

# **APPENDIX F**

## ***Habitat Assessment***



A habitat assessment was performed by an Environmental Scientist from C&S Engineers on October 26, 2017 and November 2, 2017 to review the potential of threatened and endangered species habitat within the proposed Griffiss International Airport Obstruction Removal Project Study Area.

### **Existing Vegetative Communities**

In March 2014, the New York State Department of Environmental Conservation (NYSDEC) published a report entitled *Ecological Communities of New York State, Second Edition (Ecological Communities)* as part of the New York Natural Heritage Program inventory. The report is a revised and expanded version of the original 1990 version that lists and describes ecological systems, subsystems, and communities within New York State. The classification was developed to help assess and protect biological diversity of the state. An assessment of the biotic communities within the project area was conducted consistent with the representative characteristics presented in *Ecological Communities*.

Based on review of aerial photography and information collected during C&S's site visit, the study area is made-up of a variety of ecological communities including, but not limited to; successional shrubland, successional northern hardwoods, floodplain forest, shallow emergent marsh, shrub swamp, intermittent streams, marsh headwater stream. The study area also includes several communities identified within the terrestrial cultural subsystem (i.e. mowed lawn, buildings/structures, cropland/field crops, paved/unpaved roads, paved/unpaved path). Ecological Communities defines terrestrial cultural communities as “a subsystem that includes communities that are either created and maintained by human activities, or are modified by human influence to such a degree that the physical conformation of the substrate, or the biological composition of the resident community is substantially different from the character of the substrate community as it existed prior to human influence.”

Further information regarding the communities are presented below:

- **Mowed Lawn:** residential, recreational, or commercial land, or unpaved airport runways in which the groundcover is dominated by clipped grasses and there is less than 30 percent cover of trees and less than 50 percent cover by ornamental and/or native shrubs. The groundcover is maintained by mowing and broadleaf herbicide application. .
- **Cropland/Field Crops:** an agricultural field planted in field crops such as alfalfa, wheat, timothy, and oats. This community includes hayfields that are rotated to pasture.
- **Paved Road/Path:** A road or pathway that is paved with asphalt, concrete, brick, stone, etc. There may be sparse vegetation rooted in cracks in the paved surface.
- **Unpaved Roads/Path:** a sparsely vegetated road or pathway of gravel, bare soil, or bedrock outcrop. These roads or pathways are maintained by regular trampling or

- scraping of the land surface. The substrate consists of the soil or parent material at the site, which may be modified by the addition of local organic material (woodchips, logs, etc.) or sand and gravel. Abandoned railroad beds where tracks have been removed are included here.
- *Rural Structure Exterior* - the exterior surfaces of metal, wood, or concrete structures (such as commercial buildings, barns, houses, bridges) or any structural surface composed of inorganic materials (glass, plastics, etc.) in a rural or sparsely populated suburban area. These sites may be sparsely vegetated with lichens, mosses, and terrestrial algae; occasionally vascular plants may grow in cracks. Nooks and crannies may provide nesting habitat for birds and insects, and roosting sites for bats.
  - *Rock Quarry* – an excavation in bedrock from which building stone (e.g., limestone, sandstone, slate) has been removed. Vegetation may be sparse; plants may be rooted in crevices in the rock surface.
  - *Urban vacant lot* - an open site in a developed, urban area that has been cleared either for construction or following the demolition of a building. Vegetation may be sparse, with large areas of exposed soil, and often with rubble or other debris.
  - *Farm pond/artificial pond* - the aquatic community of a small pond constructed on agricultural or residential property. These ponds typically lack perennially flowing inlets and outlets.
  - *Ditch/artificial intermittent stream* - the aquatic community of an artificial waterway constructed for drainage or irrigation of adjacent lands. Water levels either fluctuate in response to variations in precipitation and groundwater levels, or water levels are artificially controlled. The sides of ditches are often vegetated, with grasses and sedges usually dominant. Non-native or weedy species are common.
  - *Successional Shrubland*: a shrubland that occurs on sites that have been cleared (for farming, logging, development, etc.) or otherwise disturbed. This community has at least 50% cover of shrubs.
  - *Successional Northern Hardwoods*: a hardwood or mixed forest that occurs on sites that have been cleared or otherwise disturbed.
  - *Floodplain Forest*: typically a hardwood forest that occurs on mineral soils on low terraces of river floodplains and river deltas. These sites are characterized by their flood regime; low areas are annually flooded in spring and high areas are flooded irregularly. Some sites may be quite dry by late summer whereas other sites may be flooded again in late summer or early autumn (these floods are caused by heavy precipitation associated with tropical storms). This is a broadly defined community; floodplain forests are quite variable and may be very diverse.

