

**SPECIES ANALYSIS SPREADSHEET: Project Information Sheet**

<b>Project Name:</b>	FM 149 from Grimes County Line to FM 1791
<b>CSJ(s):</b>	0720-02-095
<b>TxDOT District:</b> <small>(Click dropdown arrow to select a District from List)</small>	Houston
<b>County(ies):</b> <small>(Click dropdown arrow to select each county)</small>	Montgomery
<b>Prepared by:</b> <small>(Full Name)</small>	Adam Wood
<b>Date Completed:</b> <small>(m/d/yyyy)</small>	10/10/2023

*TxDOT ENV Spreadsheet Template date: May 2, 2023.*

**SPECIES ANALYSIS SUMMARY**

**Project Name:**

**CSJ(s):**

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?
Montgomery	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
Montgomery	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

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Montgomery	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
Montgomery	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

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Montgomery	Birds	Red-cockaded Woodpecker	<i>Picoides borealis</i>	The species is a year-round resident of the Piney Woods ecosystem of east Texas. Optimal habitat consists of pine forest with large, widely-spaced trees. It nests in cavities in mature (over 60 years old) longleaf pine ( <i>Pinus palustris</i> ), when it occurs, but will also utilize shortleaf ( <i>P. echinata</i> ) and loblolly pine ( <i>P. taeda</i> ). Relatively younger pines (over 30 years old) can be used for foraging. Nest cavities are excavated from living trees, taking 1 to 3 years to create. As a cooperative breeding species, nest cavities occur in clusters, with 1 to 20 cavity trees occurring over 3 to 60 acres. The clan home range is approximately 200 acres when not nesting.	Y	Suitable habitat (pine forest) was observed during October 2022 site investigations adjacent to the project area.	E	May affect	E	May impact	Suitable habitats present in the project area. Eight observations of this species were recorded in the TxNDD within 1.5 miles of the project area. One hundred observations of this species were recorded in the TxNDD within 10 miles of the project area. Project activities would be covered by the TxDOT Programmatic Consultation and voluntary conservation measures (VCMs) will be used to minimize impacts.	N
Montgomery	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> ).	Y	Suitable habitat was observed during October 2022 site investigations. The project area includes pine and various deciduous trees adjacent to clearings and forest woodland edge.	—	N/A	T	May impact	Suitable habitat is present in the project area. However, there are no records of this species within 10-miles of the project area in the TXNDD, EOs in NatureServe Explorer, or observations in eBird in the vicinity of the project. TPWD Bird BMPs will be utilized to minimize impacts to this species.	N

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Montgomery	Birds	White-faced Ibis	<i>Plegadis chini</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	No suitable breeding habitat was observed during October 2022 site investigations. No freshwater marshes, sloughs, or irrigated rice fields were observed in the project area.	—	N/A	T	No impact	No suitable habitat is present within the project area. There are no records of this species within 10-miles of the project area in the TXNDD, EOs in NatureServe Explorer, or observations in eBird in the vicinity of the project.	N
Montgomery	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	No suitable habitat was observed during October 2022 within or adjacent to the project area. No open bottomlands, marshes, croplands, or large wetlands are present within or adjacent to the project area.	E	No effect or take	E	No impact	This species is not included on the USFWS IPaC Official Species List but is listed on the TPWD Montgomery County RTEST List. No suitable habitat is present within the project area. There are no records of this species within 10-miles of the project area in the TXNDD, EOs in NatureServe Explorer, or observations in eBird in the vicinity of the project.	N
Montgomery	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	No suitable habitat was observed during October 2022 within or adjacent to the project area. The project area is within the San Jacinto river basin. Medium to large flowing rivers were not identified in the project area.	—	N/A	T	No impact	No suitable habitat is present within the project area. There are no records of this species within 10-miles of the project area in the TXNDD, EOs in NatureServe Explorer, or observations in eBird in the vicinity of the project.	N

