Wildlife Biodiversity
and
Habitat Assessment for
Federally or New York State Listed
Threatened or Endangered Species

Project:

Luxor Junior Estates

S/B/L: 12.-1-41.5

Town of Fallsburg
Sullivan County, NY

Prepared By:

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Introduction

The proposed project site (the Project) is located on a parcel of approximately 43 acres within the Town of Fallsburg, situated to the northeast of Loch Sheldrake (Figure 1). As part of this Project's review requirements, Ecological Analysis, LLC, (EA) conducted a wildlife habitat assessment of the property. The onsite assessment included direct observations and indirect indications (e.g. scat, tracks, and or vocalizations) of resident wildlife common on the property, as well as the potential for the site to support certain "target" wildlife species that are listed as either "Threatened" or "Endangered" by the federal government's United States Fish and Wildlife Service (USFWS) and/or by the New York State Department of Conservation (NYSDEC). The onsite observations were conducted during January, 2022.

Prior to visiting the site, online queries were made on the websites of federal and state wildlife agencies in order to identify any Threatened or Endangered wildlife species that either of those agencies might expect to be present on, or in the vicinity of, the property, based on their records.

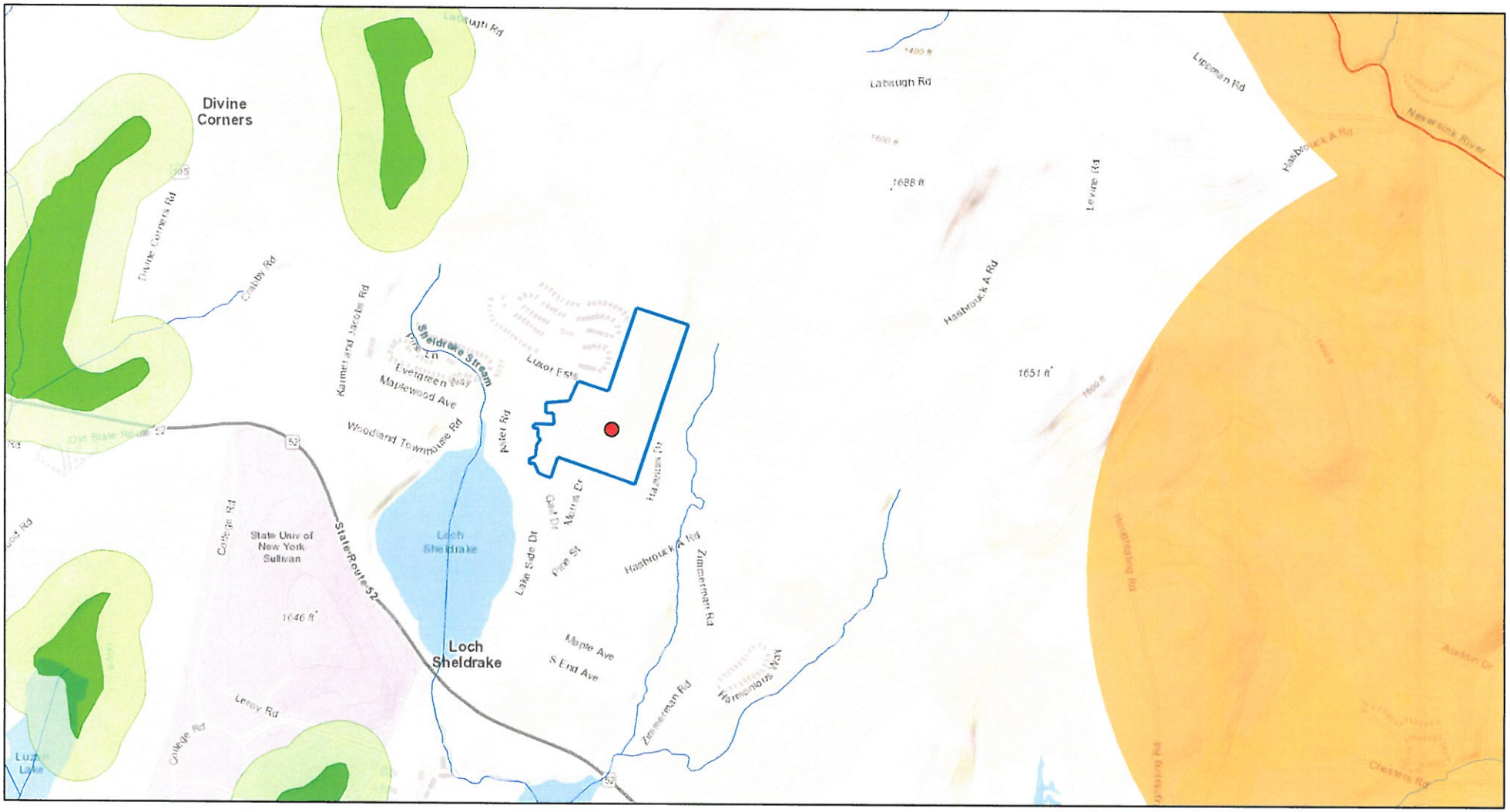
To identify federally protected wildlife that might have ranges that extend on or in the vicinity of this site, the USFWS Information for Planning and Consultation[1] (IPaC) website was consulted. The IPaC report generated by the USFWS is included in this report as Appendix A.

To identify state protected wildlife that might have ranges that extend on or in the vicinity of this site, both the NYSDEC online Environmental Assessment Form (EAF) Mapper website[2] and the Environmental Resource Mapper (ERM) website[3] were consulted. A copy of our consultation with the NYSDEC that prompts for the use of their EAF and ERM websites for consultation purposes is provided in Appendix B of this report, along with the EAF Mapper Summary Report for this Project. A third NYSDEC website, for the Herp Atlas Project[4], was referenced to generate a list of common or protected species of reptiles and amphibians (herptiles) that might be present on or near the Project site. This website shows the generalized locations of known populations of herptiles by highlighting each United States Geological Service (USGS) 7.5 minute-quadrangle (Quad) map within which the NYSDEC has information that a particular herptile species has a population. The Luxor junior Estates Project site is located within the USGS Liberty East Quad. A fourth NYSDEC website, for the most recent (2000-2005) Breeding Bird Survey (BBS)[5] was referenced to generate a list of breeding bird observations for the 3x3 square mile Survey Blocks where the Project is located. This Project site straddles two of the BBS Survey Blocks, Block Nos. 5262A and 5262C.

