

SPECIES ANALYSIS SUMMARY

Project Name: FM 812

CSJ(s): 1149-01-023

County	Taxon	Common Name	Scientific Name	Habitat	Suitable Habitat Present?	Explanation for determination regarding suitable habitat	Federal Status	Effect/Take Determination for Federally Listed Species	State Status	Impact Determination for State-Listed Species	Explanation for Effect/Take and/or Impact Determination	Presence/Absence survey conducted?
Travis	Amphibians	Austin Blind Salamander	<i>Eurycea waterlooensis</i>	The species is only known to occur at Barton Springs in Austin, Texas, and subterranean habitats of the Edwards Aquifer below the surface of Barton Springs. Its range is limited to south of the Colorado River, and it co-occurs with the Barton Springs salamander (<i>Eurycea sosorum</i>).	N	According to NWI data and aerial imagery, the project area does not contain suitable habitat for this species. This species requires specific water quality parameters not found within the project limits. Additionally, the project area is approximately 9 miles southeast of Barton Springs and is not within the Barton Springs Segment of the Edwards Aquifer.	E	No effect or take	E	No impact	No suitable habitat present. In addition, the project area is outside of the known range for this species.	N
Travis	Amphibians	Barton Springs Salamander	<i>Eurycea sosorum</i>	The species is only known to occur at Barton Springs in Austin, Texas, and subterranean habitats in the Barton Springs Segment of the Edwards Aquifer. "Surface" habitat for the Barton Springs salamander refers to the spring pools and spring runs where the Barton Springs salamander is observed as opposed to its subsurface aquifer habitat. The Barton Springs salamander inhabits relatively stable aquatic environmental conditions. These conditions consist of perennially flowing spring water that is generally clear, clean, mostly neutral (pH about 7), and stenothermal (narrow temperature range) with an annual average temperature of about 70° to 72° F. Flows of clean spring water with a relatively constant, cool temperature are essential to maintaining the well-oxygenated water necessary for salamander respiration and survival. Dissolved oxygen concentrations average about 6 mg/l.	N	According to NWI data and aerial imagery, the project area does not contain suitable habitat for this species. This species requires specific water quality parameters not found within the project limits. Additionally, the project area is approximately 9 miles southeast of Barton Springs and is not within the Barton Springs Segment of the Edwards Aquifer.	E	No effect or take	E	No impact	No suitable habitat present. In addition, the project area is outside of the known range for this species.	N

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Bastrop	Amphibians	Houston Toad	<i>Anaxyrus (Bufo) houstonensis</i>	The species inhabits areas with deep, friable, sandy soils that contain varying degrees of overstory vegetation. There is a very strong correlation between Houston toad sites and the occurrence of deep (>40 inches) sandy soils in more or less contiguous zones of greater than 20,000 acres. All existing, known Houston toad populations occur within two separate bands of geologic formations, which contain the deepest surface sands in the region. Within Bastrop County, these formations include the Sparta Sand, Weches Formation, Queen City Sand, Recklaw Formation, and Carrizo Sand. To the southeast in Lavaca, Austin, and Colorado counties lies the other band of Houston toad habitat, which includes the Willis and Goliad formations. Vegetative cover within Houston toad habitat usually contains some degree of forested vegetation. Loblolly pine (<i>Pinus taeda</i>) and post oak (<i>Quercus stellata</i>) are common overstory species.	N	According to July 2022 field visits, NWI imagery, the project area does not contain suitable habitat for this species. Only a small portion of the project area is wooded. This area does not contain Loblolly pine and is primarily underlain by clay/loam soils. There is no suitable habitat for this species within the project area. Additionally, there are no records of this species south of the Colorado River in Bastrop County.	E	No effect or take	E	No impact	No suitable habitat present.	N
Travis	Amphibians	Jollyville Plateau Salamander	<i>Eurycea tonkawae</i>	Surface populations occur in springs of the Jollyville Plateau and springs of nearby Brushy Creek. Optimal habitat includes springs, spring-fed streams, and caves with flowing water.	N	According to NWI data and aerial imagery, the project area does not contain suitable habitat for this species. This species requires specific water quality parameters not found within the project limits. This species is only known from springs & waters of some caves north of the Colorado River. The project is located east of the Edwards Aquifer and approximately five miles south of the Colorado River.	T	No effect or take	T	No impact	No suitable habitat present. In addition, the project area is outside of the known range for this species.	N

