

SPECIES ANALYSIS SPREADSHEET: Project Information Sheet

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| Project Name: | McCart Avenue & Altamesa Boulevard Intersection |
| CSJ(s): | 0902-090-119 and 0902-090-192 |
| TxDOT District: (Click dropdown arrow to select a District from List) | Fort_Worth |
| County(ies): (Click dropdown arrow to select each county) | Tarrant |
| Prepared by: (Full Name) | Joshua Zatopek- AmaTerra Environmental, Inc. |
| Date Completed: (m/d/yyyy) | 3/2/2022 |

TxDOT ENV Spreadsheet Template date: November 9, 2021.

SPECIES ANALYSIS SUMMARY
Project Name: McCart Avenue Altamesa Boulevard Intersection
CSJ(s): 0902-090-119 and 0902-090-192

| 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? |
|---------|-------|------------------------|--------------------------------------|---|---------------------------|---|----------------|--|--------------|---|--|------------------------------------|
| Tarrant | 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 | The project area lacks salt, brackish, and freshwater marshes, pond borders, wet meadows, and wetlands with hydrophytic grass species. | T | No effect or take | T | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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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| Tarrant | 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 |
| Tarrant | 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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| Tarrant | 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 | The project does not occur in the Western Gulf Coastal Plains ecoregion of Texas. The project area lacks freshwater wetlands, marshes, ponds, rivers, irrigated land, and sloughs. | — | N/A | T | No impact | The project does not occur within the Western Gulf Coastal Plains ecoregion of Texas. No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 project area lacks bottomlands of large rivers and marshes, flooded cropland, playas, and wetlands. | E | No effect or take | E | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 | The project occurs in an urban area. | C | No effect or take | — | N/A | Although the project occurs in an urban area, the project is unlikely to effect this species. | N |
| Tarrant | Mammals | Black Bear | <i>Ursus americanus</i> | Once widespread throughout the state, both subspecies of American black bear (<i>Ursus americanus eremicus</i> and <i>U. a. amblyceps</i>) have been restricted to west Texas, primarily in or near the larger mountain ranges such as the Chisos and Guadalupe Mountains, but occasionally in the Edwards Plateau region. Preferred habitat consists of desert scrub, chaparral, and juniper-oak or pinyon-oak woodlands. Optimal brushy and forest habitats consist of moderate to high density and canopy cover, high species diversity, rugged topography, and low human population. | N | The project area occurs in an urban area and lacks desert scrub, chaparral, and juniper-oak or pinyon-oak woodlands. | — | N/A | T | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |

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| Tarrant | 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 | The project area lacks streams and medium-sized rivers. | — | N/A | T | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 | The project area lacks small to large rivers. | — | N/A | T | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Mollusks | Texas Heelsplitter | <i>Potamilus amphichaenus</i> | A freshwater mussel currently known from the Trinity, Neches, and Sabine River basins. The species occurs in small streams to medium rivers with sand or mud substrate. It is found in flowing water but not in riffles or shoals. It prefers quiet waters and can be found in reservoirs. | N | The project area lacks small streams to medium rivers. | — | N/A | T | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Reptiles | Alligator Snapping Turtle | <i>Macrochelys temminckii</i> | Occurs in East Texas where it inhabits perennial water bodies such as the deep water of rivers, canals, lakes, and oxbows, along with swamps, bayous, and ponds near deep running water. Preferred habitat is usually in water with a mud bottom and abundant aquatic vegetation, but the species may use sand-bottomed creeks. | N | The project area lacks perennial waterbodies. | PT | No effect or take | T | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 | The project area lacks semi-arid open areas with scattered vegetation. | — | N/A | T | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |

