptment and trail maintenance, and end of the day reports of progress to the lead crew supervisor.

Research Assistant

Seasonal: 2019-2021 The Research Foundation for SUNY *Brockport, NY*

Responsible for collecting and managing various data for two on-going research projects. Duties consisted of the installation of piezometers, sampling and processing ground water, vegetation surveys, collecting and trapping the Emerald Ash Borer (*Agrilus planipennis)*, and the removal of Slender False Brome (*Brachypodium sylvaticum*) via mechanical methods.

Federal Work Study

Seasonal: 2018-2021 SUNY Brockport *Brockport, NY*

Responsible for maintaining and preparing on-campus laboratories, data entry and management, and assisting graduate student thesis research by measuring water levels from piezometers at Lake Ontario costal wetland.

Additional Volunteering

- **Volunteer- Bog Turtle Survey, Dutchess County, NY**
  - Assisted in Bog Turtle (*Glyptemys muhlenbergii*) monitoring and surveying with NYSDEC and Jason Tesauro
- **Volunteer- Eastern Bluebird Nest Box Study, Brockport, NY** April-July 2021
  - Conducted bird surveys and monitored nest boxes located on the SUNY Brockport campus as a part of a long-term study on Eastern Bluebird (*Sialia sialis*) breeding biology.
- **Volunteer- Genesse Land Trust, Greece, NY** April 2021
  - Raised funds via 5k run/walk, attended a beach trash clean-up, and applied mulch at Island Cottage Woods Preserve
- **Volunteer- Plastic Lakes Project, Rochester, NY** October 2018
  - Attended a beach trash clean-up

Rachelle McKnight

RLA, ISA, CERP, WPIT
19 Albion Avenue Albany, NY 12209
518.903.3625
rachelle.mcknight@gmail.com

Professional Experience

07.2021 – Present **Andromeda Environmental, New York/Certified WBE**
Principal
- Landscape design/build operations
- Field inventory and forest community assessments
- Wetland delineation and landscape analysis
- Residential arboricultural and landscape consulting

11.2021 – 03.2023 **CDM Smith, New York**
Ecological Restoration Specialist
- Habitat restoration project design, management and monitoring
- Environmental permitting for state and federal agencies
- Biological assessment and wetland delineation
- Construction oversight and reporting for federal agencies

06.2016 - 07.2021 **Weston & Sampson, New York**
Landscape Architect
- Site and municipal scale landscape architecture
- Site analysis, forest/vegetation inventories, and systems thinking
- Land use, watershed management, and climate resilience planning
- Personnel management, construction documentation, and quality control

01.2008 – 05.2013 **HBO, Warner Bros., Hudson Scenic, New York**
Freelance Artist/Carpenter
- Original design and fine art production - film and television
- Scenery, prop, and pop-up display construction and installation
- Art, construction, scenic, and set dressing department production assistance

01.2002 – 12.2007 **Western Kentucky University, Kentucky**
Landscape Contractor
- Crew leader - campus-wide landscape installation and maintenance
- Academic department collaboration for native species cultivation and horticultural experiential learning opportunities

Focused Learning Work Experience

07.2021 – Present **More Trees Arborist Collective, New York**
Groundworker and technical arboricultural specialist

05.2015 – 08.2015 **Rewilding Europe, Bulgaria**
Field technician - wildlife reintroduction and landscape restoration

05.2014 – 08.2014 **US Forest Service, New York**
Field technician - urban forest ecosystem assessment

01.2006 – 12.2006 **Mammoth Cave National Park, Kentucky**
Field technician - landscape and habitat restoration

Rachelle McKnight

RLA, ISA, CERP, WPIT
19 Albion Avenue Albany, NY 12209
518.903.3625
rachelle.mcknight@gmail.com

Civil Service

07. 2023 - current **Capital Streets - New York**
- Board Member - complete streets infrastructure advocate in the Capital Region

10.2019 – current **Capital Roots/Friends of Tivoli - New York**
- Urban vegetable grower and animal care for community education
- Streambank stabilization & restoration project leader

Delaware Avenue Neighborhood Association - New York
- Board Member - Community activism, urban forest expansion & rehabilitation advocate

Education

08.2013 – 05.2016 Master of Landscape Architecture
SUNY College of Environmental Science and Forestry
05.2012 – 12.2013 Certificate of Graphic Design
CUNY Hunter College
08.2002 – 12.2007 Bachelor of Anthropology
Western Kentucky University

Registrations

Registered Landscape Architect: New York State LAR. 002995-01

Certified Ecological Restoration Practitioner: Society of Ecological Restoration No. 42068972

Certified Arborist: International Society of Arboriculture No. NY-6181A

Wetland Professional in Training: Society of Wetland Scientists

Security

Public Trust: Mid-Level, Department of Homeland Security (Approved May, 2022)

Language Skills

English: Native language French: Basic skills

Computer skills

Proficient in Microsoft Office applications - Excel, PowerPoint and Word
Proficient in Adobe Creative Suite applications - Photoshop, InDesign and Illustrator
Proficient in AutoCAD Standard and Civil 3D
Proficient in ArcGIS applications

Training

NSC First Aid, CPR & AED Course, 2023

OSHA 40-hour HAZWOPER Training,, 2022

OSHA 12-hour Construction Training, 2022

Wetland Delineation 40-hour Certificate, 2019

Appendix C

Correspondences with the USFWS & NYSDEC NHO

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
Email Address: fw5es_nyfo@fws.gov

In Reply Refer To:
Project Code: 2023-0003244
Project Name: Winston Farm

October 11, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

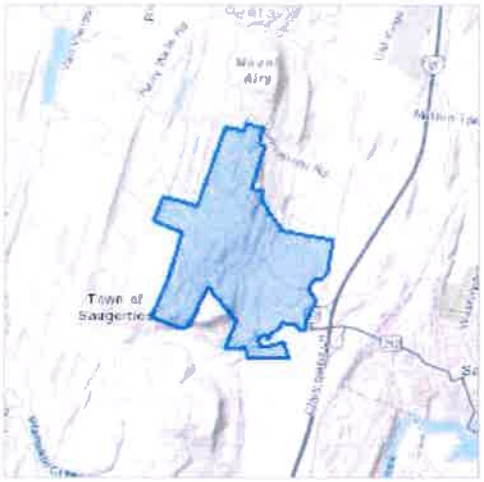
This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Project Code: 2023-0003244
Project Name: Winston Farm
Project Type: Commercial Development
Project Description: Recreational & Camping Facility.
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.09371565,-73.98481117816411,14z



Counties: Ulster County, New York

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency:	North Country Ecological Services, Inc.
Name:	Stephen George
Address:	25 West Fulton Street
Address Line 2:	Suite 3
City:	Gloversville
State:	NY
Zip:	12078
Email	capt.stephen1007@gmail.com
Phone:	5185276175

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 I F: (518) 402-8925
www.dec.ny.gov

January 10, 2023

Stephen P. George
North Country Ecological Services, Inc.
25 West Fulton Street
Gloversville, NY 12078

Re: Winston Farms
County: Ulster Town/City: Saugerties

Dear Stephen P. George:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 3 Office, Division of Environmental Permits, at dep.r3@dec.ny.gov.

Sincerely,

Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program

1083

New York Natural Heritage Program

Report on Rare Animals, Rare Plants, and Significant Natural Communities

The following rare plants, rare animals, and significant natural communities have been documented at your project site, or in its vicinity.

We recommend that potential impacts of the proposed project on these species or communities be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQR. Field surveys of the project site may be necessary to determine the status of a species at the site, particularly for sites that are currently undeveloped and may contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

The following animals, while not listed by New York State as Endangered or Threatened, are of conservation concern to the state, and are considered rare by the New York Natural Heritage Program.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*HERITAGE CONSERVATION STATUS*

Birds

Red-headed Woodpecker *Melanerpes erythrocephalus* Special Concern Imperiled in NYS

Breeding

Documented at the project site. 2020-07-30: The birds were observed in an area with dead trees along a river. There are fields on both side of the wet areas associated with the river where the birds have been observed foraging.. 16629

Butterflies

Northern Oak Hairstreak *Satyrium favonius ontario* Unlisted Imperiled in NYS

Documented within 1/2 mile south of the project site.1989-07-03: Weedy roadside field with mostly alien plant species. 695

Tawny Emperor *Asterocampa clyton* Unlisted Imperiled in NYS

Documented within 1/2 mile south of the project site. 1989-06-29: Roadside and driveway, shrubs. 3286

The following significant natural communities are considered significant from a statewide perspective by the NY Natural Heritage Program. They are either occurrences of a community type that is rare in the state, or a high quality example of a more common community type. By meeting specific, documented criteria, the NY Natural Heritage Program considers these community occurrences to have high ecological and conservation value. They have been documented at the project site.

COMMON NAME	*HERITAGE CONSERVATION STATUS*

Wetland/Aquatic Communities

Red Maple-Blackgum Swamp High Quality Occurrence of Rare Community Type

The swamp is a relatively small multipatch occurrence in good condition in a relatively large, but disturbed roadless area. 7484

Vernal Pool High Quality Occurrence of Uncommon Community Type

The pool is a relatively large complex in apparent good condition (but amphibian surveys are needed), within a large landscape. 9914

Upland/Terrestrial Communities

Chestnut Oak Forest High Quality Occurrence

This is a small occurrence that is in moderate condition within a moderate landscape. 3878

The following plants are listed as Endangered or Threatened by New York State, and/or are considered rare by the New York Natural Heritage Program, and are a vulnerable natural resource of conservation concern.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*HERITAGE CONSERVATION STATUS*
Vascular Plants			
Green Rock Cress	*Borodinia missouriensis*	Threatened	Imperiled in NYS

Documented at the project site. 2001-08-05: The population occurs on or near the top of a series of north-south running ledges in a semi-open, successional woodland of mixed hardwoods and conifers. 4257 10176

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org.

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org. For descriptions of all community types, go to www.nynhp.org/ecological-communities/ for Ecological Communities of New York State.