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Travis	Arachnids	Bee Creek Cave Harvestman	<i>Texella reddelli</i>	This subterranean obligate species inhabits karstic features within the Edwards Limestone Formation. It is known from Tooth, Bee Creek, McDonald, Weldon, and Bone Caves, and possibly Root Cave, in Travis and Williamson Counties.	N	According to a review of the karst zones and July 2022 field visits, the project area does not contain suitable habitat for this species. This project is located east of the demarcated karst zones and primarily occurs in the Kemp Clay, Corsicana Marl, Neylandville Formation, and Marlbrook Marl rock unit.	E	No effect or take	—	N/A	No suitable habitat present. The project area is located east of the designated karst zones.	N
Travis	Arachnids	Bone Cave Harvestman	<i>Texella reyesi</i>	A subterranean obligate, the species occurs in small isolated karstic features within the Edwards Limestone Formation. Sensitive to low humidity and temperature, it is found under large rocks in dark cool parts of caves. It is known from 203 different caves and six karst fauna regions in Travis and Williamson Counties.	N	According to a review of the karst zones and July 2022 field visits, the project area does not contain suitable habitat for this species. This project is located east of the demarcated karst zones and primarily occurs in the Kemp Clay, Corsicana Marl, Neylandville Formation, and Marlbrook Marl rock unit.	E	No effect or take	—	N/A	No suitable habitat present. The project area is located east of the designated karst zones.	N

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Travis	Arachnids	Tooth Cave Pseudoscorpion	<i>Tartarocreagris texana</i>	This subterranean obligate species inhabits karstic features within the Edwards Limestone Formation. It is known from five caves in the Jollyville Plateau karst fauna Region in Travis County, including Tooth and Amber Caves.	N	According to a review of the karst zones and July 2022 field visits, the project area does not contain suitable habitat for this species. This project is located east of the demarcated karst zones and primarily occurs in the Kemp Clay, Corsicana Marl, Neylandville Formation, and Marlbrook Marl rock unit.	E	No effect or take	—	N/A	No suitable habitat present. The project area is located east of the designated karst zones.	N
Travis	Arachnids	Tooth Cave Spider	<i>Neoleptoneta myopica</i>	This subterranean obligate species inhabits karstic features within the Edwards Limestone Formation. It is known only from 13 caves in the Jollyville Plateau and McNeil/Round Rock karst fauna regions in Travis and Williamson counties.	N	According to a review of the karst zones and July 2022 field visits, the project area does not contain suitable habitat for this species. This project is located east of the demarcated karst zones and primarily occurs in the Kemp Clay, Corsicana Marl, Neylandville Formation, and Marlbrook Marl rock unit.	E	No effect or take	—	N/A	No suitable habitat present. The project area is located east of the designated karst zones.	N

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Bastrop, Travis	Birds	Black Rail	<i>Laterallus jamaicensis</i>	Black rails are year-round residents of the central and upper coast and migrants in the eastern part of the state. The species nests in salt, brackish, and freshwater marshes, pond borders, wet meadows, and wetlands with hydrophytic grass species. Water depth is an important and key habitat component, as the species typically is found where water is less than two to four centimeters deep. Other significant habitat factors may include vegetation density, distance to open water, and water regime stability. Nesting typically occurs in the highest sections of the marsh, which have mesic to hydric soils and are flooded by only the highest tides. Nests are built in areas with saturated or shallowly flooded soils and dense vegetation on damp ground, on mat of previous year's dead grasses, or over shallow water. In salt or brackish marshes, typical habitat includes dense stands of cordgrasses (<i>Spartina</i> sp.), spikegrasses (<i>Distichlis</i> sp.), and needlerush (<i>Juncus</i> sp.), or, in more upland saltbush communities along marsh edges. Typical freshwater habitat includes species such as cattail (<i>Typha</i>) and bulrush (<i>Scirpus</i> sp.). Non-breeding habitat is thought to be similar to breeding habitat.	N/A	In Texas, the Black Rail breeds and winters in high quality coastal marsh and prairie. The project area is outside the breeding and wintering ranges of this species. Suitable habitat for migratory Black Rails may be present; however, any use of that habitat would be incidental and ephemeral.	T	No effect or take	T	No impact	The project area does not contain suitable breeding or wintering habitat for the Black Rail. Any use of potential migratory stopover habitat within the project area would be incidental and ephemeral.	N
Travis	Birds	Golden-cheeked Warbler	<i>Setophaga (=Dendroica) chrysoparia</i>	This migratory species breeds in central Texas along the Balcones Escarpment on the eastern edge of the Edwards Plateau and ranges from southwest of Fort Worth to northeast of Del Rio. Breeding habitat consists of juniper-oak woodlands dominated by Ashe juniper (<i>Juniperus ashei</i>) and various oak (<i>Quercus</i> sp.) species and deciduous trees found in areas with steep slopes, canyon heads, draws, and adjacent ridgetops. The species is dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are generally placed in upright forks of mature Ashe junipers or various deciduous species. Occupied sites usually contain junipers at least 40 years old.	N	According to a review of GCWA habitat models and July 2022 field visits, the project area does not contain suitable juniper-oak woodland habitat for this species. The project area is located east of this species' known range.	E	No effect or take	E	No impact	No suitable habitat present. In addition, the project area is outside of the known range for this species.	N

