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Town of Ulster
Attn: Rory Lee
584 East Chester Ext.
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Re: Habitat Assessment Letter ,1530 Route 9W, Lake Katrine, NY

Passero Associates has completed a desktop review and on-site field species habitat survey for a proposed project located at 1530 Route 9W, Lake Katrine, Ulster County, NY 12449 (Tax IDs: 48.8-1-1.110 and 48.8-1-1.120). Data was collected from the U.S. Fish and Wildlife Information for Planning and Consultation (IPAC), New York State Department of Environmental Conservations (NYSDEC) Environmental Resource Mapper, United States Department of Agriculture Forest Service (USDAFS) and the New York National Heritage Program (NYNHP).

The NYSDEC's Environmental Assessment Form (EAF) Mapping Tool was utilized to complete the Environmental Assessment Form, which is a key component of the environmental review process for projects in New York State. This tool uses several databases to provide essential information needed to complete the environmental assessment form. The EAF Mapping Tool identified the monarch butterfly (*Danaus Plexippus*) and the Northern long eared bat (*Myotis septentrionalis*) as species of concern for the project area.

A regulatory review using the IPAC database generated an official species list which contained the Indiana bat (*Myotis sodalist*), the northern long eared bat (*Myotis septentrionalis*), the tricolored bat (*Perimyotis subflavus*), the monarch butterfly (*Danaus Plexippus*), the bald eagle (*Haliaeetus leucocephalus*) and the golden eagle (*Aquila chrysaetos*). The Mapping Tool and the official species list generated by IPAC served as a guide for potential species habitat which could be impacted by the proposed project for on-site review.

Following the on-site habitat assessment, a full consultation package was created with the USFWS. The western portion of the project site contains habitat which appears to match that of all three bat species mentioned above. However, habitat found upon an on-site review of the project site did not appear to match or resemble criteria for the monarch butterfly, bald eagle, or golden eagle.

Indiana Bat

The Indiana bat is a medium sized migratory, small insectivorous bat. This species is listed as endangered and has critical habitat which does not overlap with the project location. The Indiana bat is often identified by its dull chestnut fur and delicate hind feet. During the spring and summer months, Indiana bats prefer dead or dying trees (snags) with exfoliating bark, but a small fraction have been found in live trees. This species shows an affinity for very large trees that receive lots of sunlight. Live roost trees commonly utilized

by the Indiana bat include shagbark hickory, silver maple, and white oak. Although Indiana bats primarily roost under loose bark, a small fraction roost in tree cavities.

The Indiana bat will commonly hibernate in caves or mines during the winter months. During the spring, reproductive females will migrate as far as to midwestern areas of the United States to form maternity colonies to raise their young. Females return to the same maternity colony each year, and these areas can be completely forested or highly fragmented. Males and nonreproductive females will often stay close to hibernaculum (an area in which they hibernate) and in the eastern portion of the U.S., reproductive females will return to this area in the late summer and early fall months to mate and then enter hibernation. While the designated critical habitat of this species does not overlap with the project site, this does not rule out presence of the Indiana bat. Several tree species matched the habitat criteria for the Indiana bat, including various deciduous hardwood trees such as white oak and shagbark hickory. Various trees with exfoliating bark, snags, and trees which contained large crevices or cracks were also prevalent.

The primary concern for population declines for the Indiana bat is human disturbance during hibernation, loss of summer habitat and White Nose Syndrome (WNS) which is a fungal disease which has been catastrophic for many species of North American bats.

Northern Long-Eared Bat

The northern long eared bat or NLEB, is a wide-ranging, medium sized bat around 3-4 inches in length. The NLEB is listed as endangered, and critical habitat has not been designated for this species. The NLEB is often identified by its long ears which extend at least 3 millimeters beyond the tip of its nose when flattened, compared to other bat species. This species will typically hibernate during the winter months in caves or mines, and spend spring, summer, and early fall in forested habitats. This species of bat can be found roosting singly or in colonies underneath loose bark or within cavities or crevices in both live and dead trees.

While there is not a specific species of tree the NLEB prefers, they will often roost in deciduous hardwood species. The NLEB primarily can be found in old growth forests, consisting of trees which are 100 years or older. This species favors partially dead or dying trees to forage and rear their young. This species is not considered to be migratory, but many groups and individuals have been found to travel considerable distances between hibernation sites and summer roosting areas.

An onsite species survey of the project site revealed several areas of concern for roosting habitat criteria which matched that of the NLEB. Old growth deciduous trees with peeling bark or defects were noted in the western portion of the site. Additionally, many trees within this area contained large crevices or cracks suitable for maternal roosting.

Like the Indiana bat, WNS has spread rapidly throughout the species' range in the United States. The first symptoms were observed and recorded in New York State in 2006. The population of northern long-eared bats has been estimated to have declined by over 90% due to WNS. Due to continued and increased population declines, on November 29, 2022, the U.S. Fish and Wildlife Service found that the species met the definition of an endangered species and published a final rule to reclassify the northern long-eared bat as endangered under the Endangered Species Act.

Tricolored Bat

The tricolored bat is a small insectivorous bat often distinguished by its unique tricolored fur which appears yellowish orange. This species is proposed endangered and does not currently have designated critical habitat. During the winter months, tricolored bats can be found hibernating in caves or abandoned mines but have also been associated with roosting in road culverts where they exhibit shorter hibernation periods and forage during warmer nights.