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Montgomery	Fishes	Chub Shiner	<i>Notropis potteri</i>	Found primarily in the Brazos, Colorado, San Jacinto, and Trinity river basins, this species is a bottom dweller and is found in medium to large flowing rivers in areas with turbid water and gravelly substrate overlain with silt or sand.	N	No suitable habitat was observed during October 2022 within or adjacent to the project area. The project area is within the San Jacinto river basin. Medium to large flowing rivers were not identified in the project area.	—	N/A	T	No impact	No suitable habitat is present within the project area. There are no records of this species within 10-miles of the project area in the TXNDD or EOs in NatureServe Explorer.	N
Montgomery	Fishes	Western Creek Chubsucker	<i>Erimyzon claviformis</i>	The species is widespread in east Texas from the Red to the San Jacinto Rivers. The species occurs in pools of clear headwaters, creeks, and small rivers with silt, sand, and gravel substrates, and occasionally in lakes. It is frequently found near submergent vegetation. Spawning occurs in river mouths or pools, riffles, lake outlets, or upstream creeks.	N	Suitable habitat was not observed during October 2022 site visit. The project area is within the San Jacinto river basin and contains four ephemeral tributaries to Caney Creek, containing water with pools, very low streamflow, and sandy loam clay substrate. However, this species doesn't use ephemeral streams.	—	N/A	T	No impact	Suitable habitat is not present in the project area and there are no records of this species within 1.5 miles of the project area in the TXNDD but one observation was recorded in the TxNDD between 1.5-10 miles of the project area.	N

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Montgomery	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	Habitats with nectar-producing vegetation were observed in the project area during October 2022 site investigations.	C	Take	—	N/A	The monarch butterfly is a candidate species, and no consultation with USFWS is required at this time. TxDOT is a partner in the Nationwide Candidate Conservation Agreement with Assurances/Candidate Conservation Agreement for Monarch Butterfly on Energy and Transportation Lands (Agreement). The Agreement authorizes incidental take for all activities included in the proposed project should the monarch butterfly be listed as endangered or threatened.	N
Montgomery	Mammals	Louisiana Black Bear	<i>Ursus americanus luteolus</i>	Historically, Louisiana black bear occurred in east Texas throughout the Western Gulf Coastal Plains ecoregion and as far west as the San Antonio River drainage basin. Habitat includes bottomland hardwood forest, brackish and freshwater marshes, salt domes, wooded spoil levees along canals, bayous, and agricultural fields. It generally requires areas with large tracts of inaccessible forest.	Y	Suitable habitat was observed during October 2022 within and adjacent to the project area. The project area is within and adjacent to large tracts of forest that include bottomland hardwood forest.	—	N/A	T	No impact	While suitable habitat is present in the project area there are no records of this species within 10 miles of the project area on the TXNDD and there is no data on NatureServe Explorer for this species in Texas. Furthermore the project area is outside the accepted current range for this species.	N