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Bastrop, Travis	Birds	Least Tern - Migratory	<i>Sternula (=Sterna) antillarum</i>	The interior population (subspecies <i>athalassos</i>) of the Least Tern nests on bare or sparsely vegetated sand, shell, and gravel beaches, sandbars, islands, and salt flats associated with inland rivers and reservoirs. It occasionally nests on man-made structures such as sand and gravel pits or gravel rooftops. Preferred habitat includes sand and gravel bars within a wide unobstructed river channel, or open flats along shorelines of lakes and reservoirs. Colony sites can move annually, depending on landscape disturbance and vegetation growth at established colonies. It is known to nest at three reservoirs along the Rio Grande River, on the Canadian River in the northern Panhandle, and along the Red River.	N/A	The project area is outside the breeding and wintering range of this species. Although suitable stopover habitat may be present, Least Tern is not expected to regularly occur and any use of this habitat would be incidental.	—	N/A	E	No impact	The project area does not contain suitable breeding or wintering habitat for the Least Tern.	N
Bastrop, Travis	Birds	Piping Plover - Migratory	<i>Charadrius melodus</i>	This migratory species overwinters in Texas, where it occurs on beaches, ephemeral sand flats, barrier islands, sand, mud, algal flats, washover passes, salt marshes, lagoons, and dunes along the Gulf Coast and adjacent offshore islands, including spoil islands in the Intracoastal Waterway. Algal flats appear to be the highest quality habitat because of their relative inaccessibility and their continuous availability throughout all tidal conditions. Sand flats often appear to be preferred over algal flats when both are available, but large portions of sand flats along the Texas coast are available only during low or very low tides and are often completely unavailable during extreme high tides or strong north winds. Beaches appear to serve as a secondary habitat to the flats associated with the primary bays, lagoons, and inter-island passes. Beaches are rarely used on the southern Texas coast, where bayside habitat is always available, and are abandoned as bayside habitats become available on the central and northern coast.	N/A	The list of federally threatened and endangered species indicates that based on the project location within the migratory route, effects to Piping Plover only need be considered for wind energy projects. The project area is outside the breeding and wintering range of this species. Although suitable stopover habitat may be present, Piping Plover is not expected to regularly occur and any use of this habitat would be incidental.	T	No effect or Take	T	No impact	The project is not a wind energy project within the migratory route and does not contain suitable breeding and wintering habitat for the Piping Plover.	N

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Bastrop, Travis	Birds	Red Knot - Migratory	<i>Calidris canutus rufa</i>	The species is a winter resident and migrant in Texas. It is primarily found in marine habitats such as sandy beaches, salt marshes, lagoons, mudflats of estuaries and bays, and mangrove swamps during winter months. It primarily occurs along the Gulf coast on tidal flats and beaches and less frequently in marshes and flooded fields. It has occasionally been observed along shorelines of large lakes and freshwater marshes.	N/A	The list of federally threatened and endangered species indicates that based on the project location within the migratory route, effects to Red Knot only need be considered for wind energy projects. The project area is outside the breeding and wintering range of this species. Although suitable stopover habitat may be present, Red Knot is not expected to regularly occur and any use of this habitat would be incidental.	T	No effect or Take	T	No impact	The project is not a wind energy project within the migratory route and does not contain suitable breeding and wintering habitat for the Red Knot.	N
Bastrop, Travis	Birds	Swallow-tailed Kite	<i>Elanoides forficatus</i>	This migratory species breeds in the South Central Plains of east Texas and throughout the southeastern U.S. In Texas, breeding habitat occurs between sea level and 230 meters in elevation in bottomland forests, cypress swamps, pine glades, and freshwater marshes skirting large lakes. It nests near the tops of trees that are higher than the surrounding stand, often near a clearing or the edge of a forest or woodland. It prefers to nest in pines, but occasionally uses species such as bald cypress (<i>Taxodium distichum</i>), water oak (<i>Quercus nigra</i>), or cottonwood (<i>Populus deltoides</i>).	N	According to July 2022 field visits, the project area does not contain suitable habitat for this species. This species requires specific tree height variation parameters not found within the project limits.	—	N/A	T	No impact	No suitable habitat present.	N
Bastrop, Travis	Birds	White-faced Ibis	<i>Plegadis chihi</i>	The species is found in the Western Gulf Coastal Plains ecoregion of Texas. Preferred habitat includes freshwater wetlands, marshes, ponds, rivers, irrigated land, and sloughs, but it occasionally forages in brackish or saltwater marshes. It nests in marshes in low trees, on the ground in bulrushes (<i>Scirpus</i> sp.) or reeds, or on floating mats.	N	According to NWI data, NHD data, and July 2022 field visits, the project area does not contain suitable habitat for this species. The project area does not contain the wetlands/aquatic features required by this species.	—	N/A	T	No impact	No suitable habitat present.	N