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|--------|------------------------|--|--|---------------------------|--|----------------|--|--------------|---|---|------------------------------------|
| Fishes | Atlantic Sturgeon | <i>Acipenser oxyrinchus oxyrinchus</i> | The species is primarily found in the Atlantic from Canada to Florida, but occasionally occurs in the Gulf of Mexico. It has not been recorded off the Texas coast. It is primarily a marine species, when not breeding, but is found close to shore. It migrates to rivers and brackish water features (sometimes tidal) in the spring and fall to spawn, usually over bottoms of hard clay, rubble, gravel, and/or shell. | | | E | | — | N/A | | |
| Fishes | Giant Manta Ray | <i>Manta birostris</i> | The giant manta ray has a world-wide distribution, but is currently limited to several highly fragmented populations. It is the largest species of ray with a wingspan of up to 29 feet. The giant manta ray is a filter feeder that forages primarily on microscopic organisms, but is known to consume some small fish. Common occurrences are in oceanic waters, offshore, and near protective coastlines. The species has been documented in the Gulf of Mexico, including juvenile nursery grounds at Flower Garden Banks National Marine Sanctuary off the coast of Texas. This species also occasionally occurs in estuarine waters near ocean inlets at potential nursery grounds. | | | T | | — | N/A | | |
| Fishes | Great Hammerhead | <i>Sphyrna mokarran</i> | This generalist species of shark prefers warm coastal waters where it occurs. However, it can be found in deep open ocean as well as shallow coastal waters. It migrates seasonally in search of ideal water temperatures. | | | — | N/A | T | | | |
| Fishes | Largetooth Sawfish | <i>Pristis pristis</i> | This species has the widest historic range of all the sawfish species; however, worldwide populations have decreased dramatically. Adult habitat includes inshore coastal waters, lagoons, river mouths, and estuaries, and juveniles inhabit fresh water systems that have connectivity to brackish or marine coastal systems. The species has been documented at the Flower Garden Banks National Marine Sanctuary. This species feeds on invertebrates and small fishes. Historically, the Gulf of Mexico along the Texas coast had a large population; however, the Texas coast population has dramatically decreased, and it has not been recorded off the coast of Texas since 1943. | | | E | | — | N/A | | |
| Fishes | Oceanic Whitetip Shark | <i>Carcharhinus longimanus</i> | This pelagic shark ranges from Argentina to Maine, including the Gulf of Mexico, the Pacific Ocean, and the Caribbean Sea. It is generally a surface-dwelling species, but it can also be found in water depths up to 183 meters. The oceanic whitetip shark generally remains offshore in the open ocean or along the outer continental shelf, but is occasionally found near oceanic islands. It prefers water temperatures greater than 20 degrees Celsius. | | | T | | T | | | |