The property is entirely undeveloped and wooded, with the only presence of historic cultural usage being the locations of several stone walls that cross or border the property, marking the boundaries of several agricultural-era fields or pastures. USGS maps show the majority of the parcel to be open fields as recently as 40 years ago. Since that period, a hemlock and pine northern hardwood forest has developed in the areas of the abandoned fields, covering the entire 43 acres of the property. Within the overall dominant upland forest habitat, there are several small wetlands that are vegetated with emergent and scrub-shrub wetland plants. A list of the vegetation observed in the forest and wetlands across the property was recorded during

[1] The USFWS Information for Planning and Consultation (IPAC) website (https://ipac.ecosphere.fws.gov) is used as the primary resource to determine if a property may be within the range of any federally-listed Threatened or Endangered wildlife species.
[2] https://gisservices.dec.ny.gov/eafmapper/
[3] https://gisservices.dec.ny.gov/gis/erm/
[4] https://www.dec.ny.gov/animals/7140.html
[5] https://www.dec.ny.gov/animals/7312.html

Figure 1 - Luxor Junior Estates project location



March 10, 2022

- State Regulated Freshwater Wetlands
- State Regulated 500' Wetland Checkzone
- Rare Plants or Animals
- State Regulated Rivers/Streams
- Project Location

1:18,056

0 0.15 0.3 0.6 mi

0 0.28 0.55 1.1 km

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

NYS Department of Environmental Conservation
Not a legal document

the field survey, and was used in the characterization of the various habitats available for wildlife on the site. A listing of the 50 taxa of vegetation observed during the winter site visit is attached as Appendix C of this report.

In the vicinity of this site, within the area of the four USGS Quads adjacent to this proposed Project, there are range records for 53 mammalian species (Appendix D), 9 reptile species (Appendix E), and 14 amphibian species (Appendix F) that might be present on this property. Within the area of the two BBS blocks across which this Project site straddles, there are records for 101 avian species (Appendix G). As discussed below, only one of these 76 regional terrestrial wildlife species, and none of the 101 BBS avian species, is listed as either a Threatened or Endangered species by either the state or federal agencies, as identified by their project impact websites.

The USFWS IPaC website was queried to identify either protected habitats or species that may be present in or around the vicinity of the Project. The IPaC report that was generated by the website listed only the northern long-eared bat (*Myotis septentrionalis*) as a protected species which may be "potentially affected" by activities in this location. The IPaC search engine casts a broad, county-wide, review for potentially affected species and therefore may not accurately identify specific habitat areas of importance for any of the species identified in its reports.

The NYSDEC EAF Mapper website was therefore also queried in order to more accurately locate the known range of the northern long-eared bat (NLEB) within the Town of Fallsburg in the vicinity of the Project. The state protects habitats for this species that are either within 0.25 miles of known overwintering habitat (hibernacula) or within 250 feet of known summer occurrences of the species. The EAF mapper output (Figure 1) indicates that this site is not within, or close to, any of these state-protected areas for this species of bat or for any other of the "Rare Plants or Animals" protected by the state.

Based on the searches conducted above, there would be no Threatened or Endangered animal species, or any protected native plant, unique or locally rare plant or animal, or significant habitat areas known or reasonably expected to exist on or in the immediate vicinity of the Project site.

Site Description

The Town of Fallsburg, and the Catskill Plateau within which it is located, generally lie within the extensive North American Northern Hardwood Forest Zone[6]. Forests across this zone are dominated by sugar maple, sweet birch, American beech, eastern white pine, and eastern hemlock. Across most of the Project property, areas of mature second-growth forested lands predominate, consisting primarily of a maple-oak forest. Smaller areas of mostly evergreen forested lands are located along the southern and southwestern portions of the site.

Elevations across this flat to slightly sloping property range from a high point of approximately 1580 feet above sea level (ASL) within the northwestern corner of the site, to approximately 1490 feet ASL near the lowest point in the southwestern corner of the property. The property is in the drainage of Sheldrake Stream, and it contains several short headwaters of small, intermittent, unnamed tributaries in that watershed.

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[6] Kuchler, A.W. 1964. Potential Natural Vegetation of the Conterminous United States, American Geographical Society, Special Publication No. 36.

Sheldrake Stream discharges into the Neversink River. The Neversink River is a major tributary of the Delaware River.

The site features three habitat/ecosystem regional variants[7] that were observed and evaluated:

1. Hemlock/Pine and northern hardwood forest uplands;
2. Palustrine forested wetlands;
3. Headwater streams.

Appendix H presents photographs of typical views for each of these habitats at several locations across the site.

Uplands

Upland habitat predominates across the property. A patchy distribution of hemlock and pine (evergreen) wooded areas is present within a largely deciduous forest dominated by red maple, sugar maple, and red oak. The plants dominating upland areas were those of several mature tree species, including red maple (*Acer rubrum*), sugar maple (*A. saccharum*), red oak (*Quercus rubra*), eastern white pine (*Pinus strobus*), eastern hemlock (*Tsuga canadensis*), and black cherry (*Prunus serotina*). Underneath the nearly fully closed canopy formed by these trees, the understory vegetation was very sparsely present, occurring only in areas of patchy coverage. The observed understory consisted primarily of ferns and clubmosses, including evergreen woodfern (*Dryopteris intermedia*), princess pine (*Dendrolycopodium obscurum*), groundpine (*D. dendroideum*), and running clubmoss (*Lycopodium clavatum*).

Wetlands

Three small (<0.25 acres) wetlands were located on the property in January, 2022. None of these wetland areas are present on either New York State (Figure 1) or Federal (Figure 2) online mapping resources. These wetlands each have a Cowardin[8] classification of PFO1E, which denotes an area of broad-leaved deciduous forest wetland that has seasonally flooded or saturated soils.