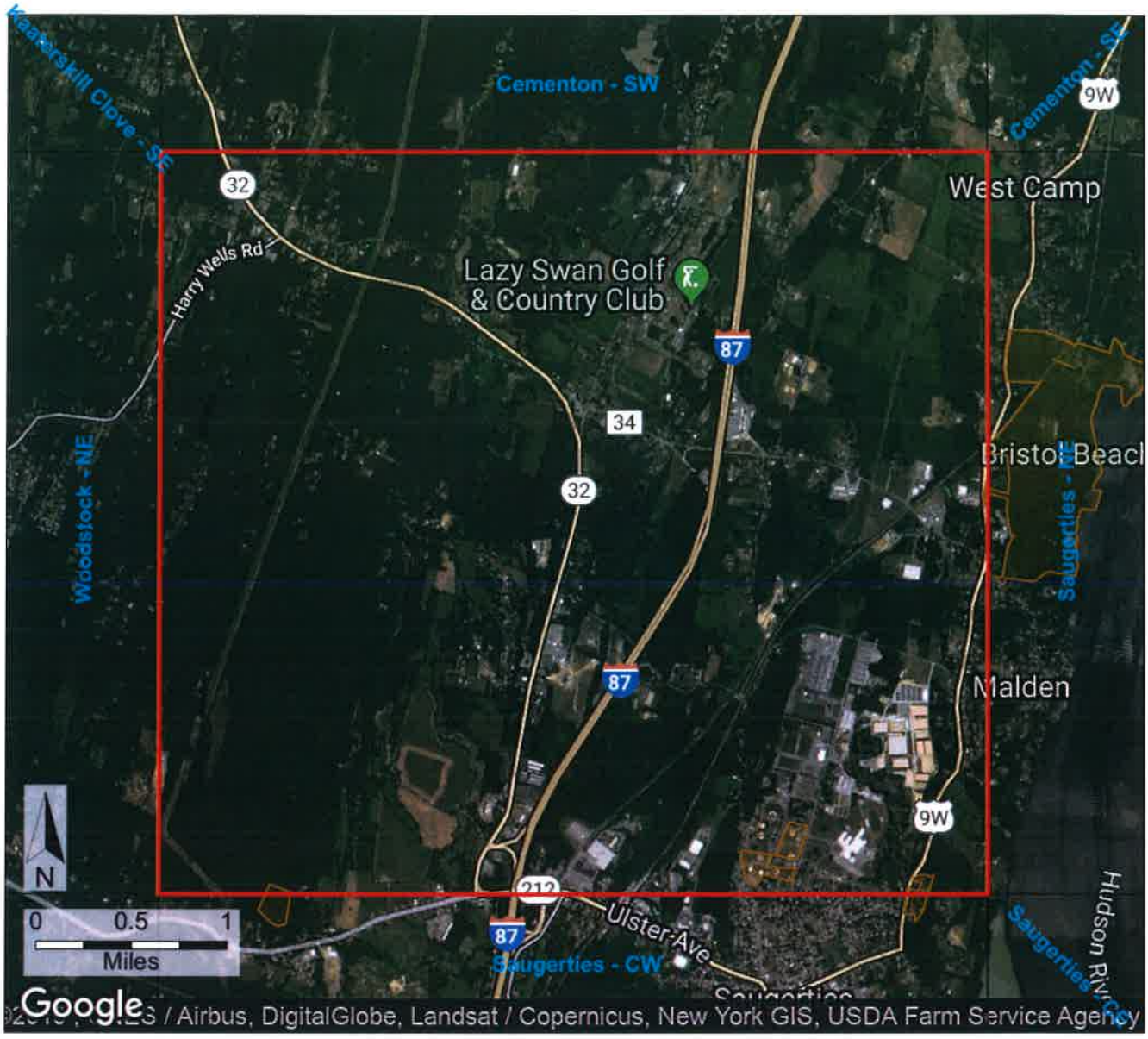
Appendix D

NYS Breeding Bird Atlas Information

Block Name: Saugerties - NW

Block Type: priority

eBird block page: https://ebird.org/atlasny/block/42073A8NW



42.125 N

42.083 N

-74 W

This is a Geospatial PDF

-73.938 W

Legend

- NY BBA III Block
- Public Lands

Map Datum: WGS84

NY BBA III

Saugerties NW

Change location

Ulster County, New York

Overview Recent visits

Status: **Complete ✓**

Block type: **Priority**

Effort hours (diurnal/nocturnal): **49.43 / 2.17**

Updated ~3 hr(s) ago.

155 Checklists | 24 Atlasers

	OBSERVED	POSSIBLE	PROBABLE	CONFIRMED	TOTAL
New York Breeding Bird Atlas 3	**27**	**22**	**18**	**44**	**84**

Species observed

SPECIES	BREEDING EVIDENCE	LOCATION	DATE
Black-billed Cuckoo	Probable (P)	3182 New York 32, Saugerties, New York, US (42.114, -73.973)	19 Jun 2023
Red-headed Woodpecker	Confirmed (FY)	3182 New York 32, Saugerties, New York, US (42.114, -73.973)	19 Jun 2023
Northern Flicker	Confirmed (ON)	3182 New York 32, Saugerties, New York, US (42.114, -73.973)	19 Jun 2023
Eastern Wood-Pewee	Possible (S)	3182 New York 32, Saugerties, New York, US (42.114, -73.973)	19 Jun 2023
Great Crested Flycatcher	Possible (S)	3182 New York 32, Saugerties, New York, US (42.114, -73.973)	19 Jun 2023
Tree Swallow	Probable (P)	3182 New York 32, Saugerties, New	19 Jun 2023

SPECIES	BREEDING EVIDENCE	LOCATION	DATE
		York, US (42.114, -73.973)	
White-breasted Nuthatch	Confirmed (FL)	3182 New York 32, Saugerties, New York, US (42.114, -73.973)	19 Jun 2023
Field Sparrow	Confirmed (CF)	3182 New York 32, Saugerties, New York, US (42.114, -73.973)	19 Jun 2023
Blue-winged Warbler	Possible (S)	3182 New York 32, Saugerties, New York, US (42.114, -73.973)	19 Jun 2023
Scarlet Tanager	Possible (S)	3182 New York 32, Saugerties, New York, US (42.114, -73.973)	19 Jun 2023
Savannah Sparrow	Possible (H)	Augusta Savage Road, Saugerties	13 May 2023
Orchard Oriole	Possible (S)	Augusta Savage Road, Saugerties	13 May 2023
Wood Duck	Observed	Augusta Savage Road, Saugerties	25 Nov 2022
Turkey Vulture	Observed	I-87 N, Saugerties US-NY 42.08984, -73.97017	31 Jul 2022
American Kestrel	Confirmed (FL)	Augusta Savage Road, Saugerties	30 Jul 2022
Eastern Meadowlark	Confirmed (FL)	Augusta Savage Road, Saugerties	30 Jul 2022
Mallard	Confirmed (FL)	Lazy Swan, Lauren Tice Rd	15 Jul 2022
Northern Rough-winged Swallow	Observed	Lauren Tice Rd.	4 Jul 2022
Mourning Dove	Probable (P)	Augusta Savage Road, Saugerties	2 Jul 2022
Great Blue Heron	Possible (H)	Augusta Savage Road, Saugerties	2 Jul 2022

SPECIES	BREEDING EVIDENCE	LOCATION	DATE
Northern Harrier	Observed	Augusta Savage Road, Saugerties	2 Jul 2022
Gray Catbird	Confirmed (CF)	Augusta Savage Road, Saugerties	2 Jul 2022
Northern Mockingbird	Confirmed (FL)	Augusta Savage Road, Saugerties	2 Jul 2022
Bobolink	Probable (N)	Augusta Savage Road, Saugerties	2 Jul 2022
Barn Swallow	Confirmed (NY)	Old Route 32	22 Jun 2022
Mute Swan	Confirmed (NY)	The Lazy Swan Golf	16 Jun 2022
Ruby-crowned Kinglet	Observed	Lauren Tice Rd.	18 Apr 2022
Hermit Thrush	Observed	Lauren Tice Rd.	18 Apr 2022
Rusty Blackbird	Observed	Lauren Tice Rd.	18 Apr 2022
Swamp Sparrow	Possible (S)	Augusta Savage Road, Saugerties	16 Apr 2022
Common Grackle	Confirmed (CN)	Augusta Savage Road, Saugerties	16 Apr 2022
Peregrine Falcon	Observed	The Lazy Swan Golf	2 Jan 2022
Yellow-billed Cuckoo	Possible (S)	Mount Airy Road Power Cut	11 Jul 2021
Prairie Warbler	Probable (S7)	Mount Airy Road Power Cut	11 Jul 2021
Tufted Titmouse	Confirmed (FL)	Mount Airy Road Power Cut	20 Jun 2021
Downy Woodpecker	Confirmed (FY)	Shear & Sacks Lodge Rd	20 Jun 2021
Indigo Bunting	Probable (A)	Sacks Lodge Rd - Wooded	20 Jun 2021
Ruby-throated Hummingbird	Probable (N)	Sacks Lodge Rd - Field	20 Jun 2021

SPECIES	BREEDING EVIDENCE	LOCATION	DATE
Willow Flycatcher	Probable (S7)	Lauren Tice Rd	19 Jun 2021
Common Yellowthroat	Probable (S7)	Lauren Tice Rd	19 Jun 2021
Yellow Warbler	Confirmed (CF)	Lauren Tice Rd	19 Jun 2021
Chimney Swift	Possible (H)	Sawyer Kill	19 Jun 2021
Green Heron	Possible (H)	Sawyer Kill	19 Jun 2021
Brown Thrasher	Confirmed (FY)	Sawyer Kill	19 Jun 2021
American Robin	Confirmed (CN)	Sawyer Kill	19 Jun 2021
House Finch	Confirmed (FY)	Sawyer Kill	19 Jun 2021
American Goldfinch	Probable (T)	Sawyer Kill	19 Jun 2021
American Redstart	Confirmed (CF)	Sawyer Kill	19 Jun 2021
Rose-breasted Grosbeak	Possible (H)	Sawyer Kill	19 Jun 2021
Fish Crow	Observed	Lauren Tice Rd.	13 Jun 2021
Ovenbird	Possible (S)	Lauren Tice Rd.	13 Jun 2021
Least Flycatcher	Possible (H)	Lauren Tice Rd	13 Jun 2021
European Starling	Confirmed (NY)	Augusta Savage Rd Fields	22 May 2021
Glossy Ibis	Observed	197 Malden Tpke, Saugerties US-NY (42.1043,-73.9465)	14 May 2021
Lawrence's Warbler (hybrid)	Possible (S)	166 Lauren Tice Road, Saugerties, New York, US (42.122, -73.948)	8 May 2021
Hooded Merganser	Probable (A)	Augusta Savage Rd Fields	8 May 2021
Bald Eagle	Probable (N)	Augusta Savage Rd Fields	8 May 2021

SPECIES	BREEDING EVIDENCE	LOCATION	DATE
Eastern Phoebe	Confirmed (CN)	Augusta Savage Rd, Saugerties US-NY 42.08676, -73.97592	11 Apr 2021
Northern Pintail	Observed	Augusta Savage Rd Fields	11 Feb 2021
American Tree Sparrow	Observed	Augusta Savage Rd Fields	4 Feb 2021
Great Horned Owl	Possible (H)	Sacks Lodge Rd	31 Dec 2020
Yellow-rumped Warbler	Observed	2769 NY-32, Saugerties US-NY 42.08813, -73.97497	18 Oct 2020
Red-breasted Nuthatch	Observed	12477, Saugerties US-NY 42.09244, -73.95360	8 Oct 2020
Brown Creeper	Observed	12477, Saugerties US-NY 42.09244, -73.95360	8 Oct 2020
Nashville Warbler	Observed	1 Tomsons Rd	21 Sep 2020
Cooper's Hawk	Possible (H)	Augusta Savage Rd Fields	31 Aug 2020
goose sp.	Observed	Augusta Savage Rd Fields	24 Aug 2020
Belted Kingfisher	Probable (P)	Augusta Savage Rd Fields	30 Jul 2020
Hairy Woodpecker	Probable (P)	Lauren Tice Rd	27 Jul 2020
Canada Goose	Possible (H)	Sawyer Kill	18 Jul 2020
Red-eyed Vireo	Confirmed (CF)	Sawyer Kill	18 Jul 2020
Brown-headed Cowbird	Confirmed (FL)	Sawyer Kill	18 Jul 2020
Northern Cardinal	Confirmed (CF)	Sawyer Kill	18 Jul 2020

SPECIES	BREEDING EVIDENCE	LOCATION	DATE
Eastern Kingbird	Confirmed (FY)	Lauren Tice Rd	15 Jul 2020
Song Sparrow	Confirmed (CN)	Lauren Tice Rd	15 Jul 2020
Blue-gray Gnatcatcher	Confirmed (FL)	1 Tomsons Rd	10 Jul 2020
Wood Thrush	Probable (S7)	1 Tomsons Rd	10 Jul 2020
House Wren	Confirmed (NY)	Lauren Tice & John Shults Rd	3 Jul 2020
Pine Warbler	Possible (S)	1 Tomsons Rd	29 Jun 2020
Warbling Vireo	Confirmed (FL)	Augusta Savage Rd Fields	29 Jun 2020
Common Raven	Possible (H)	Augusta Savage Rd Fields	29 Jun 2020
Chipping Sparrow	Confirmed (CN)	Augusta Savage Rd Fields	29 Jun 2020
Broad-winged Hawk	Observed	12477, Saugerties US-NY 42.10455, -73.97961	27 Jun 2020
Pileated Woodpecker	Confirmed (FL)	Sawyer Kill	27 Jun 2020
Blue Jay	Confirmed (CF)	Sawyer Kill	27 Jun 2020
woodpecker sp.	Possible (S)	Sacks Lodge Rd	20 Jun 2020
Cedar Waxwing	Confirmed (CN)	Sacks Lodge Rd	20 Jun 2020
American Woodcock	Confirmed (FL)	Lauren Tice Rd	20 Jun 2020
Eastern Towhee	Probable (P)	Lauren Tice Rd	20 Jun 2020
Red-winged Blackbird	Confirmed (FL)	HITS	15 Jun 2020
Baltimore Oriole	Confirmed (CF)	Augusta Savage Rd Fields	9 Jun 2020
Killdeer	Confirmed (FL)	HITS	3 Jun 2020