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Bastrop, Travis	Birds	Whooping Crane	<i>Grus americana</i>	The species breeds in Canada and winters on the Texas coast at Aransas National Wildlife Refuge. During migration it typically stops to rest and feed in open bottomlands of large rivers and marshes but, like other waterbirds, it may also utilize flooded croplands, playas, large wetlands associated with lakes, small ponds, and various other aquatic features. Typical migration habitat includes sites with good horizontal visibility, water depth of 30 centimeters or less, and minimum wetland size of 0.04 hectare for roosting.	N	According to NWI data, NHD data, and July 2022 field visits, the project area does not contain suitable habitat for this species. This species prefers to stop, rest, and feed in open bottomlands of large rivers and marshes. No typical migration habitat was identified within or near the project limits.	E	No effect or take	E	No impact	No suitable habitat present.	N
Bastrop, Travis	Birds	Wood Stork	<i>Mycteria americana</i>	The species breeds in Mexico, and nesting sites have not been recorded in Texas since 1960. However, post-breeding migrants disperse into Texas in the summer. Foraging habitat includes freshwater prairie ponds, flooded pastures or fields, ditches, and other shallow standing water with an open canopy, occasionally including brackish wetlands. The species typically roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries).	N	According to NWI data, NHD data, and July 2022 field visits, the project area does not contain suitable habitat for this species. The project area does not contain the shallow standing water with open canopy required by this species.	—	N/A	T	No impact	No suitable habitat present.	N
Bastrop, Travis	Birds	Zone-tailed Hawk	<i>Buteo albonotatus</i>	The species occurs in arid open country, especially open deciduous or pine-oak woodland, mesa and mountain country, often near watercourses, and wooded canyons and tree-lined rivers along middle-slopes of desert mountains. It nests in a variety of sites including small trees in lower desert, giant cottonwoods in riparian areas, and mature conifers in high mountain regions. Nests are typically constructed in large trees like cottonwoods (<i>Populus deltoides</i>), usually along streams near cliffs or steep hillsides.	N	According to NWI data, NHD data, and July 2022 field visits, the project area does not contain suitable habitat for this species. The project limits do not contain open deciduous or pine-oak woodland, mesa and mountain country, wooded canyons, or tree-lined rivers along middle slopes of desert mountains.	—	N/A	T	No impact	No suitable habitat present.	N

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Bastrop	Fishes	Blue Sucker	<i>Cypleptus elongatus</i>	Within Texas, the blue sucker occurs in limited numbers throughout the major streams and rivers within the state, except the Rio Grande. The species inhabits large, deep rivers, and deeper zones of lakes. River habitat is characterized by cobble and/or bedrock substrates. Adults occupy areas with deep riffles, while juveniles are found in shallower, less swift riffles.	N	According to NWI data, NHD data, and July 2022 field visits, the project area does not contain suitable habitat for this species. The project area does not contain any large, deep rivers or lakes.	—	N/A	T	No impact	No suitable habitat present.	N
Travis	Fishes	Smalleye Shiner	<i>Notropis buccula</i>	The species is likely extirpated from the lower and middle portions of the Brazos River, currently known only from the upper Brazos River above Possum Kingdom Reservoir. The species is common in river channels and side channels with water of moderate depth and current. It is typically found in broad channels with high turbidity and constant shifting sand substrate, or occasionally silt substrate. It is most frequently found using the center of the channel, avoiding the shallow depth and slow velocity of the stream edges.	N	According to NWI data, NHD data, and July 2022 field visits, the project area does not contain suitable habitat for this species. The project area does not occur within the Brazos River drainage basin.	E	No effect or take	E	No impact	The project area is approximately 192 miles southsoutheast of the Upper Brazos River above Possum Kingdom Reservoir. The project area is outside of the known range for this species.	N

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Bastrop, Travis	Insects	Monarch Butterfly	<i>Danaus plexippus</i>	Found statewide. Adults are found in a variety of habitats including native prairies, pastures, open woodlands and savannas, desert scrub, roadsides, and other habitats with abundant nectar plants, including urbanized areas. Although adults may be present year round, they are primarily encountered between March and November, and are most commonly observed in the summer and fall during breeding and migration. Caterpillars are found on various species of the family Asclepiadaceae (occasionally treated as a subfamily of Apocynaceae). Common host plants in Texas include milkweeds (<i>Asclepias</i> spp.) milkweed vines (<i>Matelea</i> spp.), climbing milkweed (<i>Funastrum</i> spp.), swallowworts (<i>Cynanchum</i> spp.) and Anglepod (<i>Gonolobus suberosus</i>). Caterpillars are most frequently observed between April and September."	Y	According to July 2022 field visits, the project area contains suitable habitat for this species. The project area contains milkweeds and other host plants utilized by this species.	C	May affect	—	N/A	The project may affect the monarch butterfly; however, the monarch is currently a candidate species and no consultation with USFWS is required at this time. As construction activities for this project are not anticipated to be completed prior to Fiscal Year 2024, when a listing decision for the species is anticipated, additional coordination may be required. The project should be reevaluated at that time to determine if further action is required if the species becomes proposed for federal listing.	N
Travis	Insects	Kretschmarr Cave Mold Beetle	<i>Texamaurops reddelli</i>	This subterranean obligate species inhabits karstic features within the Edwards Limestone Formation. It is known from nine caves in the Jollyville Plateau karst fauna Region in Travis and Williamson Counties, including Kretschmarr, Amber, Tooth and Coffin Caves.	N	According to a review of the karst zones and July 2022 field visits, the project area does not contain suitable habitat for this species. This project is located east of the demarcated karst zones and primarily occurs in the Kemp Clay, Corsicana Marl, Neylandville Formation, and Marlbrook Marl rock unit.	E	No effect or take	—	N/A	No suitable habitat present. The project area is located east of the designated karst zones.	N