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Montgomery	Mammals	Rafinesque's Big-eared Bat	<i>Corynorhinus rafinesquii</i>	This species occurs in the bottomland pine and hardwood forests of east Texas. The species is known to roost in hollow trunks of bottomland hardwoods such as black gum ( <i>Nyssa sylvatica</i> ), southern magnolia ( <i>Magnolia grandiflora</i> ), and water tupelo ( <i>Nyssa aquatica</i> ). It also roosts in caves and man-made structures such as bridges, culverts, and abandoned buildings.	Y	Suitable habitat was observed during October 2022 within and adjacent to the project area. The project area is within the bottomland pine and hardwood forests of east Texas. Approximately twenty culverts are within the project area.	—	N/A	T	May impact	Suitable habitat is present in the project area. However, there are no records of this species within 10 miles of the project area in the TXNDD or EOs in NatureServe Explorer. Texas Parks & Wildlife Department (TPWD) Bat BMPs will be implemented to minimize impacts.	N
Montgomery	Mammals	Tricolored Bat	<i>Perimyotis subflavus</i>	In Texas, Tricolored Bats may be found year round. In the spring, summer, and fall they primarily nest on leaves or bark of live and dead trees, or epiphytic vegetation such as Spanish moss ( <i>Tillandsia usneoides</i> ). They may also roost among ferns and crevices on limestone and sandstone bluffs and cliffs during this time. From late winter to early spring they may roost in culverts, abandoned buildings, and large hollow trees. In central Texas caves serve as important roost sites. Tricolored bats typically roost alone or in small groups. During the winter they may go into periods of torpor during colder temperatures however they will emerge to feed on warm evenings. Foraging habitat consists of open woodlands, riparian corridors, and forest edge.	N/A	A habitat assessment was not performed for this species.	PE	Undetermined	—	N/A	Suitable habitat may be present within the project area. Effects to the species are currently undetermined. The Tricolored bat has been proposed as a federally endangered species, and consultation with USFWS is not required at this time. If the species is listed, effects to the Tricolored Bat will be re-evaluated to determine the appropriate course of action which may include consultation with the USFWS.	N
Montgomery	Mollusks	Louisiana Pigtoe	<i>Pleurobema riddellii</i>	Freshwater mussel currently found in the Sabine, Neches, and Trinity River basins in Texas. The species occurs in streams to medium-sized rivers with moderate flow. In Texas, the species has only been documented occurring in relatively shallow lotic waters with preferable substrate being sand and sand with gravel and silt. It is not generally known to tolerate impoundments.	N	Suitable habitat was not observed during October 2022 site investigations. The streams identified did not have moderate flow. The project is not within the Sabine, Neches, or Trinity River basins in Texas.	PT	No effect or take	T	No impact	The project is in the San Jacinto River Basin that is not a known area for this species. Therefore, the project is outside its current know range and it is not listed on the USFWS Official Species List and is not considered for this project.	N



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Montgomery	Mollusks	Sandbank Pocketbook	<i>Lampsilis satura</i>	A freshwater mussel that is currently limited to the Upper Trinity, Neches, Sabine, and San Jacinto River basins in Texas. The species occurs in flowing small to large rivers with gravel, gravel-sand, and sand substrates. It has been observed in littoral areas with snags, gravel, or sand substrate with slow to moderate currents, as well as lotic waters in substrates of sand, silty sand, and sand and clay mixture.	N	Suitable habitat was not observed during October 2022 site investigations. Sandy substrate was observed, but no gravel substrates were identified nor suitable flow regimes in intermittent and ephemeral streams.	—	N/A	T	No impact	No suitable habitat is present within the project area. No records have been recorded in the project area in Mussels of Texas accessed 11/11/22.	N
Montgomery	Plants	Texas Prairie Dawn-flower	<i>Hymenoxys texana</i>	This annual herb is endemic to the upper Texas Gulf Coastal Plain. It occurs in grasslands within sparsely vegetated areas (slick spots) at the base of pimple mounds in association with poorly drained saline soils that are sticky when wet and powdery when dry.	N	Please see Addendum Tab	E	No effect or harm	E	No impact	Please see Addendum Tab	N
Montgomery	Reptiles	Alligator Snapping Turtle	<i>Macrochelys temminckii</i>	Occurs in drainages east of the Brazos River where it inhabits perennial water bodies such as the deep water of sluggish rivers, canals, lakes, and oxbows, along with swamps, bayous. This highly aquatic species spends the majority of its time on the bottom of water bodies with abundant woody debris that serves as refugia. The presence of woody riparian vegetation is an important component of the waterbodies where the species may be found.	N	Please see Addendum Tab	PT	No effect or take	T	No impact	Please see Addendum Tab	N
Montgomery	Reptiles	Louisiana Pine Snake	<i>Pituophis ruthveni</i> (EX)	The species occurs in the pineywoods of east Texas in longleaf pine savannah with substantial herbaceous ground cover, and pine-oak sandhills interspersed with moist bottomlands. Pocket gophers ( <i>Geomys breviceps</i> ) are an essential component of the snake habitat. They create burrow systems where the snakes are most frequently found and are a major source of food for the species.	N/A	There are no recent Louisiana Pine Snake records from Montgomery County, where USFWS considers the species extirpated.	T	No effect or take	T	No impact	The species is extirpated from Montgomery County	N
Montgomery	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	No semi-arid open areas consisting of bunchgrass, cacti, yucca, mesquite, acacia, juniper, or other woody shrubs are located within the project area.	—	N/A	T	No impact	No suitable habitat is present within the project area and the climate of the region the project is occurring in would not support this species.	N