SPECIES	BREEDING EVIDENCE	LOCATION	DATE
Eastern Bluebird	Confirmed (CF)	451 Washington Avenue, Saugerties, New York, US (42.094, -73.948)	1 Jun 2020
Red-bellied Woodpecker	Confirmed (CF)	Sacks Lodge Rd	28 May 2020
American Crow	Confirmed (CF)	1 Tomsons Rd	26 May 2020
Red-tailed Hawk	Confirmed (NY)	Augusta Savage Rd Fields	18 May 2020
Carolina Wren	Confirmed (CF)	Augusta Savage Rd Fields	18 May 2020
Northern Parula	Observed	Augusta Savage Rd, Saugerties US-NY (42.0880,-73.9773)	16 May 2020
Chestnut-sided Warbler	Observed	1 Tomsons Rd	12 May 2020
Wilson's Warbler	Observed	1 Tomsons Rd	12 May 2020
Solitary Sandpiper	Observed	Augusta Savage Rd Fields	9 May 2020
White-crowned Sparrow	Observed	1 Tomsons Rd	4 May 2020
Black-throated Green Warbler	Possible (S)	1 Tomsons Rd	4 May 2020
White-throated Sparrow	Possible (S)	1 Tomsons Rd	27 Apr 2020
Osprey	Observed	4018 US-9W, Saugerties US-NY 42.10722, -73.93773	16 Apr 2020
dabbling duck sp.	Observed	Augusta Savage Rd Fields	16 Apr 2020
Black Vulture	Probable (C)	Augusta Savage Rd Fields	16 Apr 2020

SPECIES	BREEDING EVIDENCE	LOCATION	DATE
House Sparrow	Confirmed (CN)	1 Tomsons Rd	15 Apr 2020
Yellow-bellied Sapsucker	Observed	Augusta Savage Rd, Saugerties US-NY 42.08676, -73.97592	11 Apr 2020
Wild Turkey	Probable (C)	Augusta Savage Rd Fields	10 Apr 2020
Palm Warbler	Observed	Augusta Savage Rd Fields	8 Apr 2020
Accipiter sp.	Observed	Augusta Savage Rd Fields	20 Mar 2020
Black-capped Chickadee	Confirmed (NB)	1 Tomsons Rd	19 Mar 2020
Dark-eyed Junco	Possible (S)	1 Tomsons Rd	19 Mar 2020
crow sp.	Observed	1 Tomsons Rd	13 Mar 2020
American Black Duck	Observed	Great Vly	3 Mar 2020
Ring-necked Duck	Observed	Great Vly	3 Mar 2020

Checklists submitted within the last hour are not shown.

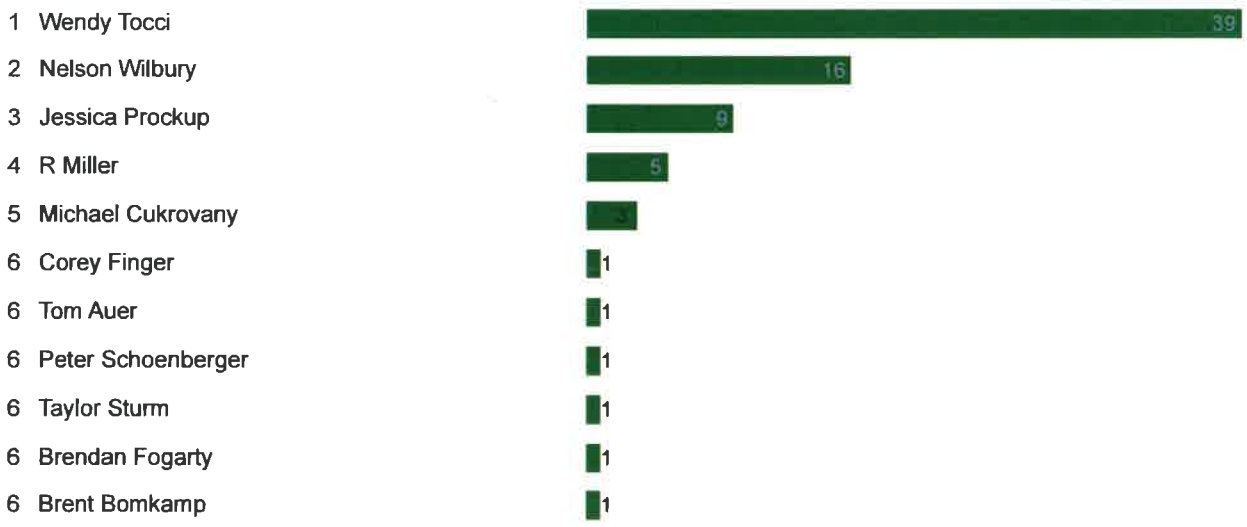
Recent visits

OBSERVER	DATE	SPECIES
Nelson Wilbury	19 Jun 2023	37
Brendan Fogarty	28 May 2023	1
Brent Bomkamp	28 May 2023	1
Taylor Sturm	28 May 2023	1
Pete Morris	28 May 2023	1
Wendy Tocci	13 May 2023	1
Jessica Prockup	13 May 2023	1
Wendy Tocci	13 May 2023	21
Jessica Prockup	13 May 2023	21
Richard Guthrie	11 May 2023	1

More recent visits

Top atlasers

BY CONFIRMED SPECIES



Top 100 atlasers...

Appendix E

NYSDEC Herpetological Atlas Information

NYSDEC Herp Atlas Project

This list identifies species of herpetofauna, or amphibians and reptiles as a group, taken from the New York State Department of Environmental Conservation (DEC) Herp Atlas Project. The DEC Herp Atlas Project conducted from 1990-2007, consists of reported occurrences of herpetofauna across New York State (NYS). This list is a compilation of all the reported occurrences within Ulster County, taken directly from the DEC Herp Atlas Project. This list also identifies a species' current conservation status within NYS.

Special concern – Any native species for which a welfare concern or risk of endangerment has been documented in New York State

*HPSGCN – High Priority Species of Greatest Conservation Need

Salamanders

Common Name	Scientific Name
Jefferson x Blue spotted salamander	(*Ambystoma jeffersonianum x laterale*) – Special concern
Spotted salamander	(*Ambystoma maculatum*)
Marbled salamander	(*Ambystoma opacum*) – Special concern
Northern dusky salamander	(*Desmognathus fuscus*)
Allegheny dusky salamander	(*Desmognathus ochrophaeus*)
Northern two-lined salamander	(*Eurycea bislineata*)
Northern spring salamander	(*Gyrinophilus p. porphyriticus*)
Four-toed salamander	(*Hemidactylium scutatum*) – *HPSGCN
Red-spotted newt	(*Notophthalmus v. viridescens*)
Northern redback salamander	(*Plethodon c. cinereus*)
Northern slimy salamander	(*Plethodon glutinosus*)
Northern red salamander	(*Pseudotriton r. ruber*)

Toads & Frogs

Common Name	Scientific Name
Northern cricket frog	(*Acris c. crepitans*) – Endangered
Eastern American toad	(*Bufo a. americanus*)
Fowler's toad	(*Bufo fowleri*)

Gray treefrog	(*Hyla versicolor*)
Northern spring peeper	(*Pseudacris c. crucifer*)
Bullfrog	(*Rana catesbeiana*)
Green frog	(*Rana clamitans melanota*)
Pickerel frog	(*Rana palustris*)
Northern leopard frog	(*Rana pipiens*)
Wood frog	(*Rana sylvatica*)

Turtles

Common Name	Scientific Name
Common snapping turtle	(*Chelydra a. serpentina*)
Painted turtle	(*Chrysemys picta*)
Spotted turtle	(*Clemmys guttata*) – Special concern
Wood turtle	(*Clemmys insculpta*) – Special concern
Bog turtle	(*Clemmys muhlenbergii*) – Endangered
Blanding's turtle	(*Emydoidea blandingii*) – Threatened
Common map turtle	(*Graptemys geographica*)
Eastern box turtle	(*Terrapene c. carolina*)
Common musk turtle	(*Stemotherus odoratus*)

Lizards & Snakes

Common Name	Scientific Name
Copperhead	(*Agkistrodon contortrix*)
Black racer	(*Coluber constrictor*)
Timber rattlesnake	(*Crotalus horridus*) – Threatened
Ringneck snake	(*Diadaophis punctatus*)
Rat snake	(*Elaphe alleganiensis*)
Five-lined skink	(*Eumeces fasciatus*)

Eastern hognose snake	(*Heterodon platirhinos*) – Special concern
Milk snake	(*Lampropeltis triangulum*)
Smooth green snake	(*Opheodrys vernalis*)
Northern water snake	(*Nerodia sipedon*)
Brown snake	(*Storeria dekayi*)
Redbelly snake	(*Storeria occiptomaculata*)
Ribbon snake	(*Thamnophis sauritus*)
Common garter snake	(*Thamnophis sirtalis*)

Appendix F

Site Photographs

Photograph 1) View looking east at the agricultural field. This photo was taken from a gravel road that extends northward from the paved Augusta Savage Road.

Photograph 2) View looking north at the agricultural fields found within the eastern portions of the site. This photo was taken from Augusta Savage Road.

Photograph 3) View looking north at Wetland A (the Beaver Kill) as it continues off-site.

Photograph 4) View looking east at Wetland A.

Photograph 5) View looking south at Wetland A to the east, and agricultural fields to the west.

Photograph 6) View looking west from the gravel road at the agricultural fields located within the northeastern portion of the site. The Beaver Kill is located to the east (right).

Photograph 7) View looking east at the Beaver Kill and Wetland A.

Photograph 8) View looking east at the Beaver Kill and Wetland A.

Photograph 9) View looking west at a linear drainage that is part of Wetland AA. This flows into the Beaver Kill.

Photograph 10) Photo showing the emergent ecological community of Wetland AA.

Photograph 11) View looking north at the agricultural fields located in the southeastern portion of the property.

Photograph 12) View looking east at the southern portion of Wetland R.

Photograph 13) View looking north at Wetland R.

Photograph 14) View looking west at the forested uplands located adjacent to Wetland R. This photo shows the typical forest and understory structure found within the central portions of the Site.

Photograph 15) Photo of the staging area for the property owner's logging equipment.

Photograph 16) Photo of a shagbark hickory found within the eastern portion of the site. This tree exhibits characteristic qualities that both Indiana and Northern Long-eared bats use as summer roosting habitat.

Photograph 17) View looking east from an upland ridge within the central portions of the property.

Photograph 18) View of Wetland F.

Photograph 19) Photo showing the berm that separates Wetland E (Right) and the northwestern portion of Wetland B (Left).

Photograph 20) View looking south at the northwestern portion of Wetland B. This photo was taken from the berm. Wetland E is located directly to the north.

Photograph 21) View looking south at a portion of Wetland B.

Photograph 22) Photo showing one of many logging roads located within the central portions of the site.

Photograph 23) View looking southeast at the perennial stream channel located within the south-central portion of the site.