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

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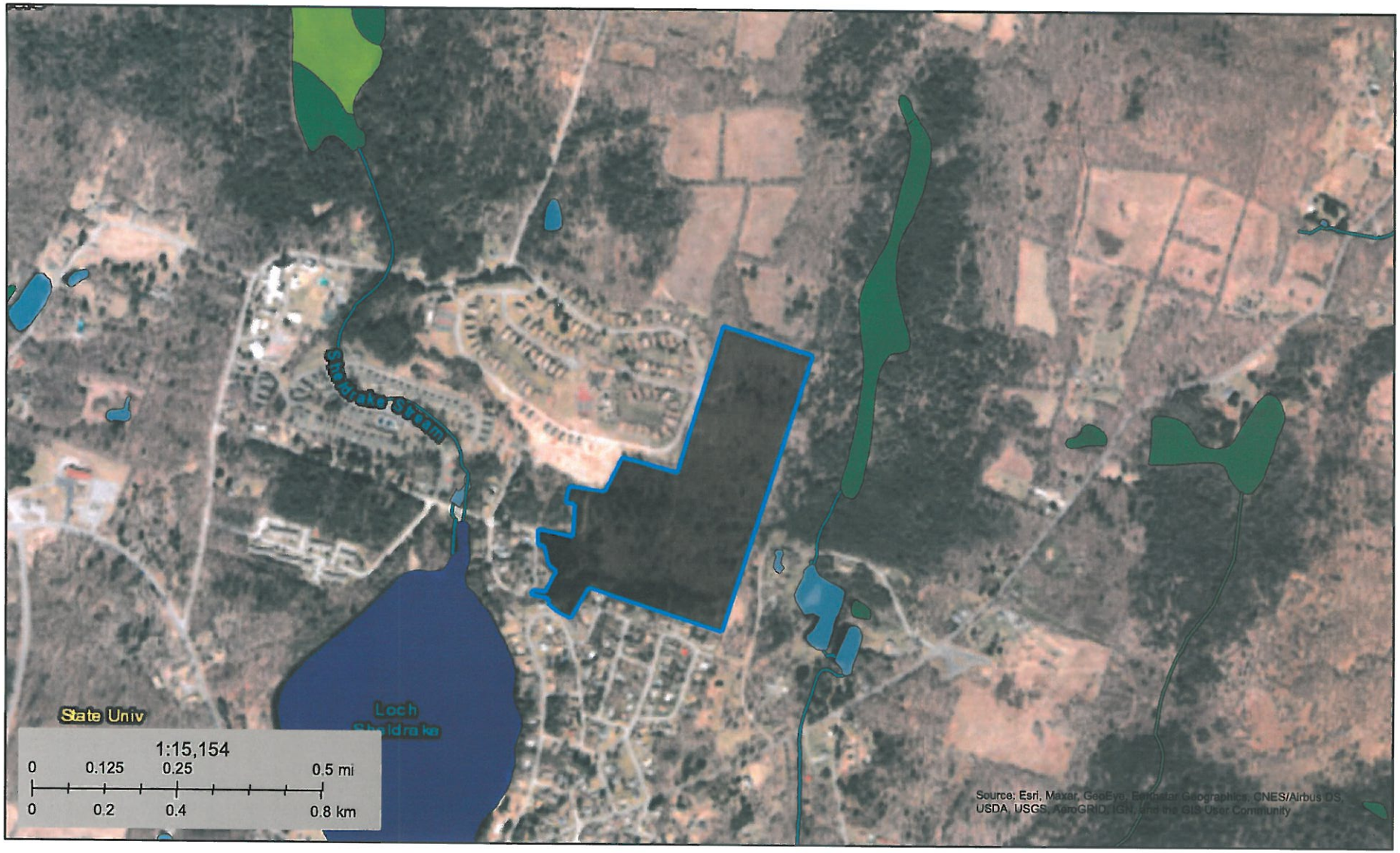
[7] Adapted from: Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. Ecological Communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

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

U.S. Fish and Wildlife Service

National Wetlands Inventory

Figure 2 - Luxor Junior Estates NWI Map



March 24, 2022

Wetlands

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

Streams

Several small, short, intermittent headwater streams are located on the Project site. These originate at hillside seeps near to the western boundary of the property along Buttercup Road. They leave the property by discharging into the roadside drainage along Buttercup Road. None of these streams are mapped by the NYSDEC Environmental Resource Mapper website (Figure 1). Each forms the headwater of a tributary in a small watershed of Sheldrake Stream.

Wildlife Use of the Site

The site provides a limited diversity of habitats for use by any of the regional wildlife species listed in Appendices D-G. The wooded upland has many mature trees of species that would provide forage foods and browse in the form of seeds and acorns (mast), leaves, and buds for the larger wildlife species in the area. However, the very sparse amount of understory trees, shrubs, forbs, and grasses present within the wooded uplands, and the lack of exposed bedrock habitats (e.g. ledges and crevices) add little additional value as either forage, browse, or shelter for these wildlife species. The smaller of the regional wildlife species would be more able to find shelter, such as under or within the several lengthy runs of stone walls and in the locations of standing or fallen dead wood, including the trunks, limbs and decaying stumps that are sporadically present throughout the forested areas of the site. These areas would also produce and provide abundant invertebrate food sources for many of the smaller predatory species of mammals, reptiles, amphibians, and birds.

The wetland areas and streams on this property encompass only a small fraction of the available wildlife habitats of the site. Any of the regional terrestrial fauna would utilize these areas in transit, while smaller, omnivorous, mammals and reptiles such as raccoons, muskrat, skunks, and wood turtles would forage within and around the wetlands, consuming wetland vegetation or either vertebrate or invertebrate aquatic prey species when seasonally present. However, for some of the regional reptiles, and many of the regional amphibians which are dependent on having year around access to permanent or seasonal water bodies, the lack of any kind of open water (e.g. vernal pools, ponds, impoundments) is a strictly limiting feature of this property. The reptiles and amphibians which are listed in Appendices E and F are those which might be present on sites such as this which lack open water features.

In the context of the property's generally uniform landscape as described above, and that of adjacent land usages, a varied community of bird species, which utilize closed canopy woodlands, are likely to use this site, either as a stopover during seasonal migrations, or for feeding or nesting activities. Such species might include: vireos, warblers, finches, thrushes, and woodpeckers as well as several hawk and owl species. While none of these avian species are specifically state protected, losses in their populations are of concern both regionally and statewide, as areas of woodland are cleared for development. The presence of other nearby areas of forests on parcels either abutting or located within several miles in all directions presents similar habitats within numerous regional preserves, protected parklands, and undeveloped properties all of which may be used by these species if displaced either temporarily or permanently from the site of this proposed development.

Conclusions

There were no Threatened or Endangered wildlife species identified for this location by the state ecological assessment websites that were queried. While the federal ecological assessment website did identify the northern long-eared bat as being a Threatened species of concern in Sullivan County generally, potential impacts to this species at the specific Project location would not be expected, based on the more accurate

assessment provided by the state's determination which did not identify any potential for impacts to the NLEB in this portion of the County.

As stated earlier, it can be expected that a temporary displacement of most wildlife species on the property would occur during development of this property. The property is of a size, and is located within an area, that would be expected by itself to sustain populations of any of the species of larger wildlife identified in this area, such as deer, coyote, or foxes. The habitats on the site alone would provide greater habitat value for mid-sized and smaller wildlife, such as racoons, skunks, rodents, and mammalian insectivores.

Post-development, any remaining open space areas, consisting of unimpacted habitats and the areas dedicated to stormwater treatment, will remain as mostly wooded or brushy areas of the property. The continuing usage of any of these remaining undeveloped portions of the site by mid-sized and smaller wildlife species would be expected. Those areas together would also continue to provide some habitat value for the passage of larger mammals through and around the property. Therefore, it is our professional opinion that the proposed development plan would not adversely affect any area-wide wildlife populations.

