



Biological Resources/Endangered Species

After reviewing the USFWS Endangered Species Database to identify federally protected threatened and endangered species in McAlester, Oklahoma. The following federally protected threatened and endangered species are identified for the project site in McAlester, Oklahoma:

Common Name	Scientific Name	Federal Status	Record Status
Avian:			
Least Tern	<i>Sterna antillarum</i>	Endangered	Current
Piping Plover	<i>Charadrius melodus</i>	Threatened	Current
Red Knot	<i>Calidris canutus rufa</i>	Threatened	Current
Insect:			
American Burying Beetle	<i>Nicrophorus americanus</i>	Endangered	Current
Mammals:			
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	Threatened	Current

Least Tern (*Sterna antillarum*)

Description: The least tern is the smallest member of the gull and tern family with an approximate length of only 9". The least tern has narrow pointed wings with a wingspan of 20" and a forked tail. Their body is predominantly gray and white, with a black streak on the top of the head. Least terns are unique when compared to other members of its family because they dive into water for prey.

Habitat: Least terns can use a wide array of habitat types for foraging that includes large rivers, lakes, ponds, and shallow wetlands. Least terns arrive in Oklahoma at breeding sites in April and spend 4-5 months. They nest in small colonies on exposed salt flats, river sandbars or reservoir beaches. They require a very specific nesting habitat, one of open sand and gravel areas. In addition to specific nesting habitat requirements, the least tern also tend to nest in colonies of 2 to 70 pairs. This type of behavior requires large swathes of sandy, vegetation devoid ground.

Conclusion: Based on the lack of foraging, and complete lack of sand or gravel substrate for nesting this site is undesirable, and probably unusable, for the least tern. Therefore, it is our opinion that the proposed project will have no effect on the least tern.



Piping Plover (*Charadrius melodus*)

Description: The piping plover is a stocky shorebird that is approximately 5.5” inches in length with a wingspan of 19”. The plover is sand-colored with a white underside and orange legs. Adults have a black forehead and breast band as well as an orange bill with a black tip during breeding season.

Habitat: Piping plovers prefer mudflats as well as sandbars in order to forage for invertebrate prey. They appear in Oklahoma from March to May and again July to September and use the state as a stopover site, not typically as a breeding ground.

Conclusion: This location is outside the critical habitat for this species. Based on the minimal aquatic environment with densely vegetated edges, along with the lack of mudflats for foraging, this habitat is not suitable for the piping plover. In addition, the complete lack of sandy substrate for nesting renders this site undesirable. Therefore, it is our opinion that the proposed project will have no effect on the piping plover.

Red Knot (*Calidris canutus rufa*)

Description: A migratory shorebird 9-10” in length with a 23” wingspan. It has a rust-colored head, neck, and belly during breeding season. This bird migrates from its summer breeding grounds in the Arctic Tundra to Chile where the bird overwinters.

Habitat: Rufa red knot forage on mudflats and search for mollusks, invertebrates, and seeds. Long distant migrants typically do not stopover in Oklahoma; however, inclement weather events sometimes ground them. Of note - fewer than five birds are seen in Oklahoma, annually.

Conclusion: Fewer than five birds are reported in Oklahoma annually, with those reports, 85% have been during the bird’s fall migration from the Arctic Tundra. Ideal foraging habitat for the rufa red knot is very limited in Oklahoma with preferred sites on mudflats with abundant mollusks, invertebrates, and seeds. The project site lacks exposed mudflats for foraging which renders this habitat unsuitable for the red knot. Consequently, it is our opinion that the proposed project will have no effect on the rufa red knot.



American Burying Beetle (*Nicrophorus americanus*)

Description: The American burying beetle is a large beetle, approximately 1-2' in length. It has an overall shiny black coloration and four red-orange markings on its back as well as a prominent red-orange coloration on the area between the head and wing covers.

Habitat: American burying beetle prefers open, oak-hickory forests with native grass cover. They can also be found in close-canopied forests and tallgrass prairies. They need access to suitable soils for carcass burial and a diverse small mammal or bird community to prey upon.

Conclusion: The American burying beetle has been located in 6 locations near the project location. It is our opinion that the proposed project will have may effect the American burying beetle or any of its habitat. An ABB survey was completed in August 2019 and is included with this package.

Northern Long-eared Bat (*Myotis septentrionalis*)

Description: The northern long-eared bat is a medium-sized bat about 3 to 3.7 inches in length but with a wingspan of 9 to 10 inches. The species is distinguished by its long ears. Their fur color can be medium to dark brown on the back and tawny to pale-brown on the underside.

Habitat: The species spend winter hibernation in caves and mines with constant temperatures, high humidity and no air currents. During the summer the species roost singly or in colonies underneath bark, in cavities or in crevices of both live trees and snags. The species emerge at dusk to feed. The primarily fly through the understory of forested areas feeding on moths, flies and other insects.

Conclusion: The Northern Long-eared bat is unlikely to be found at this project site as there are limited forests, ponds, streams, or caves in the area. According to the Oklahoma Natural Heritage Inventory, they have no NLEB records in the project vicinity. It is our opinion that the proposed project will have no effect on the Northern Long-eared bat or any of its habitat.