SPECIES ANALYSIS SUMMARY (SGCN)

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Montgomery	Amphibians	spotted dusky salamander	Desmognathus conanti	This species occurs in association with aquatic habitats in forested areas. Small, clear, spring fed streams with sandy substrate bordered with ferns and moss as well as murky, stagnant water bodies in cypress swamps, baygalls, and flood plains in bottomland forests support populations of this species.	Y	Aquatic habitats in forested areas were observed in the project area.	May impact	Suitable habitat is present within the project area. TPWD Amphibian BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Amphibians	Gulf Coast waterdog	Necturus beyeri	This species is associated with permanent flowing water within forested habitats, from small streams to large rivers. The are frequently associated with slow moving, sandy bottomed spring fed streams with lots of aquatic habitat such as log jams and leaf litter beds.	N	No perennial streams were observed during October 2022 site investigations.	No impact	No suitable habitat is present within the project area.	N
Montgomery	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	Terrestrial and aquatic habitats were observed in the project area.	May impact	Suitable habitat is present within the project area. TPWD Amphibian BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Amphibians	Strecker's chorus frog	Pseudacris streckeri	Terrestrial and aquatic: Wooded floodplains and flats, prairies, cultivated fields and marshes. Likes sandy substrates.	Y	Terrestrial and aquatic habitats were observed in the project area.	May impact	Suitable habitat is present within the project area. TPWD Amphibian BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Amphibians	southern crawfish frog	Lithobates areolatus areolatus	Terrestrial and aquatic: The terrestrial habitat is primarily grassland and can vary from pasture to intact prairie; it can also include small prairies in the middle of large forested areas. Aquatic habitat is any body of water but preferred habitat is ephemeral wetlands.	Y	Some grassland area and aquatic habitat were observed in the project area.	May impact	Suitable habitat is present within the project area. TPWD Amphibian BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Birds	bald eagle	Haliaeetus leucocephalus	Found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Y	No rivers, large lakes, tall trees or cliffs near water were observed in the project area. Four bald eagle observations were recorded in the TxNDD within 10 miles of the project area. Lake Conroe is east of the project area. Incidental observations may occur, even though no nesting habitat is in the project area. A Presence/Absence Survey was conducted on December 8, 2022 and found very few trees with broad enough crowns to support a Bald Eagle Nest.	No impact	Limited suitable habitat is present within the project area but no Eagles or their nests were observed during a pedestrian Presence/Absence Survey conducted on December 8, 2022. There are four records of this species within 1.5-10-miles of the project area in the TXNDD.	Y

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Montgomery	Birds	Franklin's gull	Leucophaeus pipixcan	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. This species is only a spring and fall migrant throughout Texas. It does not breed in or near Texas. Winter records are unusual consisting of one or a few individuals at a given site (especially along the Gulf coastline). During migration, these gulls fly during daylight hours but often come down to wetlands, lake shore, or islands to roost for the night.	N	Two small wetlands were observed during October 2022 site investigations. Incidental flyovers may occur but individuals would not use habitat within the project area.	No impact	No suitable habitat is present within the project area.	N
Montgomery	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	N	Limited areas of open grasslands cleared within pine forest are adjacent to the project area and are unlikely to be used by the species. No observations have been recorded within or near the project area (eBird 2022).	No impact	No suitable habitat is present within the project area.	N
Montgomery	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.	N	Please see Addendum Tab	No impact	Please see Addendum Tab	N
Montgomery	Fish	Mississippi silvery minnow	Hybognathus nuchalis	Found in eastern Texas streams, from the Brazos River eastward and northward to the Red River; found in moderate current; silty, muddy, or rocky substrate. In Texas, adults likely to inhabit smaller tributary streams.	Y	Small tributary treams occur in the project area. Project is in the San Jacinto river basin.	May impact	Suitable habitat is present within the project area. TPWD Fish BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Fish	blackspot shiner	Notropis atrocaudalis	Occurs from the lower Brazos River to the Sabine River drainage; Red River drainage. Small to moderate size tributary streams in runs and pools over all types of substrates.	Y	Small tributary treams occur in the project area. Five blackspot shiner observations were recorded in the TxNDD within 10 miles of the project area.	May impact	Suitable habitat is present within the project area. TPWD Fish BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Fish	Sabine shiner	Notropis sabiniae	Inhabits small streams and large rivers of eastern Texas from San Jacinto drainage northward along the Gulf Coast to the Sabine River Basin; Habitat generalist with affinities for shallow, moving water and rarely found in pools and backwater areas; closely restricted to substrate of fine, silt free sand in small creeks and rivers having slight to moderate current.	N	Small tributary treams occur in the project area. Project is in the San Jacinto river basin. However, slight to moderate current was not observed.	No impact	No suitable habitat is present within the project area.	N