Appendices:

- APPENDIX A – USFWS IPaC report
- APPENDIX B – Consultations with NYSDEC
- APPENDIX C – List of observed vegetation
- APPENDIX D – List of mammals that may be present at the Luxor Junior Estates site
- APPENDIX E – List of reptiles that may be present at the Luxor Junior Estates site
- APPENDIX F – List of amphibians that may be present at the Luxor Junior Estates site
- APPENDIX G – 2000-2005 Breeding Bird Atlas – Blocks 5262A and 5262C
- APPENDIX H – Site photographs

Appendix A

USFWS IPaC report

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Sullivan County, New York

Local office

New York Ecological Services Field Office

(607) 753-9334
(607) 753-9699

3817 Luker Road
Cortland, NY 13045-9385

http://www.fws.gov/northeast/nyfo/es/section7.htm

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. 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.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

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

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Aug 31
Black-capped Chickadee *Poecile atricapillus practicus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 10 to Jul 31
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence ( )

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted

Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Appendix B

Consultations with NYSDEC

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 3
21 South Putt Corners Road, New Paltz, NY 12561-1620
P: (845) 256-3054 | F: (845) 255-4659
www.dec.ny.gov

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Thank you for submitting a jurisdictional inquiry to the Department of Environmental Conservation (DEC or Department). The Department receives a large volume of these inquiries, and we are unable to conduct a thorough review of all projects in preliminary phases. In most cases, the resources are available on the DEC website in order to determine whether a permit is required or specific measures to avoid the need for a permit.

The Department strongly recommends using our online Environmental Resource Mapper (ERM) to screen for natural resources which are potentially regulated by DEC. The ERM can be found at the following link: https://www.dec.ny.gov/animals/38801.html. The ERM shows the approximate location of State-mapped freshwater wetlands, the location and classification of streams/waterbodies, occurrences of threatened and endangered species, and more (using the "Layers and Legend" ribbon). Please use the ERM to review your project area as you plan your project and/or determine if a permit application needs to be submitted to the DEC.

The Department offers the following general comments on our permit jurisdictions below, including links to further information on our website to assist you in determining whether an application needs to be submitted to DEC.

PROTECTION OF WATERS

Stream Disturbance - A Protection of Waters Stream Disturbance permit is required to physically disturb the bed or banks (up to 50 feet from stream) of streams or waterbodies under 10 acres classified as AA, A, or B, or those with a classification of C which also have a standard of T or TS. Disturbance of the bed or banks of streams or waterbodies with a classification of C or D which do not have a T or TS standard do not require this permit. As described above, the ERM can be used to find out classifications of mapped streams and waterbodies. For more information, please visit https://www.dec.ny.gov/permits/6554.html.

Excavation and Fill - A Protection of Waters Excavation and Fill permit is required for excavating or placing fill in navigable waters of the state, below the mean high water level regardless of classification. For more information, please visit https://www.dec.ny.gov/permits/6548.html.

Dams - A Protection of Waters Dam permit is required for constructing, reconstructing, repairing, or modifying dams and water impounding structures of certain height and/or impoundment threshold capacities (please visit https://www.dec.ny.gov/permits/6552.html for a list exemption criteria).

Docks, Moorings & Platforms - A Protection of Waters Docks, Moorings & Platforms permit is required for constructing, reconstructing, or repairing docks or platforms and installing moorings on, in or above navigable waters to create docking facilities, mooring areas or to facilitate other activities. As DEC jurisdiction will be dependent on ownership of the underwater lands, please obtain a determination on ownership from the NYS Office of General Services at LandUnderWater@ogs.ny.gov. More information, including common exemption criteria for the DEC permit, may be found here: https://www.dec.ny.gov/permits/6550.html.

FRESHWATER WETLANDS

Most physical disturbances within NYS regulated freshwater wetlands and their 100-foot adjacent areas require a Freshwater Wetlands Permit. For more information, please visit https://www.dec.ny.gov/permits/6279.html.

Wetland boundaries shown on the ERM and other publicly available sources are approximate. In order to initiate the permitting process, the wetland boundary would have to be delineated by DEC staff, or DEC staff can validate a boundary delineated by others. For any questions regarding the location of wetland boundaries as shown on the ERM or other sources, please contact the DEC Bureau of Ecosystem Health at (845) 256-3087 and leave a brief message including your name, contact information, and the specific location

TIDAL WETLANDS

The Department regulates disturbances to tidal wetlands and their adjacent areas (which may extend up to 300 feet away from the wetland boundary). Tidal wetlands are mapped by the Department, and in Region 3, can be found along the shore of Long Island Sound and some tributary rivers to the Sound, as well as the Hudson River south of the Governor Mario M. Cuomo Bridge. The tidal wetland maps can be viewed online through the DECinfo Locator under the "Environmental Quality" tab and "Environmentally Sensitive Areas" heading. The DECinfo Locator is available at https://www.dec.ny.gov/pubs/109457.html. If your project is within 300 feet of mapped wetland, you will need to get a jurisdictional determination from Division of Marine Resources staff on the location of the adjacent area and the current boundaries of the wetland. Please contact Angela Schimizzi at angela.schimizzi@dec.ny.gov. Provide a map with your project location and a request for jurisdictional determination. For more information, including what types of activities require a permit, please visit https://www.dec.ny.gov/permits/6359.html.

WATER QUALITY CERTIFICATION

If the US Army Corps of Engineers requires a permit pursuant to Section 404 of the Clean Water Act for the discharge to fill in Waters of the U.S., then a Section 401 Water Quality Certification will be required. Issuance of these certifications is delegated in New York State to DEC. If the project qualifies for a Nationwide Permit, it may be eligible for coverage under DEC's Blanket Water Quality Certification. A determination on Corps jurisdiction and Nationwide Permit eligibility is likely necessary for a DEC jurisdictional determination.

In 2020 the EPA implemented a new rule on the processing and issuance of Water Quality Certifications. Among the requirements are submission of a pre-filing meeting request 30-days prior to submission of the application and a number of additional specifications for the application materials themselves. Forms for pre-filing meeting request and a supplemental to the Joint Application for Water Quality Certifications are available online at https://www.dec.ny.gov/permits/6222.html.

You must submit the Water Quality Certification Pre-Filing Request Form at least 30 days before you plan to submit the application. When submitting, the application must include the Water Quality Certification Joint Application Supplement WQC-1 Form. Additional information regarding Water Quality Certifications can be found at the following link: https://www.dec.ny.gov/permits/6546.html.

STATE-LISTED SPECIES

If your project location is within an orange bubble in the ERM identified as an animal species listed as Endangered or Threatened, your project may need to be reviewed for potential impacts to those species. Your next step should be to find out which species are present by using the EAF Mapper at https://gisservices.dec.ny.gov/eafmapper/; any listed species in the vicinity of the

project site will be reported on the last page of the report generated by the EAF Mapper (you may use the EAF Mapper even if you are not completing or submitting an EAF).

If the ERM identifies listed plants, or special concern or unlisted animals, for more information make an online request to the New York Natural Heritage Program at https://legacy.nynhp.org/project-screening. Potential impacts to listed plants and special concern animals should be considered in project design but are not directly regulated. State-protected native plants are covered by Environmental Conservation Law §9-1503 and 6 NYCRR Part 193.3. Additional information on listed plants can be found at https://www.dec.ny.gov/animals/7135.html, and information on special concern animals at https://www.dec.ny.gov/animals/7494.html.