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Travis	Insects	Tooth Cave Ground Beetle	<i>Rhadine persephone</i>	This subterranean obligate species inhabits karstic features within the Edwards Limestone Formation. It is known from 61 caves in the Cedar Park and Jollyville Plateau karst fauna Regions in Travis County, including Tooth and Kretschmarr Caves.	N	According to a review of the karst zones and July 2022 field visits, the project area does not contain suitable habitat for this species. This project is located east of the demarcated karst zones and primarily occurs in the Kemp Clay, Corsicana Marl, Neylandville Formation, and Marlbrook Marl rock unit.	E	No effect or take	—	N/A	No suitable habitat present. The project area is located east of the designated karst zones.	N
Bastrop, Travis	Mollusks	False Spike	<i>Fusconaia (=Quadrula) mitchelli</i>	Freshwater mussel currently known from the Colorado and Brazos River basins. The species occurs in small to medium-sized streams and rivers with various substrates including mud and mixtures of sand, gravel, and cobble. It is often found in riffle and pool habitats, and host species include the red (<i>Cyprinella lutrensis</i>) and blacktail shiner (<i>C. venusta</i>).	N	According to NWI data, NHD data, the TXNDD, and July 2022 field visits, the project area does not contain suitable habitat for this species. The project area is within the Colorado River basin. However, no portion of the project area transects riverine habitat or tributaries associated with the presence of this species.	PE	No effect or take	T	No impact	No suitable habitat present. In addition, the project area is not proximate to any known location of this species. Dry Creek and Maha Creek are designated as Group 5 streams by USFWS; both creeks were dry within the project boundary during field investigations conducted on 10/13/2022.	N

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Bastrop, Travis	Mollusks	Texas Fatmucket	<i>Lampsilis bracteata</i>	A freshwater mussel endemic to streams and small rivers of the Texas Hill Country, the species occurs in moderately flowing waters generally less than 1 meter in depth. It can occur in sand or gravel substrates, but typically occurs in soft silt deposits in bank or pool habitats or cracks in bedrock. It inhabits microhabitats among large cobble, boulders, bedrock ledges, horizontal cracks in bedrock slabs, and macrophyte beds. It has been reported inhabiting roots of cypress trees and other vegetation along steep banks. It is intolerant to impoundment and absent from backwater, mid-channel, and riffle habitats.	N	According to NWI data, NHD data, the TXNDD, and July 2022 field visits, the project area does not contain suitable habitat for this species. The project area is within the Colorado River basin. However, no portion of the project area transects riverine habitat or tributaries associated with the presence of this species.	PE	No effect or take	T	No impact	No suitable habitat present. In addition, the project area is not proximate to any known location of this species. Dry Creek and Maha Creek are designated as Group 5 streams by USFWS; both creeks were dry within the project boundary during field investigations conducted on 10/13/2022.	N
Bastrop, Travis	Mollusks	Texas Fawnsfoot	<i>Truncilla macrodon</i>	A freshwater mussel that is currently limited to the Brazos, Colorado, and Trinity River basins in Texas. The species occupies large streams to medium rivers and is intolerant of impoundment. Little is known about the species due to lack of representative specimens, however it is thought that the species prefers protected areas near shore in water with a moderate current over mud, sandy mud, and gravel substrates. It is also found in perennial irrigation canals for rice.	N	According to NWI data, NHD data, the TXNDD, and July 2022 field visits, the project area does not contain suitable habitat for this species. The project area is within the Colorado River basin. However, no portion of the project area transects riverine habitat or tributaries associated with the presence of this species.	PT	No effect or take	T	No impact	No suitable habitat present. In addition, the project area is not proximate to any known location of this species. Dry Creek and Maha Creek are designated as Group 5 streams by USFWS; both creeks were dry within the project boundary during field investigations conducted on 10/13/2022.	N