Photograph 24) Photo showing the continuous flow of water within Wetland B. This photo was taken on January 5, 2023.

Photograph 25) View looking north at Wetland G.

Photograph 26) View looking south at southern portion Wetland B.

Photograph 27) Photo showing the dirt road that bisects the property. This road originates by an existing home and ends to the west of the utility line. This photo also shows the northwestern portion of Wetland B.

Photograph 28) Photo of Wetland HH.

Photograph 29) View looking south at Wetland A (the Beaver Kill).

Photograph 30) Photo of the southern portion of the Wetland AA (the Beaver Kill).

Photograph 31) View looking south at the southern portion of the Wetland AA (the Beaver Kill). This area is dominated by common reed.

Photograph 32) View looking northwest at the Palustrine scrub-shrub community found in Wetland F.

Photograph 33) View looking north at Wetland H.

Photograph 34) Photo of the vernal pool found within Wetland J.

Photograph 35) View looking north at Wetland H. This photo was taken from the southern-tip of the wetland boundary.

Photograph 36) View looking southwest at the open water pond portion of Wetland HH. This wetland area is located to the west of the utility line.

Photograph 37) View looking southeast at the open water portion of Wetland H.

Photograph 38) View looking south towards the forested portion of Wetland L.

Photograph 39) Photo of the rock pile found in the southwestern portion of Wetland L.

Photograph 40) View looking northwest at Wetland L.

Photograph 41) Photo of an old quarry pit that was found at the narrow spot that separates the larger portions of Wetland L. Evidence of mining and disturbance is apparent.

Photograph 42) View of the northern section Wetland S.

Photograph 43) Photo of the mowed lawn adjacent to the residential houses found in the central portion of the property.

Photograph 44) Photo of Wetland C.

Photograph 45) Photo showing the open water pond identified as Wetland E.

Photograph 46) Photo showing the drainage channel that flows through the forested uplands found in the northwestern portion of the property.

Photograph 47) Photo of a vernal pool located within Wetland I.

Photograph 48) View looking east from an upland ridge at the northern portion of Wetland H.

Photograph 49) Photo of the open meadow and sedge dominated portion of Wetland L.

Photograph 50) Photo of the hemlock-northern hardwood forest that is in the western portions of the property.

Photograph 51) View looking northwest at Wetland L.

Photograph 52) View looking at a quarry spoil that is found in the western portion of the Site. This old mine area is located near Wetland L.

Photograph 53) View looking south at the open water marsh area under the utility line.

Photograph 54) View looking south at the harvested agricultural hay field in the eastern portion of the property.

Photograph 55) View of the harvested agricultural hay field in the eastern portion of the property.

Photograph 1) Photo of a juvenile red headed woodpecker documented on October 20, 2023. This photo was taken in the emergent wetland community surrounding the Beaver Kill.

Photograph 2) Photo of an adult red-headed woodpecker observed on October 20, 2023.

Photograph 3) Photo of an immature bald eagle documented on April 8, 2023. The eagle was observed perched along the Beaver Kill.

Photograph 4) Photo of an American kestrel observed perched on a tree adjacent to the agricultural fields. This photo was taken on April 8, 2023.

Photograph 3) Photo of a pileated woodpecker observed on October 20, 2023.

Photograph 4) Photo showing a four-toed salamander in brumation.

Photograph 5) Photo showing the characteristic ventral area of the four-toed salamander (white with black spots).

Photograph 6) View of a spotted salamander egg mass.

Photograph 7) View of a gray treefrog found in Wetland C.

Photograph 8) Photo of a northern leopard frog observed within Wetland L.

Photograph 9) Photo of a northern slimy salamander documented on June 6, 2023.

Photograph 10) Photo of predated turtle eggs found under the utility lines in the western portions of the Site. This photo was taken on June 6, 2023.

Photograph 11) Spotted salamander egg masses observed in a vernal pool on March 30, 2023.

Photograph 12) Spotted salamander egg masses found in a vernal pool in Wetland G. This photo was taken on March 30, 2023.

Photograph 13) Freshwater mollusk shell found within the Beaver Kill on April 4, 2023.

Photograph 14) Photo of an eastern red-backed salamander documented on April 4, 2023.

Photograph 15) Photo showing spotted salamander egg masses attached to a branch found within a vernal pool Wetland P. This photo was taken on April 4, 2023.

Photograph 16) Photo showing spotted salamander egg masses observed within the vernal pool identified as Wetland Area C. This photo was taken on April 4, 2023.

Photograph 17) Photo of a white-tailed deer fawn observed on May 23, 2023.

Photograph 18) Photo of red efts observed adjacent to Wetland B on May 23, 2023.

Photograph 19) Photo of a spotted newt located within the open water of Wetland E, observed on May 23, 2023.

Photograph 20) Photo of a Baltimore oriole nest found on floor of the forested uplands in the western portion of the site.

Photograph 21) View looking south at an unoccupied Blue Heron nest found along the southwestern tree line of Wetland H.

Photograph 22) View looking north at a Blue Heron nest located within the southern portion of Wetland H. This is one of five unoccupied nests within the rookery.

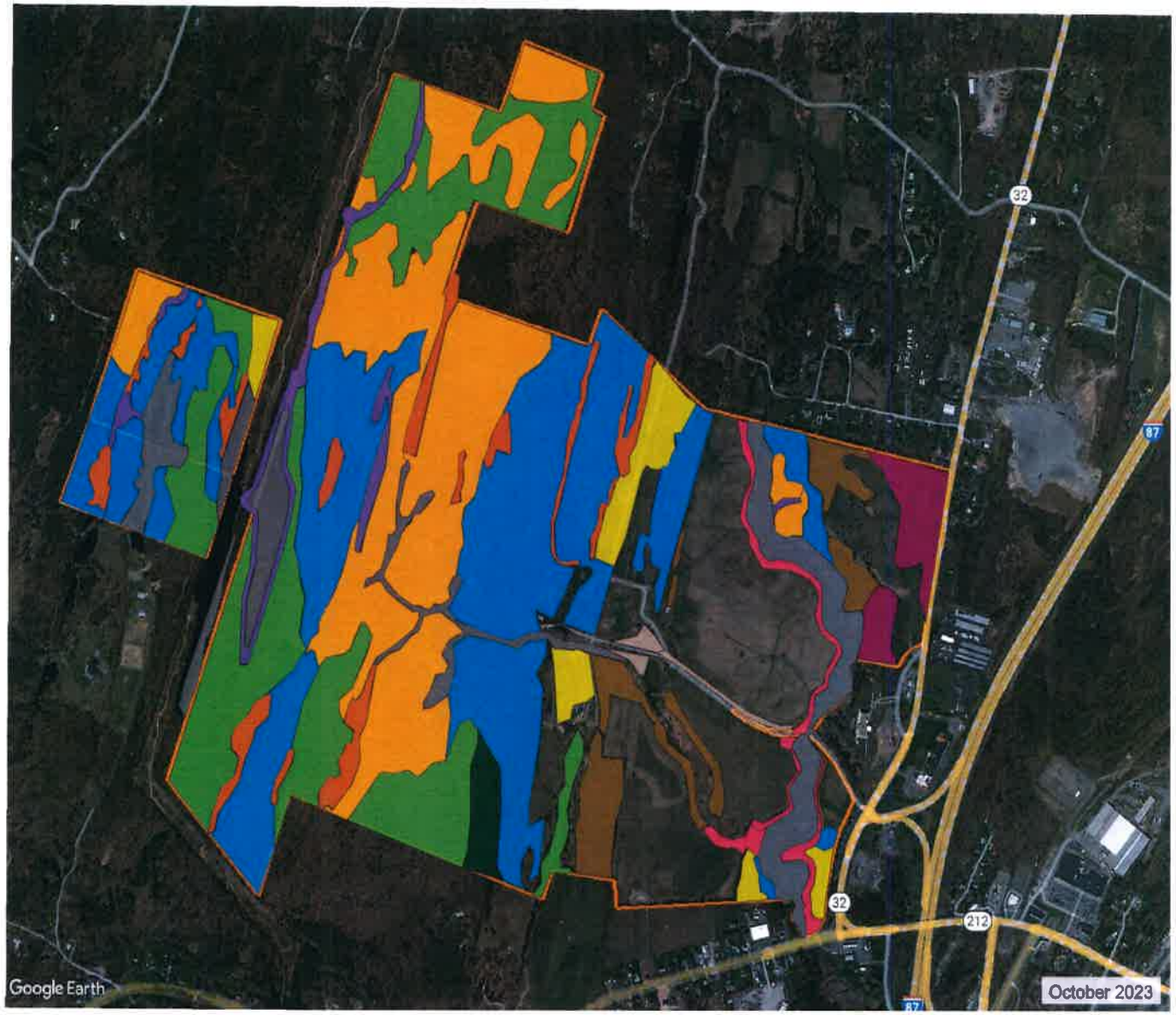
Photograph 23) Raccoon skull found within the interior of the site near Wetland I.

Photograph 24) Photo showing beaver activity along the edge Wetland H.

Appendix G

Forest Community Map

Winston Farms
Forest Community Map



- Appalachian Oak Hickory Forest
- Appalachian Oak Pine Forest
- Chestnut Oak Forest
- Hemlock-Hardwood Swamp
- Hemlock-Northern Hardwood Forest
- Red Maple - Blackgum Swamp
- Red Maple-Swamp White Oak Swamp
- Successional Red Cedar Woodland
- Sugar Maple Dominant
- Norway Maple Dominant
- Limestone Woodland
- Unforested Wetlands/Streams

See PDF of the Forest Community Map

Appendix H

Observed Flora and Fauna Species List

Fauna Inventory

This list identifies those species that were observed/identified on the site during the individual site visits conducted during the 2022 and 2023 field seasons. Most species were identified visually or by vocalization. Some were identified by their tracks, scat, or physical remains (bones, fur, feathers, etc.) and confirmed during the field visits.

Special concern – Any native species for which a welfare concern or risk of endangerment has been documented in New York State

*HPSGCN – High Priority Species of Greatest Conservation Need

Mammals

Common Name	Scientific Name
American beaver	(*Castor canadensis*)
Eastern coyote	(*Canis latrans*)
Opossum	(*Didelphis marsupialis*)
Porcupine	(*Erethizon dorsatum*)
Longtail weasel	(*Mustela frenata*)
Woodchuck	(*Marmota monax*)
Fisher	(*Martes americana*)
Eastern meadow vole	(*Microtus pennsylvanicus*)
Mink	(*Neovison vison*)
White-tail deer	(*Odocoileus virginianus*)
Deer mouse	(*Peromyscus maniculatus*)
Racoon	(*Procyon lotor*)
Grey squirrel	(*Sciurus carolinensis*)
Eastern cottontail	(*Sylvilagus floridanus*)
Eastern chipmunk	(*Tamias striatus*)
Gray fox	(*Urocyon cinereoargenteus*)
Black bear	(*Ursus americanus*)
Red fox	(*Vulpes vulpes*)

Birds

Common Name	Scientific Name
Family: Anatidae – Ducks, Geese, and Waterfowl	
Green-winged teal	(*Anas carolinesis*)
American black duck	(*Anas rubripes*) – *HPSGCN
Mallard	(*Anas platyrhynchos*)
Wood duck	(*Aix sponsa*)
Canada goose	(*Branta canadensis*)
Hooded merganser	(*Lophodytes cucullatus*)

Family: Phasianidae – Pheasants, Grouse, and Allies

Ruffed grouse	(*Bonasa umbellus*)
Wild turkey	(*Meleagris gallopavo*)

Family: Columbidae – Pigeons and Doves

Rock dove	(*Columba livia*)
Mourning dove	(Zenaida macroura)

Family: Cuculidae - Cuckoos

Black-billed cuckoo	(*Coccyzus erythropthalmus*)