Listed endangered and threatened animal species and the habitat they occupy are protected by state law and regulation. An incidental take permit is required for any activity that is likely to result in harm to a state-listed threatened or endangered species or its habitat.

For guidance on how to avoid potential impacts associated with a proposed project and feedback on whether your project may need an incidental take permit, you will need to provide as much of the following information as possible to the Region 3 Wildlife Program at Wildlife.R3@dec.ny.gov.

- **Project location information:** site location map identifying the town, county and nearest crossroads and the proposed project boundaries (e.g., USGS, DOT, tax parcel map, shapefiles, etc.).
- **Photographs**: include any photos of the proposed project location or habitats (forest cover, wetlands, etc.).
- **Project Description**: narrative including project details, activities, and scope and scale of the project.

Please note, additional information such as project plans, timelines/schedules, habitat assessments, and/or details on avoidance measures may be requested for a final determination or guidance.

WATER WITHDRAWAL

A water withdrawal permit from DEC is required for ANY type of non-agricultural withdrawal with a *withdrawal capacity* (i.e., not demand) of 100,000 gallons per day or more, based on the combined rated-capacity of the pumps on all sources. For more information, please visit https://www.dec.ny.gov/permits/6379.html. Agricultural withdrawals are subject to different permitting requirements, for more information please visit https://www.dec.ny.gov/lands/86747.html. If you have a question which cannot be answered using information from the website, please contact the Division of Water at DOW.R3@dec.ny.gov.

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES) WASTEWATER

Discharges of wastewater to surface water and groundwater are regulated and may require a permit. A discharge is regulated if it includes any pollutant, including sewage, industrial by-product, and heat from coolant systems. All discharges to surface waters require a permit. All discharges of industrial pollutants require a permit. Industrial pollutants include agriculture-related by-products from brewing, distilling, canning, and silage. Sewage discharges to groundwater do not require a SPDES permit if they are less than 1,000 gallons per day; residencies of less than 5 bedrooms will not require a permit. For more information, please visit https://www.dec.ny.gov/permits/6306.html. If you have a question which cannot be answered using information from the website, please contact the Division of Water at DOW.R3@dec.ny.gov.

SPDES STORMWATER

If the overall project will disturb over one acre of land (or 5000 square feet or more of land within the NY City Department of Environmental Protection East of Hudson Watershed[1]), the project sponsor must obtain coverage under the current SPDES General Permit for Stormwater Discharge from Construction Activity (GP-0-20-001), and a Stormwater Pollution Prevention Plan (SWPPP) must be developed which conforms to requirements of the General Permit. Authorization for coverage under this SPDES General Permit is not granted until the Department issues all other necessary DEC permits. Information on gaining coverage under GP-0-20-001 is available online at https://www.dec.ny.gov/chemical/43133.html. If you have a question which cannot be answered using information from the website, please contact the Division of Water at DOW.R3@dec.ny.gov.

AREA-SPECIFIC JURISDICTIONS

Two permit jurisdictions apply only in specific locations. Please note that in these regulatory areas, virtually all activities beyond ordinary maintenance of existing structures may require a permit.

Coastal Erosion Management: Projects along the shoreline of Long Island Sound may also require a Coastal Erosion Management permit for work in the Coastal Erosion Hazard Area (CEHA). The CEHA is mapped in Region 3 along the outer shoreline of the Villages of **Larchmont** and **Mamaroneck**, the Town of **Mamaroneck**, and the Cities of **Rye** and **New Rochelle**[2].

Wild, Scenic, Recreational Rivers (WSRR): Two river sections in DEC's Region 3 are mapped under WSRR with associated regulated River Areas. Projects in the following areas may require a WSRR permit:

- the Village of **Sloatsburg** and nearby portions of the Town of **Ramapo**, up to 0.5 mile from the Ramapo river;
- the Towns of **Gardiner** and **Shawangunk**, up to 0.5 mile from the Shawangunk Kill;

Projects in these specific areas should contact the Department for a determination whether their parcel is regulated.

OTHER

Please note, this is not an exhaustive list of all the DEC permits, licenses, or approvals that may be required for a given project. If you believe any one of the above-described permits could be required for your project, an application must be submitted. The application forms, lists of required materials for application, guidance on the permit process, and examples of regulated projects are available at https://www.dec.ny.gov/permits/6222.html. Please note, approvals from other agencies may be required as well. DEC cannot comment on other agencies' jurisdiction, and other agencies must be contacted directly for questions on their jurisdiction.

If you continue to have questions about DEC permit jurisdiction for your project after reviewing the online resources linked to above, please contact the Division of Environmental Permits at dep.r3@dec.ny.gov, or 845-256-3054. However, please note that basic jurisdictional inquiries are not afforded any regulatory timeframes or procedures in which staff has to process or respond. Submission of actual applications can be made to the Region 3 Office in New Paltz or to the email above; electronic submission of applications is highly recommended and will speed processing.

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[1] The NYC DEP watershed boundary can be viewed on the interactive Recreation Area Map on their website at https://www1.nyc.gov/site/dep/recreation/recreation.page

[2] Note: The City of New Rochelle is a Certified CEHA Community and issuance of Coastal Erosion Management Permits is the responsibility of the City.

Sincerely,

John W. Petronella

John W. Petronella
Regional Permit Administrator
Division of Environmental Permits

EAF Mapper Summary Report

Wednesday, March 9, 2022 9:27 AM

Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	No
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No

Appendix C

List of observed vegetation
January, 2022

List of vegetation observed on the Luxor Junior Estates property

COMMON NAME	SCIENTIFIC NAME
Red maple	*Acer rubrum*
Sugar maple	*Acer saccharum*
Japanese barberry	*Berberis thunbergii*
Yellow birch	*Betula alleghaniensis*
Sweet birch	*Betula lenta*
Gray birch	*Betula populifolia*
Pennsylvania bittercress	*Cardamine pensylvanica*
Fringed sedge	*Carex crinita*
Sedge	*Carex* spp.
American hornbeam	*Carpinus caroliniana*
Drooping woodreed	*Cinna latifolia*
Threeleaf goldthread	*Coptis trifolia*
Hayscented fern	*Dennstaedtia punctilobula*
Parasol whitetop	*Doellingeria umbellata*
Evergreen wood fern	*Dryopteris intermedia*
Willowherb	*Epilobium* spp.
American beech	*Fagus grandifolia*
Green ash	*Fraxinus pennsylvanica*
Wintergreen	*Gaultheria procumbens*
White avens	*Geum canadense*
Manna grass	*Glyceria* spp.
Winterberry	*Ilex verticillata*
Soft rush	*Juncus effusus*
Mountain laurel	*Kalmia latifolia*
Running clubmoss	*Lycopodium clavatum*
Tree groundpine	*Lycopodium dendroideum*
Fan club moss	*Lycopodium digitatum*
Canada mayflower	*Maianthemum canadense*
Forget-me-not	*Myosotis* spp.
Sensitive fern	*Onoclea sensibilis*
Virginia creeper	*Parthenocissus quinquefolia*
Eastern white pine	*Pinus strobus*
Christmas fern	*Polystichum acrostichoides*
Black cherry	*Prunus serotina*
White oak	*Quercus alba*
Red oak	*Quercus rubra*