SPECIES ANALYSIS SUMMARY (SGCN)

Project Name:

CSI(s):

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?
Montgomery	Mammals	southeastern myotis bat	Myotis austroriparius	Caves are rare in Texas portion of range; buildings, hollow trees are probably important. Historically, lowland pine and hardwood forests with large hollow trees; associated with ecological communities near water. Roosts in cavity trees of bottomland hardwoods, concrete culverts, and abandoned man-made structures.	Y	Pine and mixed hardwood forest are adjacent to the project area. Culverts occur in the project area.	May impact	Suitable habitat is present within the project area. TPWD Bat BMPs will be utilized to minimize impacts to this species.	Y
Montgomery	Mammals	tricolored bat	Perimyotis subflavus	Forest, woodland and riparian areas are important. Caves are very important to this species.	N	Please see Species Tab	No impact	Please see Species Tab	N
Montgomery	Mammals	big brown bat	Eptesicus fuscus	Any wooded areas or woodlands except south Texas. Riparian areas in west Texas.	Y	Pine and mixed hardwood forest are adjacent to the project area.	May impact	Suitable habitat is present within the project area. TPWD Bat BMPs will be utilized to minimize impacts to this species.	N
Montgomery	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	Pine and mixed hardwood forest are adjacent to the project area.	May impact	Suitable habitat is present within the project area. TPWD Bat BMPs will be utilized to minimize impacts to this species.	N
Montgomery	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	Pine and mixed hardwood forest are adjacent to the project area.	May impact	Suitable habitat is present within the project area. TPWD Bat BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Mammals	northern yellow bat	Lasiurus intermedius	Occurs mainly along the Gulf Coast but inland specimens are not uncommon. Prefers roosting in spanish moss and in the hanging fronds of palm trees. Common where this vegetation occurs. Found near water and forages over grassy, open areas. Males usually roost solitarily, whereas females roost in groups of several individuals.	N	No Spanish moss or palm trees were observed in the project area.	No impact	No suitable habitat is present within the project area.	N
Montgomery	Mammals	big free-tailed bat	Nyctinomops macrotis	Habitat data sparse but records indicate that species prefers to roost in crevices and cracks in high canyon walls, but will use buildings, as well; reproduction data sparse, gives birth to single offspring late June-early July; females gather in nursery colonies; winter habits undetermined, but may hibernate in the Trans-Pecos; opportunistic insectivore	N	No canyons or crevices in the project area. Culverts do occur in the project area, but most recordings/sightings are further west in the state.	No impact	No suitable habitat is present within the project area.	N

SPECIES ANALYSIS SUMMARY (SGCN)

Project Name:

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Montgomery	Mammals	swamp rabbit	<i>Sylvilagus aquaticus</i>	Primarily found in lowland areas near water including: cypress bogs and marshes, floodplains, creeks and rivers.	Y	Riparian habitats in forested areas with ephemeral waters were observed in the project area.	May impact	Suitable habitat is present within the project area. TPWD Terrestrial Mammal BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Mammals	muskkrat	<i>Ondatra zibethicus</i>	Found in fresh or brackish marshes, lakes, ponds, swamps, and other bodies of slow-moving water. Most abundant in areas with cattail. Dens in bank burrow or conical house of vegetation in shallow vegetated water. It is primarily found in the Rio Grande near El Paso and in SE Texas in the Houston area.	N	Riparian habitats in forested areas with ephemeral waters were observed in the project area. No marsh vegetation around aquatic features for refugia.	No impact	No suitable habitat is present within the project area.	N
Montgomery	Mammals	long-tailed weasel	<i>Mustela frenata</i>	Includes brushlands, fence rows, upland woods and bottomland hardwoods, forest edges & rocky desert scrub. Usually live close to water.	Y	Open prairie, fence rows, forest edges, and woodlands are adjacent to the project area near.	May impact	Suitable habitat is present within the project area. TPWD Terrestrial Mammal BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Mammals	eastern spotted skunk	<i>Spilogale putorius</i>	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 prairie, fence rows, forest edges, and woodlands are adjacent to the project area near.	May impact	Suitable habitat is present within the project area. TPWD Terrestrial Mammal BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Mammals	western hog-nosed skunk	<i>Conepatus leuconotus</i>	Habitats include woodlands, grasslands & deserts, to 7200 feet, most common in rugged, rocky canyon country; little is known about the habitat of the ssp. <i>telmalestes</i>	Y	Open prairie, fence rows, forest edges, and woodlands are adjacent to the project area near.	May impact	Suitable habitat is present within the project area. TPWD Terrestrial Mammal BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Mammals	mountain lion	<i>Puma concolor</i>	Generalist; found in a wide range of habitats statewide. Found most frequently in rugged mountains & riparian zones.	Y	Riparian habitats in forested areas with ephemeral waters were observed in the project area. However, the area is developed enough and isolated by I-45 that the species is unlikely.	No impact	While there is suitable habitat is present within the project area there have been no records of this species in the action area of the project for many years.	N
Montgomery	Reptiles	western chicken turtle	<i>Deirochelys reticularia miaria</i>	Aquatic and terrestrial: This species uses aquatic habitats in the late winter, spring and early summer and then terrestrial habitats the remainder of the year. Preferred aquatic habitats seem to be highly vegetated shallow wetlands with gentle slopes. Specific terrestrial habitats are not well known.	Y	Aquatic habitats are present within the project area.	May impact	Suitable habitat is present within the project area. TPWD Terrestrial & Aquatic Reptile BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Reptiles	eastern box turtle	<i>Terrapene carolina</i>	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 enters 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	Riparian habitats in forested areas with ephemeral waters were observed in the project area.	May impact	Suitable habitat is present within the project area. TPWD Terrestrial Reptile BMPs will be utilized to minimize impacts to this species.	N