Family: Scolopacidae – Sandpipers and Allies

American woodcock	(*Scolopax minor*)

Family: Charadriidae – Plovers and Lapwings

Killdeer	(*Charadrius vociferus*)

Family: Ardeidae – Herons, Egrets, and Bitterns

Great blue heron	(*Ardea herodias*)
Green heron	(*Butorides virescens*)

Family: Cathartidae – New World Vultures

Turkey vulture	(*Cathartes aura*)
Black vulture	(*Coragyps atratus*)

Family: Accipitridae – Hawks, Eagles, and Kites

Sharp-shinned hawk	(*Accipiter striatus*) – Special Concern
Northern goshawk	(*Accipiter gentilis*) – Special Concern
Red-tailed hawk	(*Buteo jamaicensis*)
Broad-winged hawk	(*Buteo platypterus*)
Red-shouldered hawk	(*Buteo lineatus*) – Special Concern
Bald eagle	(*Haliaeetus leucocephalus*) – Threatened

Family: Alcedinidae – Kingfishers

Belted kingfisher	(*Megaceryle alcyon*)

Family: Picidae – Woodpeckers

Northern flicker	(*Colaptes auratus*)
Pileated woodpecker	(*Dryocopus pileatus*)
Downy woodpecker	(*Dryobates pubescens*)
Hairy woodpecker	(*Dryobates villosus*)
Red-bellied woodpecker	(*Melanerpes carolinus*)
Red-headed woodpecker	(*Melanerpes erythrocephalus*) – Special Concern
Yellow-bellied sapsucker	(*Sphyrapicus varius*)

Family: Falconidae – Falcons and Caracaras

American kestrel	(*Falco sparverius*)

Family: Tyrannidae – Tyrant Flycatchers

Eastern wood-pewee	(*Contopus virens*)
Great crested flycatcher	(*Myiarchus crinitus*)
Eastern phoebe	(*Sayornis phoebe*)
Eastern kingbird	(*Tyrannus tyrannus*)

Family: Vireonidae – Vireos, Shrike-Babblers, and Erporins

Red-eyed vireo	(*Vireo olivaceus*)
Philadelphia vireo	(*Vireo philadelphicus*)

Family: Corvidae – Crows, Jays, and Magpies

American crow	(*Corvus brachyrhynchos*)
Common raven	(*Cornus corax*)
Blue jay	(*Cyanocitta cristata*)

Family: Paridae – Tits, Chickadees, and Titmice

Tufted titmouse	(*Baeolophus bicolor*)
Black-capped chickadee	(*Poecile atricapillus*)

Family: Hirundinidae – Swallows

Tree swallow	(*Tachycineta bicolor*)

Family: Regulidae – Kinglets

Ruby-crowned kinglet	(*Corthylio calendula*)
Golden-crowned kinglet	(*Regulus satrapa*)

Family: Sittidae – Nuthatches

Red-breasted nuthatch	(*Sitta canadensis*)
White breasted nuthatch	(*Sitta carolinensis*)

Family: Certhiidae – Treecreepers

Brown creeper	(*Certhia americana*)

Family: Polioptilidae – Gnatcatchers

Blue-gray gnatcatcher	(*Polioptila caerulea*)

Family: Troglodytidae – Wrens

Carolina wren	(*Thryothorus ludovicianus*)
House wren	(*Troglodytes aedon*)

Family: Sturnidae – Starlings

European starling	(*Sturnus vulgaris*)

Family: Mimidae – Mockingbirds and Thrashers

Gray catbird	(*Dumetella carolinensis*)
Northern mocking bird	(*Mimus polyglottos*)

Family: Turdidae – Thrushes and Allies

Veery	(*Catharus fuscescens*)
Hermit thrush	(*Catharus guttatus*)
Wood thrush	(*Hylocichla mustelina*)
Eastern bluebird	(*Sialia sialis*)
American Robin	(*Turdus migratorius*)

Family: Bombycillidae – Waxwings

Cedar waxwing	(*Bombycilla cedrorum*)

Family: Passeridae – Old World Sparrows

House sparrow	(*Passer domesticus*)

Family: Fringillidae – Finches, Euphonias, and Allies

Purple finch	(*Haemorhous purpureus*)
House finch	(*Haemorhous mexicanus*)
Indigo bunting	(*Passerina cyanea*)
American goldfinch	(*Spinus tristis*)

Family: Passerellidae – New World Sparrows

Dark-eyed junco	(*Junco hyemalis*)
Swamp sparrow	(*Melospiza georgiana*)
Song sparrow	(*Melospiza melodia*)
Fox sparrow	(*Passerella iliaca*)
Savannah sparrow	(*Passerculus sandwichensis*)
Eastern towhee	(*Pipilo erythrophthalmus*)
Vesper sparrow	(*Pooecetes gramineus*) – Special Concern
Chipping sparrow	(*Spizella passerina*)
Field sparrow	(*Spizella pusilla*)
American tree sparrow	(*Spizelloides arborea*)
White-throated sparrow	(*Zonotrichia albicollis*)

Family: Icteridae -Troupials and Allies

Red-winged blackbird	(*Agelaius phoencieus*)
Bobolink	(*Dolichonyx oryzivorus*) – *HPSGCN
Brown-headed cowbird	(*Molothrus ater*)
Common grackle	(*Quiscalus quiscula*)
Eastern meadowlark	(*Sturnella magna*) – *HPSGCN

Family: Parulidae – New World Warblers

Common yellowthroat	(*Geothlypis trichas*)
Nashville warbler	(*Leiothlypis ruficapilla*)
Black-and-white warbler	(*Mniotilta varia*)
Ovenbird	(*Seiurus aurocapilla*)
Yellow-rumped warbler	(*Setophaga coronata*)
Blackburnian warbler	(*Setophaga fusca*)
Palm warbler	(*Setophaga palmarum*)
Pine warbler	(*Setophaga pinus*)
Black-throated green warbler	(*Setophaga virens*)

Family: Cardinalidae – Cardinals and Allies

Northern cardinal	(*Cardinalis cardinalis*)
Scarlet tanager	(*Piranga olivacea*)

Family: Strigidae – Owls

Great horned owl	(*Bubo virginianus*)
Eastern screech owl	(*Megascops asio*)
Barred owl	(*Strix varia*)

Amphibians

Common Name	Scientific Name
Spotted salamander	(*Ambystoma maculatum*)
American toad	(*Anaxyrus americanus)*
Gray tree frog	(*Dryopteris versicolor*)
Four-toed salamander	(*Hemidactylium scutatum*) – *HPGCN
Green frog	(*Lithobates clamitans*)
Northern leopard frog	(*Lithobates pipiens*)
Red spotted newt & Red eft	(*Notophthalmus viridescens*)
Eastern red-backed salamander	(*Plethodon cinereus*)
Northern slimy salamander	(*Plethodon glutinosus*)
Spring peeper	(*Pseudacris crucifer*)
Wood frog	(*Rana sylvatica*)

Reptiles

Common Name	Scientific Name
Painted turtle	(*Chrysemys picta*)
Snapping turtle	(*Chelydra serpentina*)
Milk snake	(*Lampropeltis Triangulum*)
Northern water snake	(*Nerodia sipedon*)
Eastern Garter snake	(*Thamnophis sirtalis*)

Aquatic vertebrates

Common Name	Scientific Name
Black-nosed dace	(*Rhinichthys atratulus*)
Creek chub	(*Semolitus atromaculatus*)

Flora Inventory

This list identifies those species of vegetation that were observed on the property during the individual site visits conducted during the 2022 and 2023 field seasons.

Trees

Common Name	Scientific Name
Norway maple	(*Acer platanoides*)
Sugar maple	(*Acer saccharum*)
Red maple	(*Acer rubrum*)
Tree-of-heaven	(*Ailanthus altissima*)
Black birch	(*Betula lenta*)
Gray birch	(*Betula populifolia*)
Musclewood	(*Carpinus caroliniana*)
Bitternut hickory	(*Carya cordiformis*)
Shagbark hickory	(*Carya ovata*)
Mockernut hickory	(*Carya tomentosa*)
Northern catalpa	(*Catalpa speciosa*)
White ash	(*Fraxinus americana*)
Green ash	(*Fraxinus pennsylvanica*)
Eastern black walnut	(*Juglans nigra*)
Eastern red cedar	(*Juniperus virginiana*)
Blackgum	(*Nyssa sylvatica)*
American hophornbeam	(*Ostrya virginiana*)
Red pine	(*Pinus resinosa*)
White pine	(*Pinus strobus*)
Bigtooth aspen	(*Populus grandidentata*)
Quaking aspen	(*Populus tremuloides*)
Black cherry	(*Prunus serotina*)
White oak	(*Quercus alba*)
Swamp white oak	(*Quercus bicolor*)
Scarlet oak	(*Quercus coccinea*)
Chestnut oak	(*Quercus montana*)
Northern red oak	(*Quercus rubra*)
Pin oak	(*Quercus palustris*)
Chestnut oak	(*Quercus montana*)
Black locust	(*Robina pseudoacacia*)
Eastern hemlock	(*Tsuga canadensis*)
American elm	(*Ulmus americana*)

Shrubs

Common Name	Scientific Name
Gray alder	(*Alnus incana*)
Striped maple	(*Acer pensylvanicum*)
Japanese barberry	(*Berberis thunbergii*)
Buttonbush	(*Cephalanthus occidentalis*)
Silky dogwood	(*Cornus amomum)*
Flowering dogwood	(*Cornus florida*)
Gray dogwood	(*Cornus racemosa)*
Red-osier dogwood	(*Cornus sericea)*
Autumn olive	(*Elaeagnus umbellata*)
Black huckleberry	(*Gaylussacia baccata*)
American witch-hazel	(*Hamamelis virginiana*)
Mountain laurel	(*Kalmia latifolia*)
Tatarian honeysuckle	(*Lonicera tatarica*)
Common buckthorn	(*Rhamnus cathartica*)
Staghorn sumac	(*Rhus typhina*)
Carolina rose	(*Rosa carolina*)
Multiflora rose	(*Rosa multiflora*)
Elderberry	(*Sambucus canadensis*)
Sassafras	(*Sassafras albidum*)
Lowbush blueberry	(*Vaccinium angustifolium*)
High-bush blueberry	(*Vaccinium corymbosum*)
Hillside blueberry	(*Vaccinium pallidum*)
Tall deerberry	(*Vaccinium stamineum*)
Northern wild raisin	(*Viburnum cassinoides*)
Arrowwood viburnum	(*Viburnum recognitum*)

Herbaceous Vegetation

Common Name	Scientific Name
Common yarrow	(*Achillea millefolium*)
Sweet flag	(*Acorus calamus*)
Garlic mustard	(*Alliaria petiolata*)
Hog peanut	(*Amphicarpaea bracteata*)
Broomsedge bluestem	(*Andropogon virginicus*)
Agrimony	(*Agrimonia* spp.)
Spreading dogbane	(*Apocynum androsaemifolium*)
Tower rockcress	(*Arabis glabra*)
Wild sarsaparilla	(*Aralia nudicaulis*)
Common mugwort	(*Artemisia vulgaris*)
Common milkweed	(*Asclepias syriaca*)
Watershield	(*Brasenia schreberi*)
Nodding beggarticks	(*Bidens cernua*)
Devil's beggarticks	(*Bidens frondosa*)