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| Fishes | Scalloped Hammerhead Shark | <i>Sphyrna lewini</i> | This coastal pelagic species is highly migratory and primarily inhabits deeper temperate, warm, and tropical waters worldwide. Adults of the species have been recorded along the continental shelf off Texas, the Flower Garden Banks National Marine Sanctuary, Stetson Bank, and Padre Island National Seashore. Juveniles have been recorded within nurseries in Texas coastal bays and estuaries. The females return to their natal sites, which generally include shallow nearshore waters like bays and estuaries used for nurseries. They typically feed on mackerel, herring, and sardines; however, they occasionally feed on octopus and squid. | | | T | | — | N/A | | |
| Fishes | Shortfin Mako | <i>Isurus oxyrinchus</i> | This species of shark prefers the surface of open warm seas in the Gulf of Mexico. It feeds primarily on schooling fishes like mackerels and herrings. | | | — | N/A | T | | | |
| Fishes | Shortnose Sturgeon | <i>Acipenser brevirostrum</i> | The shortnose sturgeon inhabits rivers and Atlantic coastal bays and estuaries from Canada to Florida. The species has not been documented near the Texas coast or in the Gulf of Mexico. | | | E | | — | N/A | | |
| Invertebrates | Boulder Star Coral | <i>Orbicella franksi</i> | This rare coral is endemic to the Gulf of Mexico and Caribbean Sea, specifically in areas around Florida, Bermuda, and the Bahamas. It is known to occur in the Flower Garden Banks National Marine Sanctuary which is located approximately 70 to 115 miles off the coasts of Texas and Louisiana. It is an important reef building species that forms domes, columns, and flat shelf-like colonies. Preferred habitat includes most reef environments and depths ranging from 1 to 82 meters. The species requires very specific water parameters and is highly sensitive to changes in water and air temperatures, salinity, methane gasses and carbon dioxide concentrations, light levels, ultraviolet radiation, water quality, turbulence, and sedimentation. | | | T | | — | N/A | | |
| Invertebrates | Elkhorn Coral | <i>Acropora palmata</i> | The elkhorn coral is found in the Gulf of Mexico and Caribbean Sea including Flower Garden Banks National Marine Sanctuary, which is located approximately 70 to 115 miles off the coasts of Texas and Louisiana. This coral species reproduces asexually and sexually and is found in reef environments in deeper, more protected, water depths from 5 to 20 meters and in more shallow, turbulent water at depths of 1 to 5 meters. On rare occasions, it can be found at depths of 60 meters. The tolerable water temperature range for this species is 21 to 29 degrees Celsius. Temperatures outside this range, even 1-2 degrees Celsius, may cause stress to the coral and induce a bleaching event that can cause death. Corals are also vulnerable to water salinity, air temperatures, methane gasses and carbon dioxide, decreased or high light levels, increased ultraviolet radiation, high or increased water turbulence, and burial by sedimentation. | | | T | | — | N/A | | |

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| Invertebrates | Lobed Star Coral | <i>Orbicella annularis</i> | This hermaphroditic broadcast-spawning coral grows in shallow reef systems and can be found at depths up to 82 meters. The species range is from Latin America through the Gulf of Mexico, including the Flower Garden Banks National Marine Sanctuary, and extending north and east to Bermuda and the Caribbean. It is often one of the most dominant and abundant species where found. This coral species can form massive colonies, is considered a reef-builder, and provides other reef dwellers refuge from predators. The tolerable water temperature range for this species is 23 to 29 degrees Celsius. Temperatures outside this range, even 1-2 degrees Celsius, may cause stress to the coral and induce a bleaching event that can cause death. Corals are also vulnerable to water salinity, air temperatures, methane gasses and carbon dioxide, decreased or high light levels, increased ultraviolet radiation, high or increased water turbulence, and burial by sedimentation. Any of these events lasting longer than a few weeks will most likely result in death. | | | T | | — | N/A | | |
| Invertebrates | Mountainous Star Coral | <i>Orbicella faveolata</i> | The mountainous star coral occurs in shallow waters in the Gulf of Mexico and Caribbean Sea. It has been documented in the Flower Garden Banks National Marine Sanctuary, which is from 70 to 115 miles off the Texas coast. This species can grow in water depths up to 40 meters. The mountainous star coral is often one of the most dominant and abundant species where found. The tolerable water temperature range for this species is 23 to 29 degrees Celsius. Temperatures outside this range, even 1-2 degrees Celsius, may cause stress to the coral and induce a bleaching event that can cause death. Corals are also vulnerable to water salinity, air temperatures, methane gasses and carbon dioxide, decreased or high light levels, increased ultraviolet radiation, high or increased water turbulence, and burial by sedimentation. | | | T | | — | N/A | | |
| Invertebrates | Pillar Coral | <i>Dendrogyra cylindrus</i> | Pillar corals range from Latin America north through the Gulf of Mexico to the coast of Florida. This broadcast-spawning coral reproduces sexually and is found in sheltered reef environments. The species can live in water depths up to 25 meters. Corals are vulnerable to changes in water salinity, air and water temperatures, concentrations of methane gasses and carbon dioxide, light levels, increased ultraviolet radiation, high water turbulence, and burial by sedimentation. | | | T | | — | N/A | | |