COMMON NAME	SCIENTIFIC NAME
Great laurel	*Rhododendron maximum*
Multiflora rose	*Rosa multiflora*
Allegheny blackberry	*Rubus allegheniensis*
Bristly dewberry	*Rubus hispidus*
American red raspberry	*Rubus idaeus*
Brambles	*Rubus* spp.
Bitter dock	*Rumex obtusifolius*
Goldenrod	*Solidago* spp.
Sphagnum moss	*Sphagnum* spp.
Eastern poison ivy	*Toxicodendron radicans*
Eastern hemlock	*Tsuga canadensis*
Lowbush blueberry	*Vaccinium angustifolium*
Highbush blueberry	*Vaccinium corymbosum*
Nannyberry	*Viburnum lentago*
This list represents species that were observed during a seasonal field survey in January, 2022, and therefore is not reported as an exhaustive list of all of those species that are present on the property.	

Appendix D

List of mammals that may be present at the Luxor Junior Estates site

COMMON NAME	SCIENTIFIC NAME
Northern short-tailed shrew	*Blarina brevicauda*
Coyote	*Canis latrans*
Southern red-backed vole	*Clethrionomys gapperi*
Star-nosed mole	*Condylura cristata*
Least shrew	*Cryptotis parva*
Virginia opossum	*Didelphis virginiana*
Big brown bat	*Eptesicus fuscus*
Porcupine	*Erithizon dorsatum*
Southern flying squirrel	*Glaucomys volans*
Silver-haired bat	*Lasionycteris noctivagans*
Red bat	*Lasiurus borealis*
Hoary bat	*Lasiurus cinereus*
Varying hare	*Lepus americanus*
Bobcat	*Lynx rufus*
Woodchuck *	*Marmota monax*
Marten	*Martes americana*
Fisher	*Martes pennanti*
Striped skunk	*Mephitis mephitis*
Rock vole	*Microtus chrotorrhinus*
Meadow vole	*Microtus pennsylvanicus*
Woodland vole	*Microtus pinetorum*
House mouse	*Mus musculus*
Ermine	*Mustela erminea*
Long-tailed weasel	*Mustela frenata*
Mink	*Mustela vison*
Southern red-backed vole	*Myodes gapperi*
Small-footed bat	*Myotis leibii*
Little brown bat	*Myotis lucifugus*
Northern long-eared bat	*Myotis septentrionalis*
Indiana bat	*Myotis sodalis*
Woodland jumping mouse	*Napaeozapus insignis*
White-tailed deer *	*Odocoileus virginianus*
Hairy-tailed mole	*Parascalops breweri*
White-footed mouse	*Peromyscus leucopus*
Deer mouse	*Peromyscus maniculatus*
Eastern pipistrelle	*Pipistrellus subflavus*
Raccoon	*Procyon lotor*
Norway rat	*Rattus norvegicus*
Black rat	*Rattus rattus*
Eastern mole	*Scalopus aquaticus*
Gray squirrel *	*Sciurus carolinensis*

COMMON NAME	SCIENTIFIC NAME
Masked shrew	*Sorex cinereus*
Long-tailed shrew	*Sorex dispar*
Smoky shrew	*Sorex fumeus*
Pygmy shrew	*Sorex hoyi*
Eastern cottontail	*Sylvilagus floridanus*
Southern bog lemming	*Synaptomys cooperi*
Eastern chipmunk	*Tamias striatus*
Red squirrel *	*Tamiasciurus hudsonicus*
Gray fox	*Urocyon cinereoargenteus*
Black bear	*Ursus americanus*
Red fox	*Vulpes vulpes*
Meadow jumping mouse	*Zapus hudsonius*
Adapted from: Reid, Fiona. 2006. Peterson Field Guide to Mammals of North America. * - observed on site.	

Appendix E

List of reptiles that may be present at the Luxor Junior Estates site

COMMON NAME	SCIENTIFIC NAME
Northern black racer	*Coluber constrictor*
Northern ringneck snake	*Diadophis punctatus*
Wood turtle	*Glyptemys insculpta*
Eastern hognose snake	*Heterodon platirhinos*
Eastern milk snake	*Lampropeltis triangulum*
Smooth green snake	*Liochlorophis vernalis*
Northern brown snake	*Storeria dekayi*
Northern redbelly snake	*Storeria occipitomaculata*
Common garter snake	*Thamnophis sirtalis*
Source: NYSDEC Herp Atlas. https://www.dec.ny.gov/animals/7140.html	

Appendix F

List of amphibians which may be present at the Luxor Junior Estates site

COMMON NAME	SCIENTIFIC NAME
Spotted salamander	*Ambystoma maculatum*
Eastern American toad	*Anaxyrus americanus*
Northern dusky salamander	*Desmognathus fuscus*
Allegheny mountain dusky salamander	*Desmognathus ochrophaeus*
Northern two-lined salamander	*Eurycea bislineata*
Northern spring salamander	*Gyrinophilus porphyriticus*
Gray treefrog	*Hyla versicolor*
Northern green frog	*Lithobates clamitans*
Pickerel frog	*Lithobates palustris*
Northern leopard frog	*Lithobates pipiens*
Wood frog	*Lithobates sylvatica*
Red-spotted newt	*Notophthalmus viridescens*
Northern red-backed salamander	*Plethodon cinereus*
Northern spring peeper	*Pseudacris crucifer*
Source: NYSDEC Herp Atlas. https://www.dec.ny.gov/animals/7140.html	

Appendix G

2000-2005 Breeding Bird Atlas
Blocks 5262A and 5262C

NYS Breeding Bird Atlas[1]

Blocks 5262A and 5262C

2000-2005

Breeding Behaviors Summary	
Total species:	101
Possible breeding behavior (Number of species):	41
Probable breeding behavior (Number of species):	48
Confirmed breeding behavior (Number of species):	66
Note: Some species exhibited multiple breeding behaviors.	

[1] https://www.dec.ny.gov/animals/7312.html

[2] Refer to Breeding Bird Atlas Behavior Code Key at end of table.

