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January 7, 2021

VIA EMAIL

Martinez Couch & Associates, LLC
1084 Cromwell Avenue, Suite A-2
Rocky Hill, CT 06067

ATTN: Richard Couch

RE: FEDERALLY LISTED FAUNA

Replacement of Amtrak Bridge over the Connecticut River,
Old Saybrook and Old Lyme, CT

REMA Job No.: 18-2078-OLM2

Dear Mr. Couch:

At your request, REMA Ecological Services, LLC (REMA) has analyzed the potential for several federally-listed fauna occurring within or in the vicinity of the project limits for the above-referenced project.

Red Knot (*Calidris canutus rufa*)

This Federally Threatened species is the largest member of the sandpiper (Scolopacidae) family, 23-25 cm long. The subspecies (*C. c. rufa*) passes along the coast of the northeastern U.S. during migration to and from its breeding grounds in the far north, in the arctic zone. It winters along the coast of far southern South America, (e.g., Patagonia). It develops a striking rufous chest, during breeding season, from March to August, but becomes inconspicuous with a light gray back and whitish undersides during the winter, from October to March. In decline worldwide, its numbers have dropped from about 82,000 in the 1980's to less than 30,000 in 2010.



During spring and fall migration along the Atlantic coast, it feeds in the marine intertidal zone, in coves, estuaries, and inlets, probing the substrate for worms, small crabs, and bivalves with its long straight bill. During fall it is very unlikely to spend time of the Connecticut coast, because it has an extended stay feeding on horseshoe crab eggs in Delaware Bay, before a long flight to Canada. Most sightings in the northeast are in Massachusetts or New Jersey. However, during spring migration in April or May, some individuals could stop over in the site vicinity and feed on river margins in the intertidal zone. They would be easy to recognize, with their brick to salmon-red chest plumage; if disturbed they would move to another nearby estuary or cove.

According to the Cornell Lab of Ornithology on-line database (i.e., eBird), sightings of Red Knot in Connecticut can take place throughout the year, but are usually more frequent from late July to late September. Most of the sightings in the vicinity of the project area have taken place in the general locale of the Great Island Wildlife Area, at the mouth of the Connecticut River, and are concentrated at least $\frac{3}{4}$ of a mile south of the project limits. The most recent sighting was on August 15th, 2020, at Griswold Point, which is roughly 2.1 miles from the project limits. Other sighting dates for red knot were June 7th, 2019, May 29th, 2017, and August 29th, 2014.

In reviewing the preferred habitats utilized by this species during its non-breeding occurrences in Connecticut, as well as its recorded distribution, it is *highly unlikely* that red knot would utilize any of the habitats within or adjacent to the project limits. Moreover, this species was not observed during fieldwork by REMA scientists in 2018, 2019, and 2020.

Roseate Tern (*Sterna dougallii dougallii*)

This is a Federally Endangered tern species in the Staninae subfamily of the Laridae family. 33-41 cm long, including the long feathers of its deeply forked tail, it is striking avian with a black cap and mask and a rosy pink chest, when its plumage is fresh. Worldwide there are three subspecies of which *S. d. dougallii* breeds on small islands of the coast of the northeastern US and Nova Scotia. This subspecies nest in colonies on sand/gravel beaches or pebbly/rocky off-shore island, lays only 2 eggs per clutch, and populations were seriously threatened by egg predation by seagulls, but populations are now recovering due to active predator control on nest islands, some off Long Island, and some off Massachusetts and further north. In 2013 the total number of nesting pairs was estimated to be 3,200. This is a deep-diving tern that feeds on schools of small fish. It spends the winter feeding in the open ocean off the eastern and northern coast of South America.



This species is also listed as “endangered” in Connecticut, where the third largest North American colony exists on Falkner Island, now part of the Stewart B. McKinney National Wildlife Refuge, with up to 200 pairs of nesting birds. Other smaller islands in the New London area have been used for breeding by roseate terns in the past.

According to the Cornell Lab of Ornithology on-line database (i.e., eBird), sightings of roseate tern can take place May through September. Most of the sightings in the vicinity of the project area have taken place in the general locale of the Great Island Wildlife Area, at the mouth of the Connecticut River, and are concentrated at least $\frac{3}{4}$ of a mile south of the project limits. The most recent sighting was on August 29th, 2020, at Griswold Point, which is roughly 2.1 miles from the project limits. This is considered the local “hot spot” with numerous sightings dating back to 2016.

In reviewing the preferred habitats utilized by this species during its time in Connecticut, as well as its recorded distribution, and its known breeding colonies, it is *highly unlikely* that roseate tern would utilize any of the habitats within or adjacent to the project limits. Moreover, this species was not observed during fieldwork by REMA scientists in 2018, 2019, and 2020.

Northern Long-Eared Bat (*Myotis septentrionalis*)

This tiny federally threatened and Connecticut endangered bat is 3 to 3.7 inches long with a wingspan of 9-10 inches and long pointed ears. Fur on its back is dark to medium brown; belly fur is tawny to pale brown. It spends the winter in caves or mines, tucked into crevices or cracks. It can only survive if temperature and humidity are very stable and there is no internal air circulation. In summer colonies of 30 to 60 females roost and rear their single pups either under bark or in tree cavities, either a living tree or a snag. They forage within forested habitats, flying through the understory, and catching flying insects, like caddisflies, moths, and beetles using echolocation. Pups may be born any time between late May and late July, and take 18-21 days to mature enough to be able to fly.

The species had been declining due to loss of suitable roost trees due to development, logging, or roadside/tracksideside trimming, and due to changes (e.g., temperature or circulation) in winter hibernacula. Populations have plummeted further due to the spread of white-nose syndrome, a fatal bat disease.

In Connecticut, the areas with known hibernacula for long-eared bats have been mapped. The nearest such hibernation site is located in the Town of North Branford, nearly 20 miles

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westerly of the project area. Potential pup rearing trees within the project site do exist in a few locations.

As a precautionary mitigative measure, it is recommended that tree clearing within the project limits should be restricted according with 4(d) rule requirements of the Endangered Species Act (ESA), associated with the conservation of NLEB. Tree clearing should not occur in the months of June or July, in order to avoid the pup rearing season for not only NLEB but also for other Connecticut-listed bats which may also use potential roosting trees (e.g., hoary and red bats).

Please feel free to contact us with any questions on the above.

Respectfully submitted,

REMA ECOLOGICAL SERVICES, LLC

A handwritten signature in black ink, appearing to read "George T. Logan", with a long horizontal flourish extending to the right.

George T. Logan, MS, PWS, CSE

Registered Soil Scientist/Professional Wetland Scientist

Certified Senior Ecologist

References:

Baker, A., P. Gonzalez, R. I. G. Morrison, and B. A. Harrington (2020). Red Knot (*Calidris canutus*), version 1.0. In Birds of the World (S. M. Billerman, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA.

Gochfeld, M. and J. Burger (2020). Roseate Tern (*Sterna dougallii*), version 1.0. In Birds of the World (S. M. Billerman, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA.

CT DEEP. Species Fact Sheet: Roseate Tern (*Sterna dougallii*). Natural Diversity Data Base.

U.S. Fish and Wildlife Service in the Midwest, Fact Sheet: Northern Long-Eared Bat (*Myotis septentrionalis*). Last updated: March 31, 2020. Midwest Region Endangered Species 5600 American Blvd. West, Suite 990, Bloomington, MN