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Montgomery	Reptiles	western box turtle	<i>Terrapene ornata</i>	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	Prairie grassland, pasture, and woodlands are present in the project area. Ephemeral streams with some creek pools exist.	May impact	Suitable habitat is present within the project area. TPWD Terrestrial Reptile BMPs will be utilized to minimize impacts to this species.	Y
Montgomery	Reptiles	smooth softshell	<i>Apalone mutica</i>	Aquatic: Large rivers and streams; in some areas also found in lakes and impoundments (Ernst and Barbour 1972). Usually in water with sandy or mud bottom and few aquatic plants. Often basks on sand bars and mudflats at edge of water. Eggs are laid in nests dug in high open sandbars and banks close to water, usually within 90 m of water (Fitch and Plummer 1975).	N	No large rivers or streams, lakes or impoundments are in the project area.	No impact	No suitable habitat is present within the project area.	N
Montgomery	Reptiles	slender glass lizard	<i>Ophisaurus attenuatus</i>	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	Open grassland, prairie, woodland edge, longleaf pine flatwoods, and stream with some sandy soils are present in the project area.	May impact	Suitable habitat is present within the project area. TPWD Terrestrial Reptile BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Reptiles	timber (canebrake) rattlesnake	<i>Crotalus horridus</i>	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	Pine and deciduous woodlands, dense ground cover, ephemeral waters were observed in the project area.	May impact	Suitable habitat is present within the project area. TPWD Terrestrial Reptile BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Reptiles	pygmy rattlesnake	<i>Sistrurus miliarius</i>	The pygmy rattlesnake occurs in a variety of wooded habitats from bottomland coastal hardwood forests to upland savannas. The species is frequently found in association with standing water.	Y	Wooded habitats with ephemeral waters were observed in the project area.	May impact	Suitable habitat is present within the project area. TPWD Terrestrial Reptile BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Crustaceans	Houston burrowing crayfish	<i>Fallicambarus houstonensis</i>	All species in the genus <i>Fallicambarus</i> are primary burrowers (Guisas, 2007). It is clearly a primary burrower with 100% of adult and subadult specimens known from excavated burrows. Large numbers of juveniles were collected from Temporary pools (October through February) (Johnson, 2008).	Y	Terrestrial and aquatic habitats were observed in the project area.	May impact	Suitable habitat is present within the project area. TPWD Crayfish BMPs will be utilized to minimize impacts to this species.	N
Montgomery	Insects	A Mayfly	<i>Tricorythodes curvatus</i>	AR, OK, TX; mayflies distinguished by aquatic larval stage; adult stage generally found in bankside vegetation	Y	Aquatic habitat with bankside vegetation is present within the project area.	May impact	Suitable habitat is present within the project area. TPWD Aquatic Invertebrate BMPs will be utilized to minimize impacts to this species.	
Montgomery	Insects	American bumblebee	<i>Bombus pensylvanicus</i>	Habitat description is not available at this time.	N	An impact determination cannot be made at this time due to the lack of habitat description.	No impact	An impact determination cannot be made at this time due to the lack of habitat description.	N
Montgomery	Insects	Texas emerald dragonfly	<i>Somatochlora margarita</i>	East Texas pineywoods; springfed creeks and bogs; small sandy forested streams with moderate current	N	No spring fed creeks, bogs, or streams with moderate current were observed in the project area.	No impact	No suitable habitat is present within the project area.	N

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Montgomery	Plants	bristle nailwort	<i>Paronychia setacea</i>	Flowering vascular plant endemic to eastern southcentral Texas, occurring in sandy soils	N	No limestone barrens, gravelly or sandy slopes of grasslands were observed in the project area.	No impact	No suitable habitat is present within the project area.	N
Montgomery	Plants	panicked indigobush	<i>Amorpha paniculata</i>	A stout shrub, 3 m (9 ft) tall that grows in acid seep forests, peat bogs, wet floodplain forests, and seasonal wetlands on the edge of Saline Prairies in East Texas. It is distinguished from other <i>Amorpha</i> species by its fuzzy leaflets with prominent raised veins underneath, and the flower panicles, which are 8 to 16 inches long and slender, held above the foliage. Perennial; Flowering May-August.	N	No saline prairies occur in the project area.	No impact	No suitable habitat is present within the project area.	N
Montgomery	Plants	Wright's milkvetch	<i>Astragalus wrightii</i>	On sandy or gravelly soils; Flowering/fruiting: April and May	N	No sandy and gravelly soils were observed in the project area.	No impact	No suitable habitat is present within the project area.	N
Montgomery	Plants	Correll's false dragon-head	<i>Physostegia correllii</i>	Wet, silty clay loams on streamsides, in creek beds, irrigation channels and roadside drainage ditches; or seepy, mucky, sometimes gravelly soils along riverbanks or small islands in the Rio Grande; or underlain by Austin Chalk limestone along gently flowing spring-fed creek in central Texas; flowering May-September	N	Known occurrences of this plant are in Louisiana, Travis County, and Mexico.	No impact	No suitable habitat is present within the project area.	N
Montgomery	Plants	Texas sandmint	<i>Rhododon ciliatus</i>	Open sandy areas in the Post Oak Belt of east-central Texas; Annual; Flowering April-Aug; Fruiting May-Aug	N	No open sandy areas in the Post Oak Belt exist in the project area.	No impact	No suitable habitat is present within the project area.	N