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Bastrop, Travis	Mollusks	Texas Pimpleback	<i>Cyclonaias (Quadula) petrina</i>	A freshwater mussel endemic to the middle and lower portions of the Colorado River basin in Texas. The species inhabits medium to large rivers with shallow water and slow to moderate currents. It occurs in gravel-filled cracks in bedrock and microhabitats and on mud, sand, gravel, and cobble substrates. It is intolerant to extremely soft substrates, shifting sands, scoured bottoms, and impoundments.	N	According to NWI data, NHD data, the TXNDD, and July 2022 field visits, the project area does not contain suitable habitat for this species. The project area is within the Colorado River basin. However, no portion of the project area transects riverine habitat or tributaries associated with the presence of this species.	PE	No effect or take	T	No impact	No suitable habitat present. In addition, the project area is not proximate to any known location of this species. Dry Creek and Maha Creek are designated as Group 5 streams by USFWS; both creeks were dry within the project boundary during field investigations conducted on 10/13/2022.	N
Travis	Plants	Bracted Twistflower	<i>Streptanthus bracteatus</i>	The species is found in south-central Texas. It is an annual; endemic to the Edwards Plateau where it is occurs on shallow, well-drained gravelly clays and clay loams over limestone, within oak-juniper woodland and associated openings, on steep to moderate slopes, and in canyon bottoms. Often found amid dense shrub growth where there is some protection from browsing.	N	According to July 2022 field visits, the project area does not contain suitable habitat for this species. The project area does not contain limestone in oak-juniper woodlands with steep to moderate slopes or canyon bottoms.	PT	No effect or harm	—	N/A	No suitable habitat present.	N
Bastrop	Plants	Navasota Ladies-tresses	<i>Spiranthes parksii</i>	This perennial herb is endemic to the Post Oak Belt of eastern Central Texas. It occurs in openings in post oak (<i>Quercus stellata</i>) woodlands on sandy loams along eroded banks of upland drainages or intermittent streams, often in areas with features such as a perched water table associated with underlying claypan.	N	According to NWI data, NHD data, and July 2022 field visits, the project area does not contain suitable habitat for this species. The project area does not contain post oak woodlands along banks of drainages/streams.	E	No effect or harm	E	No impact	No suitable habitat present.	N

SPECIES ANALYSIS SUMMARY

Project Name: FM 812

CSJ(s): 1149-01-023

County	Taxon	Common Name	Scientific Name	Habitat	Suitable Habitat Present?	Explanation for determination regarding suitable habitat	Federal Status	Effect/Take Determination for Federally Listed Species	State Status	Impact Determination for State-Listed Species	Explanation for Effect/Take and/or Impact Determination	Presence/Absence survey conducted?
Bastrop, Travis	Reptiles	Texas Horned Lizard	<i>Phrynosoma cornutum</i>	The species is found in semi-arid open areas with scattered vegetation comprised of bunchgrass, cacti, yucca, mesquite, acacia, juniper, or other woody shrubs and small trees commonly found in loose sandy or loamy soils.	N	According to July 2022 field visits, the project area does not contain suitable habitat for this species. The project area is an urbanized landscape that does not contain suitable scattered vegetation in sandy soils.	—	N/A	T	No impact	No suitable habitat present.	N

SPECIES ANALYSIS SUMMARY (SGCN)

Project Name: FM 812

CSJ(s): 1149-01-023

County	Taxon	Common Name	Scientific Name	Habitat	Suitable Habitat Present?	Explanation for determination regarding suitable habitat	Impact Determination for SGCNs	Explanation for Impact Determination	Presence/ Absence survey conducted?
Bastrop, Travis	Amphibians	Woodhouse's toad	Anaxyrus woodhousii	Terrestrial and aquatic: A wide variety of terrestrial habitats are used by this species, including forests, grasslands, and barrier island sand dunes. Aquatic habitats are equally varied.	Y	Forests and grasslands with aquatic habitats occur within the project area.	May impact	Potential suitable habitat present within project area.	N
Bastrop, Travis	Amphibians	Strecker's chorus frog	Pseudacris streckeri	Terrestrial and aquatic: Wooded floodplains and flats, prairies, cultivated fields and marshes. Likes sandy substrates.	Y	Wooded floodplains, cultivated fields, and prairies occur within the project area.	May impact	Potential suitable habitat present within project area.	N
Travis	Birds	mountain plover	Charadrius montanus	The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous.	Y	Plowed fields and grasslands occur within the project area.	No impact	Suitable foraging habitat occurs within project area. However, this species is likely to be transient and deterred from remaining in the project area due to construction activities. This species does not breed in central Texas.	N
Bastrop, Travis	Birds	western burrowing owl	Athene cunicularia hypugaea	Open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows	Y	The project area contains a grass lot near human habitation.	May impact	Potential suitable habitat present within project area.	N
Bastrop, Travis	Birds	Sprague's pipit	Anthus spragueii	The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Habitat during migration and in winter consists of pastures and weedy fields (AOU 1983), including grasslands with dense herbaceous vegetation or grassy agricultural fields.	Y	The project area contains pastures, weedy fields, grasslands with dense herbaceous vegetation, and grassy agricultural fields.	No impact	Suitable foraging habitat occurs within project area. However, this species is likely to be transient and deterred from remaining in the project area due to construction activities. This species does not breed in central Texas.	N
Travis	Birds	lark bunting	Calamospiza melanocorys	Overall, it's a generalist in most short grassland settings including ones with some brushy component plus certain agricultural lands that include grain sorghum. Short grasses include sideoats and blue gramas, sand dropseed, prairie junegrass (Koeleria), buffalograss also with patches of bluestem and other mid-grass species. This bunting will frequent smaller patches of grasses or disturbed patches of grasses including rural yards. It also uses weedy fields surrounding playas. This species avoids urban areas and cotton fields.	Y	The project area contains grasslands and agricultural fields away from heavy urbanization.	No impact	Suitable foraging habitat occurs within project area. However, this species is likely to be transient and deterred from remaining in the project area due to construction activities. This species does not breed in central Texas.	N
Bastrop, Travis	Birds	chestnut-collared longspur	Calcarius ornatus	Occurs in open shortgrass settings especially in patches with some bare ground. Also occurs in grain sorghum fields and Conservation Reserve Program lands	Y	The project area contains grasslands that may include areas with bare ground.	No impact	Suitable foraging habitat occurs within project area. However, this species is likely to be transient and deterred from remaining in the project area due to construction activities. This species does not breed in central Texas.	N