- *Shallow Emergent Marsh*: a marsh meadow community that occurs on mineral soil or deep muck soils (rather than true peat), that are permanently saturated and seasonally flooded. This marsh is better drained than a deep emergent marsh; water depths may range from 15 cm to 1 m (6 in to 3.3 ft) during flood stages, but the water level usually drops by mid to late summer and the substrate is exposed during an average year. This is a very broadly defined type that includes several distinct variants and many intermediates. Shallow emergent marshes are very common and quite variable. They may be codominated by a mixture of species, or have a single dominant species.
- *Shrub Swamp*: a mostly inland wetland dominated by tall shrubs that occurs along the shore of a lake or river, in a wet depression or valley not associated with lakes, or as a transition zone between a marsh, fen, or bog and a swamp or upland community. The substrate is usually mineral soil or muck. A few examples may have a shallow layer of sphagnum peat. This is a very broadly defined type that includes several distinct communities and many intermediates. Shrub swamps are very common and quite variable. They may be codominated by a mixture of species, or have a single dominant shrub species.
- *Intermittent Streams*: the community of a small, intermittent, or ephemeral streambed in the uppermost segments of stream systems where water flows only during the spring or after a heavy rain and often remains longer, ponded in isolated pools. Intermittent streams may be classified as 1st order streams but may be excluded from the stream order scheme, if only perennial streams are classified (i.e., headwater streams are 1st order and intermittent streams have “zero order”). These streams typically have a moderate to steep gradient and hydric soils.
- *Marsh Headwater Stream*: the aquatic community of a small, marshy perennial brook with a very low gradient, slow flow rate, and cool to warm water that flows through a marsh, fen, or swamp where a stream system originates. These streams usually have clearly distinguished meanders (i.e., high sinuosity) and are in unconfined landscapes.

## Threatened and Endangered Species Review

### Natural Heritage

A request was sent to NYSDEC Natural Heritage to identify any rare or state listed animals or plants, or significant natural communities within the project site. A response from Natural Heritage indicated that the Upland Sandpiper (*Bartramia longicauda*) (threatened) has been documented adjacent to the project site and the Whorled Mountain-mint (*Pycnanthemum verticillatum* var. *verticillatum*) (endangered) has been documented within a wetland near the project site.

- **Upland Sandpiper**: Suitable habitat for the Upland Sandpiper consist of level topography with large areas of short grass for feeding and courtship with

interspersed or adjacent taller grasses for nesting and brood cover. In the northeast U.S., airfields currently provide the majority of suitable habitat, though grazed pastures and grassy fields are also used<sup>1</sup>. The existing project area consists of successional northern hardwoods and forested wetlands. The project should not affect the Upland Sandpiper because the project will not impact any tall grass areas which are used for nesting and brood cover. The project will only impact wooded areas that are not considered Upland Sandpiper habitat. Therefore, no direct impacts to this species is anticipated as a result of the Proposed Project.

- **Whorled Mountain-mint:** In New York, Whorled Mountain-mint has been found in fens, inter-dunal swales, and other open, calcareous wetlands, usually on wet sandy substrates<sup>2</sup>. The existing project area consists of successional northern hardwoods and forested wetlands. As stated in the correspondence letter from Natural Heritage, the species has been documented within a wetland located near the project site. Based on C&S's habitat assessment, proposed project areas do not contain potential Whorled Mountain-mint habitat (i.e., fens, inter-dunal swales, open, calcareous wetlands) and the Proposed Project does not include work within the wetland area that was identified by the NYNHP as a documented Whorled Mountain-mint habitat. Therefore, no direct impacts to this species is anticipated as a result of the Proposed Project.

### United States Fish & Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) Information, Planning and Conservation (IPac) System was reviewed to identify any federally threatened or endangered species within the project area. The IPaC system listed the Northern Long-eared Bat (*Myotis septentrionalis*) (threatened) within the project area.

- **Northern Long-eared Bat (NLEB):** Suitable summer habitat for NLEB consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags  $\geq 3$  inches dbh that have exfoliating bark, cracks, crevices, and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit characteristics of suitable roost trees and are within 1000 feet of other forested/wooded habitat. NLEB has also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. NLEBs typically occupy their summer habitat from mid-May through mid-August each year and the species may arrive or leave some time before or after this period.

<sup>1</sup> NYNHP: Upland Sandpiper: <http://acris.nynhp.org/guide.php?id=6861&part=2>

<sup>2</sup> NYNHP: Whorled Mountain-mint: Upland Sandpiper: <http://acris.nynhp.org/guide.php?id=9147&part=2>

Based on C&S's habitat assessment, the Project Area contains successional northern hardwoods and forested wetlands. C&S identified these areas as potential NLEB habitat. Since the project proposes cutting 68 acres of trees and there is potential NLEB habitat within the proposed project area, the project may impact NLEB. Based on USFWS Northern Long-eared bat 4(d) Rule, an incidental take from tree removal activities is not prohibited unless it results from removing known occupied maternity roost tree or from tree removal activities within 150 feet of a known occupied maternity roost tree from June 1 through July 31 or results from tree removal activities within 0.25 mile of a hibernaculum at any time. Correspondence with Natural Heritage did not indicate the presence of a NLEB occupied maternity roost tree or a hibernaculum within or near the project area. (see **Appendix F**). Also, all tree clearing activity will take place from October 31 through March 31. Therefore, no direct impacts to this species is anticipated as a result of the Proposed Project.

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