List of Species Exhibiting Breeding Behavior, 2000-2005

Atlas Blocks 5262A and 5262C

Common Name	Scientific Name	Behavior Code[2]	Date	NY Legal Status
Cooper's Hawk	*Accipiter cooperii*	FY	7/7/2001	Protected-Special Concern
Northern Goshawk	*Accipiter gentilis*	X1	5/30/2000	Protected-Special Concern
Sharp-shinned Hawk	*Accipiter striatus*	X1	6/14/2004	Protected-Special Concern
Spotted Sandpiper	*Actitis macularius*	X1	5/27/2005	Protected
Red-winged Blackbird	*Agelaius phoeniceus*	FL, FY	7/20/2001	Protected
Wood Duck	*Aix sponsa*	FL, ON	5/22/2002	Game Species

List of Species Exhibiting Breeding Behavior, 2000-2005

Atlas Blocks 5262A and 5262C

Common Name	Scientific Name	Behavior Code[2]	Date	NY Legal Status
Mallard	*Anas platyrhynchos*	ON, X1	4/18/2004	Game Species
American Black Duck	*Anas rubripes*	FL, X1	5/14/2000	Game Species
Ruby-throated Hummingbird	*Archilochus colubris*	D2, FL	8/10/2001	Protected
Great Blue Heron	*Ardea herodias*	FL, X1	8/9/2000	Protected
Tufted Titmouse	*Baeolophus bicolor*	T2, X1	5/1/2004	Protected
Cedar Waxwing	*Bombycilla cedrorum*	FY, X1	6/14/2004	Protected
Ruffed Grouse	*Bonasa umbellus*	X1	9/15/2000	Game Species
Canada Goose	*Branta canadensis*	FL	5/24/2000	Game Species
Great Horned Owl	*Bubo virginianus*	FL, X1	8/25/2003	Protected
Red-tailed Hawk	*Buteo jamaicensis*	P2, X1	4/12/2000	Protected
Red-shouldered Hawk	*Buteo lineatus*	T2, X1	3/22/2002	Protected-Special Concern
Broad-winged Hawk	*Buteo platypterus*	FY	5/21/2001	Protected
Green Heron	*Butorides virescens*	X1	6/23/2000	Protected
Northern Cardinal	*Cardinalis cardinalis*	FL, X1	8/15/2003	Protected
House Finch	*Carpodacus mexicanus*	FL	6/20/2000	Protected
Purple Finch	*Carpodacus purpureus*	FL, P2	6/20/2000	Protected
Turkey Vulture	*Cathartes aura*	X1	6/20/2000	Protected
Veery	*Catharus fuscescens*	T2	6/27/2004	Protected
Hermit Thrush	*Catharus guttatus*	FY, S2	6/9/2003	Protected
Brown Creeper	*Certhia americana*	X1	5/18/2005	Protected
Killdeer	*Charadrius vociferus*	FL, X1	5/21/2001	Protected
Yellow-billed Cuckoo	*Coccyzus americanus*	X1	6/15/2004	Protected

List of Species Exhibiting Breeding Behavior, 2000-2005

Atlas Blocks 5262A and 5262C

Common Name	Scientific Name	Behavior Code[2]	Date	NY Legal Status
Black-billed Cuckoo	*Coccyzus erythropthalmus*	T2, X1	6/10/2005	Protected
Northern Flicker	*Colaptes auratus*	FY, X1	6/24/2004	Protected
Rock Pigeon	*Columba livia*	ON	6/12/2004	Unprotected
American Crow	*Corvus brachyrhynchos*	FL, FY	6/10/2000	Game Species
Blue Jay	*Cyanocitta cristata*	FL, S2	7/13/2001	Protected
Yellow-rumped Warbler	*Dendroica coronata*	S2, X1	6/14/2001	Protected
Blackburnian Warbler	*Dendroica fusca*	X1	6/27/2004	Protected
Magnolia Warbler	*Dendroica magnolia*	X1	6/14/2004	Protected
Chestnut-sided Warbler	*Dendroica pensylvanica*	S2, T2	5/27/2005	Protected
Yellow Warbler	*Dendroica petechia*	D2, FL	5/27/2005	Protected
Black-throated Green Warbler	*Dendroica virens*	T2	6/14/2004	Protected
Bobolink	*Dolichonyx oryzivorus*	D2, P2	6/13/2001	Protected
Pileated Woodpecker	*Dryocopus pileatus*	S2, X1	6/3/2000	Protected
Gray Catbird	*Dumetella carolinensis*	FY	6/9/2003	Protected
Alder Flycatcher	*Empidonax alnorum*	S2, X1	5/27/2005	Protected
Least Flycatcher	*Empidonax minimus*	S2, T2	5/27/2005	Protected
Willow Flycatcher	*Empidonax traillii*	FY, X1	6/15/2001	Protected
American Kestrel	*Falco sparverius*	P2, X1	5/18/2005	Protected
Wilson's Snipe	*Gallinago delicata*	X1	5/15/2005	Game Species
Common Yellowthroat	*Geothlypis trichas*	FY, P2	6/13/2001	Protected
Barn Swallow	*Hirundo rustica*	ON	6/20/2001	Protected
Wood Thrush	*Hylocichla mustelina*	X1	6/14/2004	Protected

List of Species Exhibiting Breeding Behavior, 2000-2005

Atlas Blocks 5262A and 5262C

Common Name	Scientific Name	Behavior Code[2]	Date	NY Legal Status
Baltimore Oriole	*Icterus galbula*	FY	6/2/2002	Protected
Dark-eyed Junco	*Junco hyemalis*	FL, X1	7/17/2001	Protected
Hooded Merganser	*Lophodytes cucullatus*	P2	6/4/2000	Game Species
Belted Kingfisher	*Megaceryle alcyon*	FY	6/27/2004	Protected
Red-bellied Woodpecker	*Melanerpes carolinus*	X1	5/7/2002	Protected
Wild Turkey	*Meleagris gallopavo*	FL	7/29/2003	Game Species
Swamp Sparrow	*Melospiza georgiana*	D2, T2	5/27/2005	Protected
Song Sparrow	*Melospiza melodia*	FL, FY	6/4/2000	Protected
Northern Mockingbird	*Mimus polyglottos*	FY	7/20/2001	Protected
Black-and-white Warbler	*Mniotilta varia*	FY, S2	6/9/2001	Protected
Brown-headed Cowbird	*Molothrus ater*	FL, P2	6/14/2000	Protected
Great Crested Flycatcher	*Myiarchus crinitus*	P2, X1	6/9/2003	Protected
Osprey	*Pandion haliaetus*	P2	5/15/2003	Protected-Special Concern
House Sparrow	*Passer domesticus*	FL	6/9/2003	Unprotected
Indigo Bunting	*Passerina cyanea*	T2, X1	6/4/2000	Protected
Cliff Swallow	*Petrochelidon pyrrhonota*	ON	6/20/2001	Protected
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	FL	7/22/2001	Protected
Downy Woodpecker	*Picoides pubescens*	FL, X1	6/24/2000	Protected
Hairy Woodpecker	*Picoides villosus*	FL, X1	6/5/2000	Protected
Eastern Towhee	*Pipilo erythrophthalmus*	X1	6/14/2004	Protected
Scarlet Tanager	*Piranga olivacea*	P2, S2	6/7/2001	Protected
Black-capped Chickadee	*Poecile atricapillus*	FY, NE	7/9/2002	Protected