Prepared Date: 6/22/2022, 9/30/2022

TxDOT ENV Spreadsheet Template date: April 7, 2022.

SPECIES ANALYSIS SUMMARY (SGCN)

Project Name: FM 812

CSJ(s): 1149-01-023

County	Taxon	Common Name	Scientific Name	Habitat	Suitable Habitat Present?	Explanation for determination regarding suitable habitat	Impact Determination for SGCNs	Explanation for Impact Determination	Presence/ Absence survey conducted?
Bastrop, Travis	Mammals	cave myotis bat	Myotis velifer	Colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (<i>Hirundo pyrrhonota</i>) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore.	Y	Old human structures occur within the project area.	May impact	Potential suitable habitat present within project area.	N
Bastrop, Travis	Mammals	tricolored bat	Perimyotis subflavus	Forest, woodland and riparian areas are important. Caves are very important to this species.	Y	Forests, woodlands, and riparian areas occur within the project area.	May impact	There is potential suitable habitat in the project area. Tricolored bat is a proposed endangered species, and consultation with USFWS is not required at this time. If the species receives full listing status during the life of this project, it will be re-evaluated to determine the appropriate course of action, which may include consultation with USFWS.	N
Bastrop, Travis	Mammals	big brown bat	Eptesicus fuscus	Any wooded areas or woodlands except south Texas. Riparian areas in west Texas.	Y	Woodland areas occur within the project area.	May impact	Potential suitable habitat present within project area.	N
Bastrop, Travis	Mammals	eastern red bat	Lasiurus borealis	Red bats are migratory bats that are common across Texas. They are most common in the eastern and central parts of the state, due to their requirement of forests for foliage roosting. West Texas specimens are associated with forested areas (cottonwoods). Also common along the coastline. These bats are highly mobile, seasonally migratory, and practice a type of wandering migration". Associations with specific habitat is difficult unless specific migratory stopover sites or wintering grounds are found. Likely associated with any forested area in East	Y	Forested areas occur within the project area.	May impact	Potential suitable habitat present within project area.	N
Bastrop, Travis	Mammals	hoary bat	Lasiurus cinereus	Hoary bats are highly migratory, high-flying bats that have been noted throughout the state. Females are known to migrate to Mexico in the winter, males tend to remain further north and may stay in Texas year-round. Commonly associated with forests (foliage roosting species) but are found in unforested parts of the state and lowland deserts. Tend to be captured over water and large, open flyways.	Y	Forested areas occur within the project area.	May impact	Potential suitable habitat present within project area.	N
Bastrop, Travis	Mammals	swamp rabbit	Sylvilagus aquaticus	Primarily found in lowland areas near water including: cypress bogs and marshes, floodplains, creeks and rivers.	Y	Floodplains and tangles of shrubs, trees, and vines associated with creeks occur within the project area.	May impact	Potential suitable habitat present within project area.	N
Bastrop, Travis	Mammals	long-tailed weasel	Mustela frenata	Includes brushlands, fence rows, upland woods and bottomland hardwoods, forest edges & rocky desert scrub. Usually live close to water.	Y	Brushlands, fence rows, upland woods, and forest edges near water occur within the project area.	May impact	Potential suitable habitat present within project area.	N

Prepared Date: 6/22/2022, 9/30/2022

TxDOT ENV Spreadsheet Template date: April 7, 2022.