False nettle	(*Bohemeria cylindrica*)
Rock harlequin	(*Capnoides sempervirens*)
Eastern woodland sedge	(*Carex blanda*)
Lake sedge	(*Carex lacustris*)
Hop sedge	(*Carex lupulina*)
Shallow sedge	(*Carex lurida*)
Pennsylvania sedge	(Carex pensylvanica)
Tussock sedge	(*Carex stricta*)
Fox sedge	(*Carex vulpinoidea*)
Spotted knapweed	(*Centaurea stoebe*)
Spotted water hemlock	(*Cicuta maculata*)
Sweet fern	(*Comptonia peregrina*)
Orchard grass	(*Dactylis glomerata*)
Wild carrot	(*Daucus carota*)
Swamp loosestrife	(*Decodon verticillatus*)
Eastern hay-scented fern	(*Sitobolium punctilobulum*)
Threeway sedge	(*Dulichium arundinaceum*)
Intermediate wood fern	(*Dryopteris intermedia*)
Wood fern	(*Dryopteris* spp.)
Barnyard grass	(*Echinochloa crus-galli*)
American burnweed	(*Erechtites hieraciifolius*)
Horseweed	(*Erigeron canadensis*)
White trout lily	(*Erythronium americanum*)
Flat-top goldentop	(*Euthamia graminifolia*)
Sticky willy	(*Galium aparine*)
Woodruff	(*Galium odoratum*)
Wild geranium	(*Geranium maculatum*)
Thinleaf sunflower	(*Helianthus decapetalus*)
Dame's rocket	(*Hesperis matronalis*)
Azure bluet	(*Houstonia caerulea*)
St. John's wort	(*Hypericum perforatum*)
Jewelweed	(*Impatiens capensis*)
Yellow flag iris	(*Iris pseudacorus*)
Blue flag iris	(*Iris versicolor*)
Soft rush	(*Juncus effusus*)
Canadian wood nettle	(*Laportea canadensis*)
Small duckweed	(*Lemna minor*)
Oxeye daisy	(*Leucanthemum vulgare*)
Water purslane	(*Ludwigia palustris*)
Purple loosestrife	(*Lythrum salicaria*)
Moneywort	(*Lysimachia nummularia*)
Alfalfa	(*Medicago sativa*)
Square-stemmed monkeyflower	(*Mimulus ringens*)
Partridge berry	(*Mitchella repens*)
Nimbleweed	(*Muhlenbergia schreberi*)
True forget-me-not	(*Myosotis scorpioides*)

Water cress	(*Nasturtium officinale*)
White water lily	(*Nymphaea odorata*)
Sensitive fern	(*Onoclea sensibilis*)
Cinnamon fern	(*Osmunda cinnamomea*)
Royal fern	(*Osmunda regalis*)
Deertongue grass	(*Dichanthelium clandestinum*)
Foxglove beardtongue	(*Penstemon digitalis*)
Ditch stonecrop	(*Penthorum sedoides*)
Water smartweed	(*Persicaria amphibia*)
Halberd-leaf tearthumb	(*Persicaria arifolia*)
Swamp smartweed	(*Persicaria amphibia*)
Tearthumb	(*Persicaria sagittata*)
Reed canary grass	(*Phalaris arundinacea*)
Common reed	(*Phragmites australis*)
Timothy	(*Phleum pratense*)
Garden phlox	(*Phlox paniculata*)
Pokeweed	(*Phytolacca americana*)
Kentucky bluegrass	(*Poa pratensis*)
Christmas fern	(*Polystichum acrostichoides*)
Dwarf cinquefoil	(*Potentilla canadensis*)
Rattlesnake hawkweed	(*Hieracium venosum*)
Common plantain	(*Plantago major*)
Fragrant cudweed	(*Pseudognaphalium obtusifolium*)
Meadow buttercup	(*Ranunculus acris*)
Blackberry	(*Rubus allegheniensis*)
Northern dewberry	(*Rubus flagellaris*)
Red raspberry	(*Rubus idaeus*)
Dark green bulrush	(*Scirpus atrovirens*)
Woolgrass	(*Scirpus cyperinus*)
Tall (Late) goldenrod	(*Solidago altissima*)
Canada goldenrod	(*Solidago canadensis*)
Giant goldenrod	(*Solidago gigantea*)
Wrinkleleaf goldenrod	(*Solidago rugosa*)
Goldenrods	(*Solidago* spp.)
Slender goldenrod	(*Solidago tenuifolia*)
American bur-reed	(*Sparganium americanum*)
Sphagnum moss	(*Sphagnum* spp.)
Giant duckweed	(*Spirodela polyrhiza*)
Calico aster	(*Symphyotrichum lateriflorum*)
Skunk cabbage	(*Symplocarpus foetidus*)
Common dandelion	(*Taraxacum offincinale*)
New York fern	(*Thelypteris noveboracensis*)
Red clover	(*Trifolium pratense*)
White clover	(*Trifolium repens*)
Red trillium	(*Trillium erectum*)
Cattail	(*Typha latifolia*)

Common nettle	(*Urtica dioica*)
Green false hellebore	(*Veratrum viride*)
Blue vervain	(*Verbena hastata*)
Common mullein	(*Verbascum thapsus*)
Yellow vetch	(*Vicia grandiflora*)
Common periwinkle	(*Vinca minor*)
Common blue violet	(*Viola sororia*)
Barren strawberry	(*Waldsteinia fragarioides*)

Vines

Common Name	Scientific Name
Oriental bittersweet	(*Celastrus orbiculatus*)
Virginia creeper	(*Parthenocissus quinquefolia*)
Roundleaf greenbrier	(*Smilax rotundifolia*)
Poison ivy	(*Toxicodendron radicans*)
Riverbank grape	(*Vitis riparia*)
Grape	(*Vitis* spp.)

Appendix I

Fauna Associated Habitats List

Winston Farm

Fauna Inventory and Associated Ecological Community Types

This information identifies both the observed and anticipated species of wildlife associated with the Winston Farm Properties and correlates them with the existing ecological communities that were documented on the Site.

LEGEND

COF	Chestnut oak forest
HNF	Hemlock-northern hardwood forest
SNH	Successional northern hardwoods
SRW	Successional red cedar woodlands
SOF	Successional old field
MLT	Mowed lawn with trees
MF	Mowed field
URP	Unpaved road/path
CFC	Cropland/field crops
AOP	Appalachian oak-pine forest
AOH	Appalachian oak-hickory forest
PFO	Palustrine forested wetland
PSS	Palustrine scrub-shrub wetland
PEM	Palustrine emergent wetland
VP	Vernal pool
OWP	Open water pond
PS	Perennial stream
IS	Intermittent stream

Mammals:

Common Name	Scientific Name	Associated Habitat(s)
Eastern coyote	(*Canis latrans*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
American beaver	(*Castor canadensis*)	OWP, PEM, PFO, PSS
Opossum	(*Didelphis marsupialis*)	CFC, URP, MLT
Porcupine	(*Erethizon dorsatum*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Longtail weasel	(*Mustela frenata*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Woodchuck	(*Marmota monax*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Fisher	(*Martes americana*)	PS, PEM, OWP
Eastern meadow vole	(*Microtus pennsylvanicus*)	PEM, SOF, MF, MLT
Mink	(*Neovison vison*)	PEM, PSS, PS, OWP
White-tail deer	(*Odocoileus virginianus*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Deer mouse	(*Peromyscus maniculatus*)	SOF, PEM, CFC
Racoon	(*Procyon lotor*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Grey squirrel	(*Sciurus carolinensis*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Eastern cottontail	(*Sylvilagus floridanus*)	SOF, COF, MLT, MF
Eastern chipmunk	(*Tamias striatus*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Gray fox	(*Urocyon cinereoargenteus*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Black bear	(*Ursus americanus*)	AOP, AOH, HNH

Red fox	(*Vulpes vulpes*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH

Birds:

Family: Anatidae – Ducks, Geese, and Waterfowl

Green-winged teal	(*Anas carolinesis*)	OWP, PS
American black duck	(*Anas rubripes*)	OWP, PS
Mallard	(*Anas platyrhynchos*)	OWP, PS
Wood duck	(*Aix sponsa*)	OWP, PS
Canada goose	(*Branta canadensis*)	OWP, PS
Hooded merganser	(*Lophodytes cucullatus*)	OWP, PS

Family: Phasianidae – Pheasants, Grouse, and Allies

Ruffed grouse	(*Bonasa umbellus*)	HNH, CFC, SNH, SRW
Wild turkey	(*Meleagris gallopavo*)	CFC, SOF, MF

Family: Columbidae – Pigeons and Doves

Mourning dove	(Zenaida macroura)	MLT, ML, SOF
Rock dove	(*Columba livia*)	MLT, ML, SOF

Family: Cuculidae - Cuckoos

Black-billed cuckoo	(*Coccyzus erythropthalmus*)	COF, HNF, SNH, SRW, AOH SOF, MLT, MF, URP, CFC, AOP

Family: Scolopacidae – Sandpipers and Allies

American woodcock	(*Scolopax minor*)	COF, HNF, SNH, SRW, AOH SOF, MLT, MF, URP, CFC, AOP

Family: Charadriidae – Plovers and Lapwings

Killdeer	(*Charadrius vociferus*)	SOF, CFC

Family: Ardeidae – Herons, Egrets, and Bitterns

Great blue heron	(*Ardea herodias*)	PEM, OWP
Green heron	(*Butorides virescens*)	PEM, OWP

Family: Cathartidae – New World Vultures

Black vulture	(*Coragyps atratus*)	COF, HNF, SNH, SRW, AOH SOF, MLT, MF, URP, CFC, AOP
Turkey vulture	(*Cathartes aura*)	COF, HNF, SNH, SRW, AOH SOF, MLT, MF, URP, CFC, AOP

Family: Accipitridae – Hawks, Eagles, and Kites

COF, HNF, SNH, SRW, AOH
SOF, MLT, MF, URP, CFC, AOP

Sharp-shinned hawk	(*Accipiter striatus*)
Red-tailed hawk	(*Buteo jamaicensis*)
Broad-winged hawk	(*Buteo platypterus*)
Red-shouldered hawk	(*Buteo lineatus*)
Bald eagle	(*Haliaeetus leucocephalus*)

Family: Alcedinidae – Kingfishers

Belted kingfisher	(*Megaceryle alcyon*)	OWP, PS, PFO, PSS, PEM

Family: Picidae – Woodpeckers

Northern flicker	(*Colaptes auratus*)	PFO, PSS, PS, OWP
Pileated woodpecker	(*Dryocopus pileatus*)	PFO, PSS, PEM
Downy woodpecker	(*Dryobates pubescens*)	PFO
Hairy woodpecker	(*Dryobates villosus*)	PFO
Red-bellied woodpecker	(*Melanerpes carolinus*)	PFO
Red-headed woodpecker	(*Melanerpes erythrocephalus*)	PEM
Yellow-bellied sapsucker	(*Sphyrapicus varius*)	

Family: Falconidae – Falcons and Caracaras

American kestrel	(*Falco sparverius*)	COF, HNF, SNH, SRW, AOH, SOF, MLT, MF, URP, CFC, AOP

Family: Tyrannidae – Tyrant Flycatchers		COF, HNF, SNH, SRW, AOH SOF, MLT, MF, URP, CFC, AOP
Eastern wood-pewee	(*Contopus virens*)	
Great crested flycatcher	(*Myiarchus crinitus*)	
Eastern phoebe	(*Sayornis phoebe*)	
Eastern kingbird	(*Tyrannus tyrannus*)	
Family: Vireonidae – Vireos, Shrike-Babblers, and Erporins		
Red-eyed vireo	(*Vireo olivaceus*)	COF, HNF, SNH, SRW, AOH, SOF, MLT, MF, URP, CFC, AOP
Philadelphia vireo	(*Vireo philadelphicus*)	COF, HNF, SNH, SRW, AOH, SOF, MLT, MF, URP, CFC, AOP
Family: Corvidae – Crows, Jays, and Magpies		
Blue jay	(*Cyanocitta cristata*)	SOF, SRW
Common raven	(*Cornus corax*)	CFC, SOF
American crow	(*Corvus brachyrhynchos*)	CFC, SOF
Family: Paridae – Tits, Chickadees, and Titmice		
Tufted titmouse	(*Baeolophus bicolor*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Black-capped chickadee	(*Poecile atricapillus*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Family: Hirundinidae – Swallows		
Tree swallow	(*Tachycineta bicolor*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Family: Regulidae – Kinglets		
Ruby-crowned kinglet	(*Corthylio calendula*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Golden-crowned kinglet	(*Regulus satrapa*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH

