

SPECIES ANALYSIS SPREADSHEET: Project Information Sheet

Project Name:	State Highway (SH) 36
CSJ(s):	0188-01-016
TxDOT District: <small>(Click dropdown arrow to select a District from List)</small>	Houston
County(ies): <small>(Click dropdown arrow to select each county)</small>	Fort Bend
Prepared by: <small>(Full Name)</small>	John Williams - Ecosystem Planning and Restoration
Date Completed: <small>(m/d/yyyy)</small>	12/12/2022

TxDOT ENV Spreadsheet Template date: November 9, 2022.

SPECIES ANALYSIS SUMMARY

Project Name: SH 36

CSJ(s): 1

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?
Fort Bend	Amphibians	Houston Toad	<i>Anaxyrus (Bufo) houstonensis (EX)</i>	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/A	There are no recent Houston Toad records from Brazos County, where USFWS considers the species extirpated.	E	No effect or take	E	No impact	The Houston Toad has been extirpated from Brazos County	N
Fort Bend	Birds	Attwater's Greater Prairie-chicken	<i>Tympanuchus cupido attwateri</i>	The species historically occurred throughout the Gulf Coast prairies from the Texas-Louisiana border south to the Rio Grande, but it is now restricted to narrow bands along the Texas coast, a few off-shore islands, and three remnant inland populations. Optimal habitat consists of well-drained grasslands with a high diversity of weeds, shrubs, and grasses comprising a variety of canopy cover, high vegetation density, and available surface water in the summer. During the breeding season, areas with short grasses and less than 25 percent leaf litter are utilized for nesting. During the summer, individuals utilize areas with shade from weeds, tall grasses, and shrubs. During the winter, individuals are found in moderate to Black Rails are year-round residents of the central and upper coast and migrants in the eastern part of the state.	N	Well drained, high quality prairies are not present within the action area. There is no suitable habitat for this species within the action area.	E	No effect or take	E	No impact	Habitat is not present for this species within the action area; therefore, impacts are not anticipated.	N
Fort Bend	Birds	Black Rail	<i>Laterallus jamaicensis</i>	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	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

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Fort Bend	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	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
Fort Bend	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	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
Fort Bend	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	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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Fort Bend	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	Y	A small area of mature Columbia bottomlands is present within the project area and is suitable habitat for the swallow-tailed kite.	—	N/A	T	May impact	The project area contains suitable habitat for this species and impacts to this habitat may impact the species.	N
Fort Bend	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.	Y	A parustrine forested oxbow wetland was located within the project area near the southern crossing of Seabourne Creek and is suitable habitat for the white-faced ibis.	—	N/A	T	May impact	The project area contains suitable habitat for this species and impacts to this habitat may impact the species.	N
Fort Bend	Birds	White-tailed Hawk	<i>Buteo albicaudatus</i>	This year-round resident species occurs throughout the Western Gulf Coastal Plain ecoregion of Texas and less frequently farther inland in the East Central Texas Plains and South Texas Plains regions. Near the coast, preferred habitat includes prairies, cordgrass flats, and live oak scrub. Further inland it inhabits prairies, mesquite and oak savannas, and mixed savanna-chaparral. Breeding occurs within open savannas with short trees and shrubs, such as mesquite (<i>Prosopis glandulosa</i>), hackberry (<i>Celtis laevigata</i>), and oak (<i>Quercus</i> sp.), with an average height of 12 feet and canopy diameter of 18 feet. Suitable coastal prairie habitat is similar to desirable	Y	A small area of mature Columbia bottomlands is present within the project area and is suitable habitat for the white-tailed hawk, which has been recorded near the project area.	—	N/A	T	May impact	The project area contains suitable habitat for this species and impacts to this habitat may impact the species.	N
Fort Bend	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	The action area is largely a mix of urban, suburban, and agricultural habitat and is not appropriate habitat for the whooping crane.	E	No effect or take	E	No impact	Habitat is not present for this species within the action area; therefore, impacts are not anticipated.	N
Fort Bend	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	While wetlands are present near Seabourne Creek they are within a closed canopy and are not suitable habitat for the wood stork.	—	N/A	T	No impact	Habitat is not present for this species within the action area; therefore, impacts are not anticipated.	N
Fort Bend	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	N	The Brazos River is not within the action area.	E	No effect or take	E	No impact	Habitat is not present for this species within the action area; therefore, impacts are not anticipated.	N

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Fort Bend	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	While no <i>Asclepias</i> species were identified along the maintained right of way during the field evaluation, they are assuredly present during the spring and summer and provide host plants for monarch butterflies.	C	May affect	—	N/A	This project may affect the monarch butterfly; however, this project is anticipated to be completed prior to the species being listed and consultation is not required for candidate species. The USFWS intends to propose listing the monarch in Fiscal Year 2024. If the monarch butterfly is proposed for listing during the life of this project, the impacts to monarch butterflies will be reevaluated to determine the appropriate course of action.	N
Fort Bend	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.	N	Evidence of bats was not located within project area culverts or mature trees.	—	N/A	T		Habitat is not present for this species within the action area; therefore, impacts are not anticipated.	N
Fort Bend	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.	N