List of Species Exhibiting Breeding Behavior, 2000-2005

Atlas Blocks 5262A and 5262C

Common Name	Scientific Name	Behavior Code[2]	Date	NY Legal Status
Common Grackle	*Quiscalus quiscula*	FL, FY	6/4/2000	Protected
Virginia Rail	*Rallus limicola*	T2	5/15/2005	Game Species
Bank Swallow	*Riparia riparia*	ON	6/14/2004	Protected
Eastern Phoebe	*Sayornis phoebe*	FL	6/20/2000	Protected
American Woodcock	*Scolopax minor*	D2, S2	4/20/2002	Game Species
Ovenbird	*Seiurus aurocapilla*	FY, S2	6/10/2000	Protected
Northern Waterthrush	*Seiurus noveboracensis*	S2	5/27/2005	Protected
Eastern Bluebird	*Sialia sialis*	FL	6/2/2001	Protected
Red-breasted Nuthatch	*Sitta canadensis*	S2	5/7/2002	Protected
White-breasted Nuthatch	*Sitta carolinensis*	FL, FY	5/18/2000	Protected
Yellow-bellied Sapsucker	*Sphyrapicus varius*	FY	6/17/2001	Protected
American Goldfinch	*Spinus tristis*	FL, P2	9/19/2000	Protected
Chipping Sparrow	*Spizella passerina*	FY	7/1/2000	Protected
Field Sparrow	*Spizella pusilla*	S2, X1	6/3/2002	Protected
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*	ON	6/14/2004	Protected
Barred Owl	*Strix varia*	X1	7/15/2000	Protected
European Starling	*Sturnus vulgaris*	FY, ON	5/6/2002	Unprotected
Tree Swallow	*Tachycineta bicolor*	FL, ON	6/20/2000	Protected
Carolina Wren	*Thryothorus ludovicianus*	S2	6/7/2001	Protected
Brown Thrasher	*Toxostoma rufum*	P2, S2	6/9/2001	Protected
House Wren	*Troglodytes aedon*	FL, FY	6/18/2000	Protected
American Robin	*Turdus migratorius*	FY, NE	5/6/2002	Protected

List of Species Exhibiting Breeding Behavior, 2000-2005

Atlas Blocks 5262A and 5262C

Common Name	Scientific Name	Behavior Code[2]	Date	NY Legal Status
Eastern Kingbird	*Tyrannus tyrannus*	B2, T2	5/29/2000	Protected
Warbling Vireo	*Vireo gilvus*	S2, T2	5/27/2005	Protected
Red-eyed Vireo	*Vireo olivaceus*	NE, S2	6/14/2001	Protected
Blue-headed Vireo	*Vireo solitarius*	X1	6/15/2004	Protected
Canada Warbler	*Wilsonia canadensis*	X1	6/27/2004	Protected
Mourning Dove	*Zenaida macroura*	FL	7/20/2001	Protected
White-throated Sparrow	*Zonotrichia albicollis*	X1	6/27/2004	Protected

Breeding Bird Atlas

Behavior Code Key Descriptions

Behavior Code	Description	Behavior Category
X1	Species seen in possible nesting habitat or singing male(s) present in breeding season.	Possible
S2	Singing male present on more than one date in the same place.	Probable
P2	Pair observed in suitable habitat in breeding season.	
T2	Bird (or pair) apparently holding territory.	
D2	Courtship and display, agitated behavior, copulation, well developed brood patch, or cloacal protuberance.	
N2	Visiting probable nest site.	
B2	Nest building or excavation of a nest hole.	
DD	Distraction display or injury-feigning.	Confirmed
UN	Used nest found.	
FE	Female with egg in the oviduct.	
FL	Recently fledged young.	
ON	Adults(s) entering or leaving nest site indicating occupied nest.	
FS	Adult carrying fecal sac.	
FY	Adult(s) with food for young or feeding young.	
NE	Nest and eggs, bird on nest or egg, or eggshells beneath nest.	
NY	Nest with young.	

Appendix H

Photographs

Photo 1 – View, to west, of northern hardwood/eastern white pine upland forest and understory, in the central portion of the site.

Photo 2 – View, to northwest, of northern hardwood upland forest, in the central portion of the site.

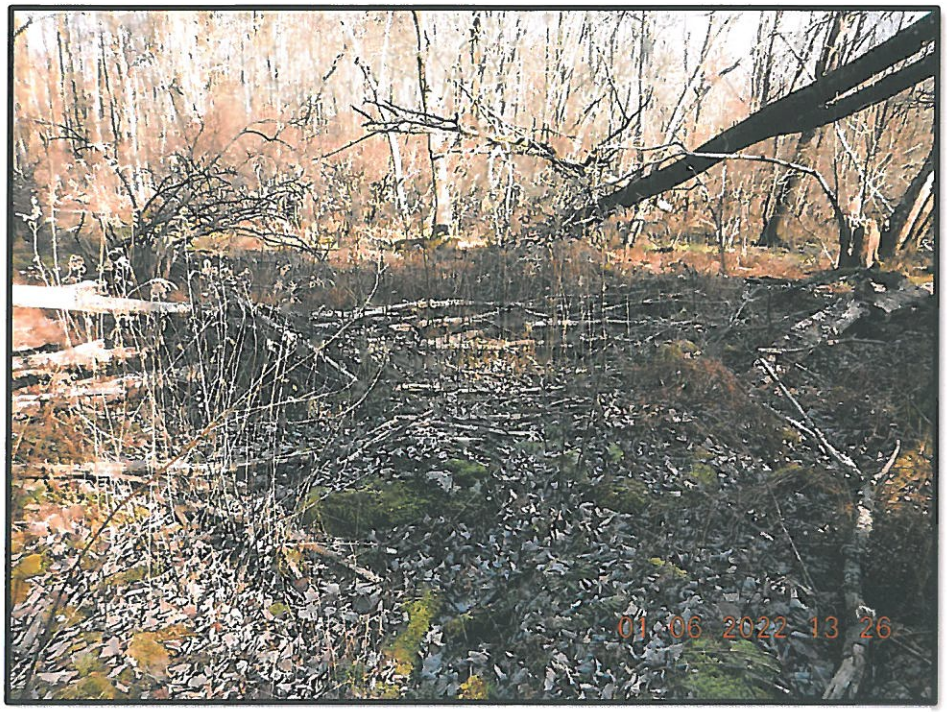

Photo 3 – View, to north, of typical wetland habitat in eastern portion of the site.

Photo 4 – View, to east, of typical headwater seep in western portion of the site.