

**Threatened/Endangered Species
Habitat Assessment
for
Amenia Free Library Association
3309 Route 343**

Application Date: September 24, 2018

Applicant Information:

Applicant: Amenia Free Library Association
Address: 3309 Route 343, Amenia, NY 12501
Telephone: (845) 8373-8273

Applicant's Professional:

Engineer: Renna Engineering Design, PLLC
Address: PO Box 400, Dover Plains, NY 12522
Telephone: (845) 877-0555

1.0 Project Description:

The applicant is proposing to expand the existing 886 S.F. library with a 1,904 S.F. addition to the western side of the building and 67 S.F. vestibule to the existing southern entrance. The proposed additions will increase the library's current capacity and provide space for additional work stations, bookshelves, and restroom facilities. The proposed additions would allow for the construction of a children's reading area and book drop-off box. The proposed project also calls for the improvement of an existing parking area, which is located to the west of the proposed addition. Further improvements also include the addition of a permeable patio area towards the rear of the structure, as well as the installation of a new wastewater disposal system and 1,000-gallon propane tank.

As part of the initial review for the proposed project the New York State Environmental Resource Mapper and Short Environment Assessment Form identified that the site was in proximity of possible habitat of several threatened or endangered species, the Timber Rattle Snake and the Bog Turtle. After an initial analysis of the proposed project site, it is evident that the site, as well as it's neighboring parcels, do not contain either of the above referenced threatened/endangered species because they are fully developed urban parcels that do contain the necessary habitat. The subsequent sections of this report provide details outlining the justification for the following conclusion.

2.0 Timber Rattlesnake (*Crotalus Horridus*)

2.1 Description

Measuring from 3-4.5 feet (91-137 cm) or more in length, the Timber Rattlesnake is the largest venomous snake in New York. The record length is 74 ½ inches (189 cm). Timber rattlers impress one as being very stocky, large snakes. Despite their size, cryptic coloration allows them to be easily concealed. Two color patterns are commonly found: a yellow phase, which has black or dark brown crossbands on a lighter background color of yellow, brown or gray, and a black phase, which has dark crossbands on a dark background. Black or dark brown stippling also occurs to varying degrees, to the extent that some individuals appear all black. Scales are ridged, giving this rattlesnake a rough-skinned appearance. The timber rattler has a broadly triangular head with many small scales on the crown of the head bordered by a few large scales.

**Threatened/Endangered Species
Habitat Assessment
for
Amenia Free Library Association
3309 Route 343**

2.2 Timber Rattlesnake Habitat

The range of the Timber Rattlesnake extends from southern New Hampshire south through the Appalachian Mountains to northern Georgia and west to southwestern Wisconsin and northeastern Texas. Populations were once found on Long Island and in most mountainous and hilly areas of New York State, except in the higher elevations of the Adirondacks, Catskills and Tug Hill region. They are now found in isolated populations in southeastern New York, the Southern Tier and in the peripheral eastern Adirondacks.

Timber Rattlesnakes are generally found in deciduous forests in rugged terrain. In the summer, gravid (pregnant) females seem to prefer open, rocky ledges where temperatures are higher, while the males and non-gravid females seem to prefer cooler, thicker woods where the forest canopy is more closed.

2.3 Habitat Site Analysis

The proposed project site is located just off of NYS Route 343, in downtown Amenia NY. The site is flanked on all sides by residential and commercial development, which provides no suitable habitat for the Timber Rattlesnake, nor do the surrounding sites offer suitable migratory pathways that would allow the snake to be present, even in passing, on the site. The site is relatively flat, with an average grade of 3-4% throughout the entire site, and contains no rock outcroppings or dense forest areas that would offer suitable habitat for the Timber Rattlesnake.

Due to the proposed project site and its neighboring parcels being absent of suitable habitat, the applicant of the proposed project should be exempt from further threatened/endangered species studies concerning the Timber Rattlesnake.

3.0 Bog Turtle

3.1 Description

The Bog Turtle, which is often recognized as one of the smallest turtles in North America, can range in length from 100-115 millimeters. Bog Turtles typically vary from a light brown to a dark ebony color and are often identified by bright orange blotches on either side of its head. The carapace of a Bog Turtle is moderately domed and can have a pattern of radiating lines or be a uniform brown color. The sides of the Bog Turtle's carapace run parallel with one another, giving the turtle an elongated appearance. The plastron of the Bog Turtle will often vary in color, having no distinct or uniform appearance.