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Fort Bend	Mollusks	Brazos Heelsplitter	<i>Potamilus streckersoni</i>	This species of freshwater mussel was recently discovered to be an independent species. It is currently only known to occur in the Brazos River north of the impoundments of Lake Granbury and Lake Whitney, as well as north of Possum Kingdom Reservoir.	N	The lower Brazos River is not within the project area and the species is believed to be extirpated from the project area.	—	N/A	T	No impact	Habitat is not present for this species within the action area; therefore, impacts are not anticipated.	N
Fort Bend	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	Seabourne Creek within the project area is not within the mapped Group 5 stream as depicted by the USFWS. The project area does not contain suitable habitat.	PT	No effect or take	T	No impact	Habitat is not present for this species within the action area; therefore, impacts are not anticipated.	N
Fort Bend	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	Sparsely vegetated prairies, including slick spots and mima mounds, were not observed within the action area during the field evaluation.	E	May affect	E	No impact	Habitat is not present for this species within the action area; therefore, impacts are not anticipated.	N
Fort Bend	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	Semi-arid, open areas, as well as areas with sandy soil, were not located within the project area.	—	N/A	T	No impact	Habitat is not present for this species within the action area; therefore, impacts are not anticipated.	N

SPECIES ANALYSIS SUMMARY (SGCN)

Project Name: SH 36

CSJ(s): 1

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Fort Bend	Amphibians	southern crawfish frog	<i>Lithobates areolatus areolatus</i>	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.	N	While some ephemeral wetlands were present, grassland habitats were not present in the project area.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Amphibians	Strecker's chorus frog	<i>Pseudacris streckeri</i>	Terrestrial and aquatic: Wooded floodplains and flats, prairies, cultivated fields and marshes. Likes sandy substrates.	N	wooded floodplains or cultivated fields with appropriate sandy substrates were not present within the project area. The project area does not contain suitable habitat for Strecker's chorus frogs.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Amphibians	Woodhouse's toad	<i>Anaxyrus woodhousii</i>	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.	N	In southeast Texas, records of Woodhouse's toads were concentrated in areas with sandy soils. No specimens have been observed in the Houston area since the 1950s.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Birds	bald eagle	<i>Haliaeetus leucocephalus</i>	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	N	Rivers and large lakes were not present in the project area.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Birds	Franklin's gull	<i>Leucophaeus pipixcan</i>	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	N	The project area is not on the coastline nor does it contain wet meadows, lakeshore, or islands.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Birds	Sprague's pipit	<i>Anthus spragueii</i>	Habitat description is not available at this time.	N	Suitable grassland habitat is not present in the project area.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Birds	western burrowing owl	<i>Athene cunicularia hypugaea</i>	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	While grassland habitat was not present in the project area, it is possible vacant lots present could serve as habitat for western burrowing owl.	May impact	Suitable habitat is present for this species within the project area; therefore, the proposed project may impact this species.	N
Fort Bend	Fish	Mississippi silvery minnow	<i>Hybognathus nuchalis</i>	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	Seabourne Creek within the project area could provide appropriate habitat.	May impact	Suitable habitat is present for this species within the project area; therefore, the proposed project may impact this species.	N
Fort Bend	Fish	silver chub	<i>Macrhybopsis storeriana</i>	Red River and Brazos River basins. Mainly restricted to large, often silty rivers. Ranges over gravel to silt substrates but found more commonly over silt or mud bottom.	N	Large rivers were not present in the project area. Seabourne Creek within the project area does not provide appropriate depth or flow.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Fish	sharpnose shiner	<i>Notropis oxyrinchus</i>	Range is now restricted to upper Brazos River upstream of Possum Kingdom Lake. May be native to Red River and Colorado River basins. Typically found in turbid water over mostly silt and shifting sand substrates.	N	The Brazos River is not within the project area.	No impact	Habitat is not present for this species within the action area; therefore, impacts are not	N

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SPECIES ANALYSIS SUMMARY (SGCN)