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| Invertebrates | Rough Cactus Coral | <i>Mycetophyllia ferox</i> | The rough cactus coral inhabits sheltered reef environments in the Gulf of Mexico and Caribbean Sea. This species can grow in water depths from 5 to 30 meters. The tolerable water temperature range for this species is 0 to 25 degrees Celsius. Temperatures outside this range, even 1-2 degrees Celsius, may cause stress to the coral and induce a bleaching event that can cause death. Corals are also vulnerable to water salinity, air temperatures, methane gasses and carbon dioxide, decreased or high light levels, increased ultraviolet radiation, high or increased water turbulence, and burial by sedimentation. Any of these events lasting longer than a few weeks will most likely result in death. | | | T | | — | N/A | | |
| Invertebrates | Staghorn Coral | <i>Acropora cervicornis</i> | The staghorn coral occurs throughout the Caribbean Sea and southern Gulf of Mexico, including Flower Gardens National Marine Sanctuary. This species can grow in water depths up to 30 meters. The tolerable water temperature range for this species is 20 to 30 degrees Celsius. Temperatures outside this range, even 1-2 degrees Celsius, may cause stress to the coral and induce a bleaching event that can cause death. Corals are also vulnerable to changes in salinity, air temperatures, concentrations of methane gasses and carbon dioxide, light levels, increased ultraviolet radiation, high or increased water turbulence, and burial by sedimentation. | | | T | | — | N/A | | |
| Mammals | Blue Whale | <i>Balaenoptera musculus</i> | The blue whale is the largest animal on the planet and found in all oceans with the exception of the Arctic Ocean. Its occurrence in the Gulf of Mexico is extremely rare with only two reported strandings along the Gulf coast (Louisiana and Texas). This baleen whale feeds almost exclusively on krill and seasonally migrates between winter breeding grounds (fall and winter) and summer feeding grounds (spring and summer). Its range extends from the subtropics to the Greenland Sea with sightings off of Canada's coast, the eastern United States, and infrequently in the Caribbean and Gulf of Mexico. | | | E | | E | | | |
| Mammals | Bryde's Whale | <i>Balaenoptera edeni</i> | Unlike other baleen whales, Bryde's whale is restricted to tropical, subtropical, and warm temperate waters of the Atlantic, Indian, and Pacific Oceans. Bryde's whales are smoky gray with light mottling and three distinctive parallel ridges that extend from the blowhole to the tip of the snout. Some populations are migratory while others are year-round residents. Bryde's whales feed on krill, shrimp, crabs, copepods, and schooling fish in the open ocean. | | | E | | E | | | |
| Mammals | False Killer Whale | <i>Pseudorca crassidens</i> | The false killer whale is a toothed whale that inhabits the tropical and subtropical waters of all oceans. It is usually observed in the open ocean but is found near land around oceanic islands and coasts with nearshore deep water. Two separate strandings have been documented on the Texas coast. The false killer whale generally feeds on squid and fish, but have been known to take marine mammals and other whales. | | | E | | T | | | |