3.2 Bog Turtle Habitat

Bog Turtles usually occur in small, discrete populations, generally occupying open-canopy, herbaceous sedge meadows and fens bordered by wooded areas. These wetlands are a mosaic of micro-habitats that include dry pockets, saturated areas, and areas that are periodically flooded. Bog Turtles depend upon this diversity of micro-habitats for foraging, nesting, basking, hibernation and shelter. Unfragmented riparian systems that are sufficiently dynamic to allow the natural creation of open habitat are needed to compensate for ecological succession. Beaver, deer, and cattle may be instrumental in maintaining the open-canopy wetlands essential for this species' survival.

**Threatened/Endangered Species
Habitat Assessment
for
Amenia Free Library Association
3309 Route 343**

Three zones were developed by the U.S. Fish and Wildlife Service to provide recommended uses for land that containing possible Bog Turtle habitat.

- Zone 1: Immediate Bog Turtle habitat consisting of wetlands and visible spring seeps actively occupied by Bog Turtles.
- Zone 2: Any area within 300' of the boundary of Zone 1, including upland areas adjacent to Zone 1. Developed primarily as a recommend buffer to limit activities on undisturbed land around existing Bog Turtle habitat.
- Zone 3: Upland, wetland, and riparian areas extending to the geomorphic edge of the drainage basin or at least one-half mile beyond the boundary of Zone 2.

While areas classified as Zone 1 are require to conduct studies and provide mitigation, lands located within Zone 2 and 3 are exempt from such requirements as they are considered buffer areas, rather than suitable turtle habitat. Further studies and review are not needed for lands located within these zones, especially if these areas have been previously developed.

3.3 Habitat Site Analysis

As previously stated, the proposed project site and surrounding parcels are located in downtown Amenia, the central business hub for the town. The proposed addition is situated on a developed parcel that contains no wetlands or suitable Bog Turtle habitat. NYS Route 343 runs along the entire southern portion of the proposed project parcel, while commercial and residential properties abut the northern, eastern, and western borders of the project site.

The nearest wetland, based on GIS mapping, is located greater than 250 feet away from the project parcel which puts the proposed project site within potential range of the previously mentioned recommended Zone 2. It should be noted that the Zone 2 recommendations are for areas that have limited or zero existing development. The proposed project site is currently surrounded by existing, and in many cases much larger development, with a NYS highway and several residential/commercial structures located in between the site and the supposed Bog Turtle habitat, making any recommendations offered by the Zone 2 area unrealistic. The highway and existing development are considered to be significant natural barriers for the Bog Turtle and as such establish

Due to the fact that the proposed project site does not contain Bog Turtle habitat and that the nearest potential habit is located greater than 250 feet away, with significant development occurring in between the two areas, the proposed project should be exempt from further threatened/endangered species studies concerning the Bog Turtle.

4.0 References

- Klemens, Micheal. 2001. Bog Turtle (*Clemmys Muhlenbergii*) Northern Population Recover Plan. USFWS. Hadley, Massachusetts
- Brown, W. S. 1987. Hidden Life of the Timber Rattlesnake. National Geographic, July.
- Brown, W. S. 1993. Biology, Status, and Management of the Timber Rattlesnake (*Crotalus horridus*): A Guide for Conservation. SSAR Herp. Circular No. 22.
- Conant, R. and J. T. Collins. 1998. A Field Guide to Reptiles and Amphibians of Eastern and Central North America. Third Edition Expanded. Houghton Mifflin Co., Boston.
- Harding, J. H. 1997. Amphibians and Reptiles of the Great Lakes Region. The University of Michigan Press, Ann Arbor.

**Threatened/Endangered Species
Habitat Assessment
for
Amenia Free Library Association
3309 Route 343**

- Klauber, L. M. 1972. Rattlesnakes: Their Habitat, Life Histories and Influence on Mankind. Zoological Soc. of San Diego. Univ. of California Press, Berkeley.
- Tynning, T. F. 1990. Stokes Nature Guides: A Guide to Amphibians and Reptiles. Little, Brown and Co., Boston.
- Tynning, T. F., Ed. 1992. Conservation of the Timber Rattlesnake in the Northeast. Massachusetts Audubon Society, Lincoln.
- Drawing by Jean Gawal