Family: Sittidae – Nuthatches

Red-breasted nuthatch	(*Sitta canadensis*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
White breasted nuthatch	(*Sitta carolinensis*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH

Family: Certhiidae – Treecreepers

Brown creeper	(*Certhia americana*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH

Family: Polioptilidae – Gnatcatchers

Blue-gray gnatcatcher	(*Polioptila caerulea*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH

Family: Troglodytidae – Wrens

Carolina wren	(*Thryothorus ludovicianus*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
House wren	(*Troglodytes aedon*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH

Family: Sturnidae – Starlings

European starling	(*Sturnus vulgaris*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH

Family: Mimidae – Mockingbirds and Thrashers

Gray catbird	(*Dumetella carolinensis*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Northern mocking bird	(*Mimus polyglottos*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH

Family: Turdidae – Thrushes and Allies

Veery	(*Catharus fuscescens*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Hermit thrush	(*Catharus guttatus*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Wood thrush	(*Hylocichla mustelina*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH

Eastern bluebird	(*Sialia sialis*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
American Robin	(*Turdus migratorius*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Family: Bombycillidae – Waxwings		
Cedar waxwing	(*Bombycilla cedrorum*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Family: Passeridae – Old World Sparrows		
House sparrow	(*Passer domesticus*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Family: Fringillidae – Finches, Euphonias, and Allies		
Purple finch	(*Haemorhous purpureus*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
House finch	(*Haemorhous mexicanus*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Indigo bunting	(*Passerina cyanea*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
American goldfinch	(*Spinus tristis*)	COF, HNF, SNH, SRW, SOF, MLT, MF, URP, CFC, AOP, AOH
Family: Passerellidae – New World Sparrows		COF, HNF, SNH, SRW, AOH, SOF, MLT, MF, URP, CFC, AOP
Dark-eyed junco	(*Junco hyemalis*)	
Swamp sparrow	(*Melospiza georgiana*)	
Song sparrow	(*Melospiza melodia*)	
Chipping sparrow	(*Spizella passerina*)	
Field sparrow	(*Spizella pusilla*)	
American tree sparrow	(*Spizelloides arborea*)	

White-throated sparrow	(*Zonotrichia albicollis*)	
Fox sparrow	(*Passerella iliaca*)	
Savannah sparrow	(*Passerculus sandwichensis*)	
Eastern towhee	(*Pipilo erythrophthalmus*)	
Vesper sparrow	(*Pooecetes gramineus*)	
Family: Icteridae -Troupials and Allies		COF, HNF, SNH, SRW, AOH SOF, MLT, MF, URP, CFC, AOP
Red-winged blackbird	(*Agelaius phoencieus*)	
Bobolink	(*Dolichonyx oryzivorus*)	
Brown-headed cowbird	(*Molothrus ater*)	
Common grackle	(*Quiscalus quiscula*)	
Eastern meadowlark	(*Sturnella magna*)	
Family: Parulidae – New World Warblers		COF, HNF, SNH, SRW, AOH SOF, MLT, MF, URP, CFC, AOP
Common yellowthroat	(*Geothlypis trichas*)	
Nashville warbler	(*Leiothlypis ruficapilla*)	
Black-and-white warbler	(*Mniotilta varia*)	
Ovenbird	(*Seiurus aurocapilla*)	
Yellow-rumped warbler	(*Setophaga coronata*)	
Blackburnian warbler	(*Setophaga fusca*)	
Palm warbler	(*Setophaga palmarum*)	
Pine warbler	(*Setophaga pinus*)	
Black-throated green warbler	(*Setophaga virens*)	

Family: Cardinalidae – Cardinals and Allies

Northern cardinal	(*Cardinalis cardinalis*)	COF, HNF, SNH, SRW, AOH, SOF, MLT, MF, URP, CFC, AOP
Scarlet tanager	(*Piranga olivacea*)	COF, HNF, SNH, SRW, AOH, SOF, MLT, MF, URP, CFC, AOP

Family: Strigidae – Owls

Great horned owl	(*Bubo virginianus*)	COF, HNF, SNH, SRW, AOH, SOF, MLT, MF, URP, CFC, AOP
Eastern screech owl	(*Megascops asio*)	COF, HNF, SNH, SRW, AOH, SOF, MLT, MF, URP, CFC, AOP
Barred owl	(*Strix varia*)	COF, HNF, SNH, SRW, AOH, SOF, MLT, MF, URP, CFC, AOP

Amphibians

Spotted salamander	(*Ambystoma maculatum*)	VP, HNH, OWP, PEM
American toad	(*Anaxyrus americanus*)	PEM
Gray tree frog	(*Dryopteris versicolor*)	VP, PEM, PSS, PFO, IS
Four-toed salamander	(*Hemidactylium scutatum*)	PEM, HNH, VP
Green frog	(*Lithobates clamitans*)	VP, PEM, PSS, PFO, IS
Northern leopard frog	(*Lithobates pipiens*)	PEM, IS, VP
Red spotted newt & Red eft	(*Notophthalmus viridescens*)	OWP, PFO, PSS, PEM
Eastern red-backed salamander	(*Plethodon cinereus*)	PFO, HNH
Northern slimy salamander	(*Plethodon glutinosus*)	HNH
Spring peeper	(*Pseudacris crucifer*)	VP, PFO, PSS
Wood frog	(*Rana sylvatica*)	VP, PEM, PSS, PFO, IS

Reptiles

Painted turtle	(*Chrysemys picta*)	OWP
Snapping turtle	(*Chelydra serpentina*)	OWP
Eastern Garter snake	(*Thamnophis sirtalis*)	COF, HNF, SNH, SRW, AOH, SOF, MLT, MF, URP, CFC, AOP
Northern water snake	(*Nerodia sipedon*)	OWP, PFO, PSS, PEM
Milk snake	(*Lampropeltis triangulum*)	COF, HNF, SNH, SRW, AOH, SOF, MLT, MF, URP, CFC, AOP

Aquatic vertebrates

Black-nosed dace	(*Rhinichthys atratulus*)	OWP
Creek chub	(*Semolitus atromaculatus*)	OWP

Appendix J

Phase 1 Bog Turtle Habitat Assessment Form

Phase 1 Bog Turtle Habitat Survey Data Form** for the **Northern Population Range
(Revised April 29, 2020) Please do not edit document

Wetland ID: Wetland A
PNDI # (for PA): _____

General Info

Property/Project Name Winston Farm
Coordinates 42.090, -73.984 **Project Type** Biological Assessment
Entity Requesting Phase 1 Survey N/A
County/Township/Municipality Ulster County, Town of Saugerties
Lead Surveyor Stephen P. George **Affiliation** NCES, Inc.
Other Assistants Present Luka Koziol

Date/Condition

Date of Survey 4/8/23 **Time In** 10:00 AM **Time Out** 12:30 PM **Air Temp.** 43 (F)C°
Last Precipitation __ < 24 hours __ 1-7 days __ > 1 week X unknown **Drought conditions?** __ Yes X No __ Unknown
Drought Index*[1] (Circle) none D0 D1 D2 D3 D4 **Wetland Photos Taken** X Yes __ No (Provide photo location map)
Notes (*e.g.*, details about drought, flood, abnormally dry, and/or snow/ice conditions, and any other seasonal conditions observed):

Wetland Info

Wetland Size 14.16 acres, if known **# Wetlands w/in Project Area[2]** 19
Estimate wetland size (acres) __ < 0.1 __ 0.1 - 0.5 __ 0.5 - 1 __ 1 - 2 __ 2 - 4 __ 5+ X 10+
Estimate % Canopy Cover*[3] __ 0% __ ≤ 5 __ 6-20 X 21-40 __ 41-60 __ > 60
Hydrology and Soils (check all that apply): **use additional pages to further discuss pertinent general wetland information**
__ Springs/Seeps __ Springhouse X Trib/Stream __ Pond __ Stormwater __ Iron Bacteria __ Watercress
X Water Visible on Surface Evidence of Flooding X Yes __ No If yes, (__ Seasonal Flooding[4] X Routine Flooding[5])
__ Rivulets (_____inches deep) __ Subsurface Tunnel/Rivulets __ Tire Ruts (_____inches deep)
__ Small Puddles/Depressions (____ inches deep) X Saturated soils present? If yes, year-round? X Likely __ Unlikely __ Unk
X Yes __ No Are there any signs of disturbance to *hydrology* (*e.g.*, drainage ditches, tile drainages, berms, culverts, fill material, ponds, roads, beaver activity)? Beaver activity such as chewed stumps and portions of the Beaver Kill stream bank lined with mud pushed up from the stream bed.

Estimate time period (in years) of disturbance*: __ ≤ 5 __ 6-10 X 11-20 __ > 20

For ditches that may be present, is there bog turtle habitat? If yes, describe:
No

[1] (*) Denotes reference to the **Supplemental Information** document that provides more details on this particular question.
[2] Each wetland must have a separate Phase 1 habitat assessment data form completed.
[3] Determine percent cover of abundant species for the wetland, not by wetland type. Abundant species are those that are most prominent in the wetland and have the highest percent of coverage compared to other species.
[4] Seasonal flooding in wetlands/streams can occur as a result of spring snow melt/heavy rain that increases water levels in these systems.
[5] Routine flooding refers to tidally-influenced wetland/stream systems or the occurrence of normal rain patterns throughout the year.

Wetland ID: Wetland A

__ Yes X No Are there any signs of disturbance to *vegetation* (*e.g.*, mowing, pasturing, burning)? If yes, describe:

Wetland Info

Rate (scale of 1-4) level of vegetation disturbance* (Circle): 1. Light to moderate grazing or mowing (2.) No grazing, mowing, burning observed[6] 3. Moderate to high grazing or mowing 4. Mowing occurs during bog turtle active season

Soil types present*: Wb - Wayland soils complex, non-calcareous substratum, with 0-3% slopes, frequently flooded

How much suitable habitat is in this wetland? Estimate acreage or percentage: 1-3%.

Wetland Type	% of Total Wetland	% of Wetland Type w/Muck	Avg. Muck Depth	Max. Muck Depth
PEM Portion of Wetland:	45	5	3 in.	5 in.
PSS Portion of Wetland:	15	2	2 in.	5 in.
PFO Portion of Wetland:	0	0	0 in.	0 in.
POW/PUB Portion of Wetland: Stream	40	0	0 in.	0 in.

Wetland Type/Vegetation

CIRCLE all vegetation* from list below that is dominant (≥ 20% for each wetland type listed above) and add other species you observe that are not listed in table in the "notes" space provided below or in the extra table cells.