SPECIES ANALYSIS SUMMARY (SGCN)

Project Name: FM 812

CSJ(s): 1149-01-023

County	Taxon	Common Name	Scientific Name	Habitat	Suitable Habitat Present?	Explanation for determination regarding suitable habitat	Impact Determination for SGCNs	Explanation for Impact Determination	Presence/ Absence survey conducted?
Bastrop, Travis	Mammals	eastern spotted skunk	Spilogale putorius	Generalist; open fields prairies, croplands, fence rows, farmyards, forest edges & woodlands. Prefer wooded, brushy areas & tallgrass prairies. S.p. ssp. interrupta found in wooded areas and tallgrass prairies, preferring rocky canyons and outcrops when such sites are available.	Y	Open fields, fence rows, woodlands, and forest edges near water occur within the project area.	May impact	Potential suitable habitat present within project area.	N
Bastrop	Plants	Shinner's sunflower	Helianthus occidentalis ssp. plantagineus	Mostly in prairies on the Coastal Plain, with several slightly disjunct populations in the Pineywoods and South Texas Brush Country.	Y	There is prairie habitat within the project area in Bastrop County.	May impact	Potential suitable habitat present within project area.	N
Travis	Plants	tree dodder	Cuscuta exaltata	Parasitic on various Quercus, Juglans, Rhus, Vitis, Ulmus, and Diospyros species as well as Acacia berlandieri and other woody plants; Annual; Flowering May-Oct; Fruiting July-Oct	Y	The host tree species associated with this species are found within the project area.	May impact	Potential suitable habitat present within project area.	N
Travis	Plants	net-leaf bundleflower	Desmanthus reticulatus	Mostly on clay prairies of the coastal plain of central and south Texas; Perennial; Flowering April-July; Fruiting April-Oct	Y	Grasslands with clay soils occur within the project area.	May impact	Potential suitable habitat present within project area.	N
Travis	Plants	Greenman's bluet	Houstonia parviflora	Grass pastures. Feb- Apr. (Correll and Johnston 1970); found in sparsely vegetated openings in mixed brush shrublands on a variety of tight, well drained substrates including clay, caliche, and sandy loam (Jones 1977)	Y	Grass pastures and small shrublands occur within the project area.	May impact	Potential suitable habitat present within project area.	N
Bastrop, Travis	Reptiles	eastern box turtle	Terrapene carolina	Terrestrial: Eastern box turtles inhabit forests, fields, forest-brush, and forest-field ecotones. In some areas they move seasonally from fields in spring to forest in summer. They commonly enter pools of shallow water in summer. For shelter, they burrow into loose soil, debris, mud, old stump holes, or under leaf litter. They can successfully hibernate in sites that may experience subfreezing temperatures.	Y	The project area contains forests, fields, forest-brush, forest-field ecotones, and ponds.	May impact	Potential suitable habitat present within project area.	N
Bastrop, Travis	Reptiles	western box turtle	Terrapene ornata	Terrestrial: Ornate or western box turtles inhabit prairie grassland, pasture, fields, sandhills, and open woodland. They are essentially terrestrial but sometimes enter slow, shallow streams and creek pools. For shelter, they burrow into soil (e.g., under plants such as yucca) (Converse et al. 2002) or enter burrows made by other species.	Y	The project area contains grasslands, pastures, fields, and open woodlands, and ponds.	May impact	Potential suitable habitat present within project area.	N
Bastrop, Travis	Reptiles	slender glass lizard	Ophisaurus attenuatus	Terrestrial: Habitats include open grassland, prairie, woodland edge, open woodland, oak savannas, longleaf pine flatwoods, scrubby areas, fallow fields, and areas near streams and ponds, often in habitats with sandy soil.	Y	The project area contains grasslands, woodland edges, open woodland, fallow fields, and areas near streams and ponds.	May impact	Potential suitable habitat present within project area.	N
Bastrop, Travis	Reptiles	plateau spot-tailed earless lizard	Holbrookia lacerata	Terrestrial: Habitats include moderately open prairie-brushland regions, particularly fairly flat areas free of vegetation or other obstructions (e.g., open meadows, old and new fields, graded roadways, cleared and disturbed areas, prairie savanna, and active agriculture including row crops); also, oak-juniper woodlands and mesquite-prickly pear associations (Axtell 1968, Bartlett and Bartlett 1999).	Y	The project area contains graded roadways. In addition, according to TXNDD, there are documented occurrences of this species proximate to the project area.	May impact	Potential suitable habitat present within project area.	N

SPECIES ANALYSIS SUMMARY (SGCN)

Project Name: FM 812

CSJ(s): 1149-01-023

County	Taxon	Common Name	Scientific Name	Habitat	Suitable Habitat Present?	Explanation for determination regarding suitable habitat	Impact Determination for SGCNs	Explanation for Impact Determination	Presence/ Absence survey conducted?
Bastrop, Travis	Reptiles	Texas garter snake	Thamnophis sirtalis annectens	Terrestrial and aquatic: Habitats used include the grasslands and modified open areas in the vicinity of aquatic features, such as ponds, streams or marshes. Damp soils and debris for cover are thought to be critical.	Y	The project area contains grasslands, modified open areas, and ponds/streams.	May impact	Potential suitable habitat present within project area.	N
Bastrop	Reptiles	timber (canebrake) rattlesnake	Crotalus horridus	Terrestrial: Swamps, floodplains, upland pine and deciduous woodland, riparian zones, abandoned farmland. Limestone bluffs, sandy soil or black clay. Prefers dense ground cover, i.e. grapevines, palmetto.	Y	Floodplains and riparian zones on black clay occur within the project area.	May impact	Potential suitable habitat present within project area.	N