During the spring, summer, and fall, this species of bat can be found in forested habitats where they roost in both live and dead trees. Deciduous hardwood trees appear to be the preferred tree for roosting for the tricolored bat, but they have also been found in Spanish moss, pine trees, and the occasional human structure. Various pine trees as well as species of oak were noted at the project site. Habitat criteria for the tricolored bat is very similar to the Indiana bat and the NLEB.

In New York State, tricolored bat populations have declined approximately 96% from 2007 to 2015. Since 2015, the population has remained relatively stable. Much like the Indiana bat and NLEB, The primary cause of decline in population for this species in WNS.

Monarch Butterfly

The Monarch Butterfly is a relatively large and well-known species of butterfly which is commonly identified by its bright orange wings surrounded by a black border and white spots. During the breeding season, monarchs will lay eggs on what is known to be their obligatory host plant, the milkweed (primarily Asclepias spp). This species is listed as a candidate for consideration for official listing but has not yet been listed as endangered. For this reason, the USFWS recommends agencies take advantage of any opportunity to conserve this species.

The milkweed plant is essential for the monarch butterfly's habitat, because they can only lay eggs on this specific plant species. In many regions where this species is present, they will breed year-round, but in areas such as eastern North America, monarchs will migrate long distances in the fall to avoid colder temperatures. Migration can take this species over 1800 miles and last for over two months. In the early spring, they will return to their original sites.

Based on the onsite species survey, there is little concern for impact on the monarch butterfly. The habitat on the project site does not match that of this species. Milkweed was not noted in any of the areas where the project site could potentially disturb plant life, and therefore minimal impact to this species is expected.

Bald Eagle

The bald eagle is a large predatory bird with a wingspan of about 7 feet. Adults have a dark brown body and wings with a white head and tail. Their feet and beak are a bright yellow color. The bald eagle is not a Bird of Conservation Concern (BCC) within the project area, however IPAC noted that this species should still be considered for a species survey due to the Eagle Act, and concerns for potential susceptibilities in offshore aeras from certain types of activities.

Bald eagles typically require habitat that is within two and a half miles of the coast, bays, rivers, lakes, or other large bodies of water. They will typically nest in forested areas, staying away from heavily developed areas when possible. Bald eagles prefer tall, mature coniferous or deciduous trees. Bald eagles partially migrate, if there is available water and food resources, the species tends to occupy a territory year-round. However, many eagles will migrate south or to the coasts during the winter months in search of food. Bald eagles build some of the largest of all bird nests, typically 5 to 6 feet in diameter. These eagles prefer the tallest trees with limbs that can support up to 1,000 pounds. Their nest sites usually feature at least one perch with an unobstructed view of the water.

Although the project site includes some trees that could potentially support bald eagle habitat, several factors make it unlikely that this species would be attracted to the area. Bald eagles generally avoid heavily developed regions, and the surrounding area is significantly developed. Additionally, the constant noise from Route 209 is audible throughout the project site, further diminishing its appeal as a suitable habitat for bald eagles. Therefore, it is improbable that the proposed action will impact this species.

Golden Eagle

Golden eagles can be found worldwide, like bald eagles, they are a predatory bird species with a large wingspan which can range up to 7 feet in length. Golden eagles are completely brown with golden feathers on their head and neck. Their beaks are dark tipped and have a yellow base. Golden eagles can be found from the tundra to intermittent forested habitats. They are typically found in open and semi-open areas which are in the vicinity of cliffs or bluffs. Golden eagles are often sensitive to human activity and generally avoid developed areas.

Some golden eagles migrate to areas with milder climates during the winter months from the northern tier and northeast of the United States. Others will live within their nesting territory year-round. Migration usually will only occur when there is a lack of food resources within the area. Golden eagles create large nests to raise their young, averaging between 5-6 feet wide and 2 feet high. For this reason, they will often seek open areas with large rocky cliffs or large trees. Common tree species for golden eagle nest sites include pine, cypress and sycamore. This species is not a BCC within the project area, but IPAC warrants attention to this species due to the Eagle Act, and for potential susceptibilities in offshore areas from certain activities.

While the project site does contain trees that could potentially support golden eagle habitat, it is unlikely that this species currently resides in the area. This conclusion is based on several factors. Golden eagles, like bald eagles, are highly sensitive to human activity and generally avoid areas with significant disturbance. The vicinity around the project site is heavily developed, contributing to elevated noise levels, including those from nearby Route 209 at the southern end of the site. Traffic noise, which was observed at various points throughout the project site, would likely be disruptive to golden eagles.

Conclusion and Recommendation

Based on desktop review and on-site habitat assessment, the project site contains suitable habitat for the Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and tricolored bat (*Perimyotis subflavus*). Given the presence of old-growth deciduous trees, snags, and trees with exfoliating bark or crevices—features commonly used by these species for roosting—the site may provide critical habitat. However, no potential hibernacula were observed during the field visit. To minimize potential impacts on

these bat species, it is recommended that tree removal activities be conducted only during the designated hibernation season, as encouraged by the NYSDEC. Specifically, tree cutting should be restricted to the period between November 1st and March 31st, when bats are not expected to be present in summer roosting habitat. Adhering to this seasonal restriction will help reduce the likelihood of direct harm to bat populations and contribute to conservation efforts for these imperiled species.

In addition, no significant impacts to the monarch butterfly, bald eagle, or golden eagle are expected based on the habitat characteristics observed on-site. Therefore, no further conservation measures are necessary for these species at this time.

If you have any questions or require additional information, please contact me at nherzog@passero.com or (585) 760-8559.

Sincerely,

Nathan Herzog

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