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Fort Bend	Fish	silverband shiner	<i>Notropis shumardi</i>	In Texas, found from Red River to Lavaca River; Main channel with moderate to swift current velocities and moderate to deep depths; associated with turbid water over silt, sand, and gravel.	N	Deep, turbid streams were not present in the project area.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Mammals	big brown bat	<i>Eptesicus fuscus</i>	Any wooded areas or woodlands except south Texas. Riparian areas in west Texas.	Y	Wooded areas within the project area could provide appropriate habitat. No bats or evidence of bats was identified during the field evaluation.	May impact	Suitable habitat is present for this species within the project area; therefore, the proposed project may impact this species.	N
Fort Bend	Mammals	big free-tailed bat	<i>Nyctinomops macrotis</i>	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; 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 Texas.	N	The project area does not contain canyon walls or buildings suitable for roosting.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Mammals	eastern red bat	<i>Lasiurus borealis</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. 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	Y	Wooded areas within the project area could provide appropriate habitat. No bats or evidence of bats was identified during the field evaluation.	May impact	Suitable habitat is present for this species within the project area; therefore, the proposed project may impact this species.	N
Fort Bend	Mammals	eastern spotted skunk	<i>Spilogale putorius</i>	Includes brushlands, fence rows, upland woods and bottomland hardwoods, forest edges & rocky desert scrub. Usually live close to water.	Y	Cropland, fence rows, and wooded habitat within the project area could provide appropriate habitat.	May impact	Suitable habitat is present for this species within the project area; therefore, the proposed project may impact this species.	N
Fort Bend	Mammals	hoary bat	<i>Lasiurus cinereus</i>	Generalist; found in a wide range of habitats statewide. Found most frequently in rugged mountains & riparian zones.	Y	Wooded areas within the project area could provide appropriate habitat. No bats or evidence of bats was identified during the field evaluation.	May impact	Suitable habitat is present for this species within the project area; therefore, the proposed project may impact this species.	N
Fort Bend	Mammals	long-tailed weasel	<i>Mustela frenata</i>	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.	Y	Bottomland wooded areas are found within the project area and could provide appropriate habitat.	May impact	Suitable habitat is present for this species within the project area; therefore, the proposed project may impact this species.	N
Fort Bend	Mammals	mountain lion	<i>Puma concolor</i>	Generalist; found in a wide range of habitats statewide. Found most frequently in rugged mountains & riparian zones.	N	The project area does not contain rugged mountains. Project area is not large enough to provide habitat for the	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Mammals	Northern yellow bat	<i>Lasiurus intermedius</i>	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	Roosting areas in spanish moss and palm trees not present within the project area.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Mammals	swamp rabbit	<i>Sylvilagus aquaticus</i>	Primarily found in lowland areas near water including: cypress bogs and marshes, floodplains, creeks and rivers.	Y	Lowland forested areas near Seabourne Creek could provide suitable habitat for this species.	May impact	Suitable habitat is present for this species within the project area; therefore, the proposed project may impact this species.	N

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TxDOT ENV Spreadsheet Template date: November 9, 2022.

SPECIES ANALYSIS SUMMARY (SGCN)

Project Name: SH 36

CSJ(s): 1

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?
Fort Bend	Mammals	tricolored bat	<i>Perimyotis subflavus</i>	Forest, woodland and riparian areas are important. Caves are very important to this species.	N	The project area does not contain caves.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	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>	N	While wooded areas are present within the project area rocky canyon country is not.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	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	Y	Forested and shrubby areas near Seabourne Creek could provide suitable habitat for this species.	May impact	Suitable habitat is present for this species within the project area; therefore, the proposed project may impact this species.	N
Fort Bend	Reptiles	Prairie Skink	<i>Plestiodon septentrionalis</i>	The prairie skink can occur in any native grassland habitat across the Rolling Plains, Blackland Prairie, Post Oak Savanna and Pineywoods ecoregions.	N	Native grassland habitat was not located in the project area.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	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.	N	Sandy grassland habitats were not present in the project area.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	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	Large rivers and streams with sandbars and mudflats were not present in the project area.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	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.	N	Forest with dense ground cover was not located in the project area.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	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.	N	Grassland habitat was not located in the project area.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	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.	N	The project area does not contain large vegetated shallow wetlands.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Plants	awnless bluestem	<i>Bothriochloa exaristata</i>	Coastal prairies on black clay; Perennial; Flowering April-Dec; Fruiting April- Dec	N	Coastal prairies were not located in the project area.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N

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Fort Bend	Plants	corkwood	<i>Leitneria pilosa</i> <i>ssp. pilosa</i>	Wet or saturated silty soils along brackish or freshwater swamps and ponds and other low, poorly drained sites; flowers in early spring, fruiting as early as May	N	Saturated silty soils in swamps were not present in the project area.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Plants	Sutherland hawthorn	<i>Crataegus viridis</i> <i>var. glabriuscula</i>	In mesic soils of woods or on edge of woods, treeline/fenceline, or thicket. Above/near creeks and draws, in river bottoms. Flowering Mar-Apr; fruiting May-Oct.	N	Mesic soils of woods were not present in the project area.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Plants	Texas pinkroot	<i>Spigelia texana</i>	Woodlands on loamy soils; Perennial; Flowering March-Nov; Fruiting April-Nov	N	Loamy soils were not present in the project area. The project area was dominated by clay soils.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Plants	Texas tauschia	<i>Tauschia texana</i>	Occurs in loamy soils in deciduous forests or woodlands on river and stream terraces; Perennial; Flowering/Fruiting Feb-April	N	Loamy soils were not present in the project area. The project area was dominated by clay soils.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N
Fort Bend	Plants	threeflower broomweed	<i>Thurovia triflora</i>	Near coast in sparse, low vegetation on a veneer of light colored silt or fine sand over saline clay along drier upper margins of ecotone between salty prairies and tidal flats; further inland associated with vegetated slick spots on prairie mima mounds; flowering September-November	N	Salty prairie and tidal flats were not present in the project area.	No impact	Habitat is not present for this species within the project area; therefore, impacts are not anticipated.	N