Alder Spp. *Alnus* spp.	(Common Reed *Phragmites australis*)	Jewelweed *Impatiens capensis*	Rice Cutgrass *Leersia oryzoides*	Spicebush *Lindera benzoin*	Willow spp. *Salix* spp.
Alder-leaved Buckthorn *Rhamnus alnifolia*	Dogwood Spp. *Cornus* spp.	Mile-A-Minute *Persicaria perfoliata*	Rough-leaved Goldenrod *Solidago patula*	Spike-Rush *Eleocharis palustris*	Woolly-fruited Sedge *Carex lasiocarpa*
American Elm *Ulmus americana*	Duck Potato *Sagittaria latifolia*	Multiflora Rose *Rosa multiflora*	Sensitive Fern *Onoclea sensibilis*	Swamp Rose *Rosa palustris*	Woolly Bulrush or Woolgrass *Scirpus cyperinus*
Arrowhead *Sagittaria latifolia*	Eastern Red Cedar *Juniperus virginiana*	Poison Sumac *Toxicodendron vernix*	Shrubby Cinquefoil *Dasiphora fruticosa*	Sweetflag *Acorus calamus*	Yellow-Green Sedge *Cyperus esculentus*
Carpetgrass *Axonopus fissifolius*	Eastern Tamarack *Larix laricina*	(Porcupine Sedge *Carex hystericina*)	(Skunk Cabbage *Symplocarpus foetidus*)	Tearthumb Spp. *Polygonum* spp.	
(Cattail *Typha* spp.)	Grass-of-Parnassus *Parnassia glauca*	(Purple Loosestrife *Lythrum salicaria*)	Smooth Sawgrass *Cladium mariscoides*	(Tussock Sedge *Carex stricta*)	
Cinnamon Fern *Osmundastrum cinnamomeum*	Inland sedge *Carex interior*	Red Maple *Acer rubrum*	(Soft Rush or Common Rush *Juncus effusus*)	Viburnum Spp. *Viburnum* spp.	
Common Boneset *Eupatorium perfoliatum*	Japanese Stiltgrass *Microstegium vimineum*	(Reed Canary Grass *Phalaris arundinacea*)	Sphagnum Moss *Sphagnum* spp.	White turtlehead *Chelone glabra*	

Notes on additional plant species (*e.g.*, sedge, rush, grass, shrub, tree species): woolgrass

[6] No grazing, mowing, or burning is given a "2" rank as this is considered more harmful to bog turtle wetlands than Rank 1 (light to moderate grazing or mowing). Light to moderate habitat management is beneficial to suppressing succession of native and non-native plant species.

Wetland ID: Wetland A

Describe surrounding landscape (*e.g.*, wetlands, forest, subdivision, agricultural field, fallow field, etc.):

- Agricultural fields located to the west.
- Undeveloped forested uplands located to the east.

Landscape Info

How much of this wetland is located **off-site** (*i.e.*, outside the property boundaries or right-of-way)?

__ None of it – the entire wetland is within the property boundaries

X Some of it – _____ Acres or _____% of the wetland appears to be located off-site

unknown

If part of this wetland continues off-site, how much of the **off-site portion** was surveyed (on foot)?

X None of it __ All of it __ Part of it (____ acres or ____% of the off-site portion)

Is there potential bog turtle habitat **within 300 feet***? __ Yes X No __ Unk Habitat **off-site**? __ Yes X No __ Unk

If yes, how did you conclude this?

Species

Were any bog turtles observed? __ Yes X No If yes, how many?_____

Other herps observed? X Yes __ No If yes, which ones?

green frogs & painted turtles

*Note that you must be permitted by the state you are conducting the survey in to handle bog turtles

*Report bog turtle observations to your local FWS Field Office and state wildlife office within 48 hrs

---

Lead Surveyor Opinion

__ Yes X No __ Unsure The **hydrology** criterion for bog turtle habitat is met.

__ Yes X No __ Unsure The **soils** criterion for bog turtle habitat is met.

__ Yes X No __ Unsure The **vegetation** criterion for bog turtle habitat is met.

__ Yes X No __ Unsure This wetland **HAS** potential bog turtle habitat (fair to good quality).

__ Yes X No __ Unsure This wetland **HAS** potential bog turtle habitat (low to very low quality).

__ This wetland does **NOT** have potential bog turtle habitat. __ **UNSURE** if suitable habitat is present.

Notes (How did you reach this opinion?):

This area is primarily open water with routine flooding from the Beaver Kill.

Lead Surveyor – please sign below certifying to the best of your knowledge that all of the information provided herein is accurate and complete.

Print Name Stephen P. George **Signature** Stephen P. George, PWS

Date 4/12/2023

Contact Information Email: northcountryeco@gmail.com Phone: 518-725-1007

****Important**** Please include all Phase 1 data forms in a final Phase 1 bog turtle habitat assessment report (see Attachment 3 in *Guidelines for Bog Turtle Surveys* for checklist) and submit to your local state wildlife agency and U.S. Fish and Wildlife Service Field Office (see Attachment 1 in *Guidelines for Bog Turtle Surveys*).

Additional space for notes, color photos, or maps/sketch of wetland (or attach printed map with each wetland type carefully outlined; include all wetland types [PEM, PSS, PFO, POW/PUB], streams/ditches, north arrow, property/project borders, and areas of core bog turtle habitat. Include **color photos** for each wetland assessed and separate Phase 1 data forms for each when submitting to agencies, as well as any reptile and amphibian species you encounter, if possible.

Appendix K

Northern Cricket Frog Survey Forms

North Country Ecological Services, Inc.
Northern Cricket Frog Survey - Field Data Sheet

Field Investigator: Stephen George, Luka Koziol, & Rachelle McKnight Date: 5/23/2023

Project Site: Winston Farm

Project Location: Saugerties (Town/Village) Ulster (County)

Sample/Transect ID: Wetland L Coordinates: 42.095 N, -73.999 W

Evaluation Method: ___ Visual/Sight Survey X Call/Response Survey

Time (Began): 11:00 (am/pm) Time (End): 1:00 (am/pm)

Ambient Air Temperature: 49 °F

Weather Conditions: Sunny

Approximate Cloud Cover: 0 %

Precipitation: ___ Yes X No

Approximate Wind Speed: 0 (Start of Survey)

Beaufort Wind Codes	
0	Calm, (<1mph) smoke rises vertically
1	Light Air, (1-3 mph) smoke drifts, weather vane inactive
2	Light Breeze, (4-7 mph) leaves rustle, can feel wind on face
3	Gentle Breeze, (8-12 mph) leaves and twigs move, flags extend
4+	Moderate Breeze, (13-18 mph) moves branches and raises paper
5+	Fresh Breeze, (>19 mph) small trees begin to sway

*** Do not conduct surveys if wind speeds are at code level 4 or 5

Ambient Noise Level: Low
(Low = no effect on survey; Moderate = somewhat affecting ability to hear; High = Significantly affecting ability to hear)

Habitat Type: Open water / Palustrine wetland Approximate Habitat Size (Acres): 11.66

NCF Present: ___ Yes X No If Yes, Identified By: ___ Sight ___ Sound

Number of NCF Identified ___1, ___2, ___3, ___4, ___5, ___6-10, ___>10

Other Species Identified: green frog, leopard frog, painted turtle

Notes:

North Country Ecological Services, Inc.
Northern Cricket Frog Survey - Field Data Sheet

Field Investigator: Stephen George Luka Koziol, Rachelle McKnight Date: 7/26/2023

Project Site: Winston Farm

Project Location: Saugerties (Town/Village) Ulster (County)

Sample/Transect ID: Wetland H & HH Coordinates: 42.094 N, -73.997 W

Evaluation Method: ____ Visual/Sight Survey ___X___ Call/Response Survey

Time (Began): 8 (am/pm) Time (End): 11:30 (am/pm)

Ambient Air Temperature: 83 °F

Weather Conditions: Sunset @ 8:30 PM, mostly cloudy

Approximate Cloud Cover: 65 %

Precipitation: ____ Yes ___X___ No

Approximate Wind Speed: 2 (Start of Survey)

Beaufort Wind Codes	
0	Calm, (<1mph) smoke rises vertically
1	Light Air, (1-3 mph) smoke drifts, weather vane inactive
2	Light Breeze, (4-7 mph) leaves rustle, can feel wind on face
3	Gentle Breeze, (8-12 mph) leaves and twigs move, flags extend
4+	Moderate Breeze, (13-18 mph) moves branches and raises paper
5+	Fresh Breeze, (>19 mph) small trees begin to sway

*** Do not conduct surveys if wind speeds are at code level 4 or 5

Ambient Noise Level: Low

(Low = no effect on survey; Moderate = somewhat affecting ability to hear; High = Significantly affecting ability to hear)

Habitat Type: Open water pond Approximate Habitat Size (Acres): 16

NCF Present: ____ Yes ___X___ No If Yes, Identified By: ____ Sight ____ Sound

Number of NCF Identified ___1, ___2, ___3, ___4, ___5, ___6-10, ___>10

Other Species Identified: gray treefrog, green frog, leopard frog, spring peeper

Notes:

North Country Ecological Services, Inc.
Northern Cricket Frog Survey - Field Data Sheet

Field Investigator: Stephen George Luka Koziol, Rachelle McKnight Date: 7/27/2023

Project Site: Winston Farm

Project Location: Saugerties (Town/Village) Ulster (County)

Sample/Transect ID: Wetland E Coordinates: 42.095 N, -73.991 W

Evaluation Method: X Visual/Sight Survey X Call/Response Survey

Time (Began): 4:30 (am/pm) Time (End): 8:30 (am/pm)

Ambient Air Temperature: 70 °F

Weather Conditions: Sunrise @ 5:15am, Sunny

Approximate Cloud Cover: 5-10 %

Precipitation: ____Yes X No

Approximate Wind Speed: 1 (Start of Survey)

Beaufort Wind Codes	
0	Calm, (<1mph) smoke rises vertically
1	Light Air, (1-3 mph) smoke drifts, weather vane inactive
2	Light Breeze, (4-7 mph) leaves rustle, can feel wind on face
3	Gentle Breeze, (8-12 mph) leaves and twigs move, flags extend
4+	Moderate Breeze, (13-18 mph) moves branches and raises paper
5+	Fresh Breeze, (>19 mph) small trees begin to sway

*** Do not conduct surveys if wind speeds are at code level 4 or 5

Ambient Noise Level: Low
(Low = no effect on survey; Moderate = somewhat affecting ability to hear; High = Significantly affecting ability to hear)

Habitat Type: Open water pond Approximate Habitat Size (Acres): 3.38

NCF Present: ____Yes X No If Yes, Identified By: ____Sight ____Sound

Number of NCF Identified ___1, ___2, ___3, ___4, ___5, ___6-10, ___>10

Other Species Identified: painted turtle

Notes:

North Country Ecological Services, Inc.
Northern Cricket Frog Survey - Field Data Sheet

Stephen George,

Field Investigator: Luka Koziol, Rachelle McKnight Date: 7/26-27 / 2023

Project Site: Winston Farm

Project Location: Saugerties (Town/Village) Ulster (County)

Sample/Transect ID: Wetland A & AA Coordinates: 42.093 N, -73.978 W

Evaluation Method: X Visual/Sight Survey X Call/Response Survey

8:30 pm - 11:30 pm

Time (Began): 4:30 (am/pm) Time (End): 8 (am/pm)

Ambient Air Temperature: _____ °F

Weather Conditions: cloudy

Approximate Cloud Cover: 10 - 20 %

Precipitation: _____ Yes X No

Approximate Wind Speed: 1 (Start of Survey)

Beaufort Wind Codes	
0	Calm, (<1mph) smoke rises vertically
1	Light Air, (1-3 mph) smoke drifts, weather vane inactive
2	Light Breeze, (4-7 mph) leaves rustle, can feel wind on face
3	Gentle Breeze, (8-12 mph) leaves and twigs move, flags extend
4+	Moderate Breeze, (13-18 mph) moves branches and raises paper
5+	Fresh Breeze, (>19 mph) small trees begin to sway

*** Do not conduct surveys if wind speeds are at code level 4 or 5

Ambient Noise Level: low

(Low = no effect on survey; Moderate = somewhat affecting ability to hear; High = Significantly affecting ability to hear)

Habitat Type: Palustrine emergent wetland Perennial stream Approximate Habitat Size (Acres): 24.61

NCF Present: _____ Yes X No If Yes, Identified By: _____ Sight _____ Sound

Number of NCF Identified ___1, ___2, ___3, ___4, ___5, ___6-10, ____>10

Other Species Identified: painted turtle and green frog

Notes: _____