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| Mammals | Fin Whale | <i>Balaenoptera physalus</i> | The fin whale is a cosmopolitan baleen species that is known from all oceans. It is pelagic and usually found 25 miles or more from the shore. This species migrates seasonally from high-latitude summer feeding grounds to low-latitude wintering areas. There has only been one sighting in Texas: a young whale stranded in Chambers County. | | | E | | E | | | |
| Mammals | Gulf of Mexico Bryde's Whale | <i>Balaenoptera edeni (GoM subspecies)</i> | The Gulf of Mexico subspecies of Bryde's whale is the only non-migratory resident baleen whale in the Gulf of Mexico. It is found primarily near the continental shelf off the Florida panhandle. The species is not documented in Texas waters; however, strandings have occurred along the Louisiana coast. They are a pelagic species and one of the more frequently observed baleen whales in the Gulf of Mexico. It is estimated that there are fewer than 100 individuals of the subspecies, with fewer than 50 mature individuals. | | | E | | E | | | |
| Mammals | Humpback Whale | <i>Megaptera novaeangliae</i> | The humpback whale is found in all oceans up to the polar ice caps. The species follows distinct migratory patterns between summer feeding grounds in temperate regions to tropical waters during the winter breeding season. Humpback whales are a baleen species known for their exceptionally long flippers. There is only one documented occurrence of the species from the Texas coast in the early 1990's. | | | E | | E | | | |
| Mammals | Killer Whale | <i>Orcinus orca</i> | The killer whale is known to occur in every ocean, but they are most commonly found in colder temperate waters. The species is the most widely distributed of all whales and dolphins. It is often found in the southern part of the Gulf of Mexico; however, one individual was sighted in waters off Port Aransas, Texas in the northern Gulf of Mexico and another stranded individual was documented on South Padre Island in Texas. The killer whale is a top predator in the marine environment. | | | E | | T | | | |
| Mammals | North Atlantic Right Whale | <i>Eubalaena glacialis</i> | The species has worldwide distribution with known occurrences of single individuals and pods in the Gulf of Mexico, including near the Texas coast; however, reports of this species are rare. They are typically observed in pods in deeper water depths (greater than 500 feet deep); however, individuals of this species are known to hunt for prey close to shore and on occasion, beach themselves. Some pods will often reside in the same region for many years with little movement of immigration or emigration. They feed on other whales, sharks, turtles, seals, and sea birds. | | | E | | E | | | |
| Mammals | Sei Whale | <i>Balaenoptera borealis</i> | The sei whale is a baleen species that inhabits subtropical, temperate, and subpolar waters worldwide. It prefers deeper waters offshore where it feeds on plankton, small schooling fish, and cephalopods. This species has annual migrations from subtropical, temperate waters during the winter (breeding) to subpolar, cool waters in the summer. | | | E | | E | | | |

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| Mammals | Sperm Whale | <i>Physeter macrocephalus</i> | The sperm whale is a toothed whale that ranges from Alaska south along the Pacific coast to the Pacific Islands, along the Atlantic coast from New England to Florida, and throughout the Gulf of Mexico. This species is regularly seen in the Gulf of Mexico with more than 25 individuals observed, and two individuals were tracked swimming along the Texas coastline off South Padre Island and Port Aransas, Texas. This species feeds on cuttlefish, squids, octopus, and other marine animals. | | | E | | E | | | |
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SPECIES ANALYSIS SUMMARY NOTES

| Common Name | Scientific Name | Notes |
|------------------------------------|--|---|
| Ashy Dogweed | <i>Thymophylla tephroleuca</i> | Note: This species is listed by TPWD but not by IPaC in the following county: Jim Hogg. |
| Attwater's Greater Prairie-chicken | <i>Tympanuchus cupido attwateri</i> | Note: This species is listed by TPWD but not by IPaC in the following counties: Fort Bend, Wharton. |
| Barton Springs Salamander | <i>Eurycea sosorum</i> | Note: This species is listed by TPWD but not by IPaC in the following county: Williamson. |
| Bee Creek Cave Harvestman | <i>Texella reddelli</i> | Note: This species is listed by TPWD but not by IPaC in the following county: Williamson. |
| Big Bend Gambusia | <i>Gambusia gaigei</i> | |
| Black Bear | <i>Ursus americanus</i> | |
| Black Lace Cactus | <i>Echinocereus reichenbachii</i> var. <i>albertii</i> | Note: This species is listed by TPWD but not by IPaC in the following counties: Duval, Nueces. |
| Black Rail | <i>Laterallus jamaicensis</i> | Note: This species is listed by TPWD but not by IPaC in the following counties: Anderson, Aransas, Archer, Austin, Bastrop, Baylor, Bee, Bell, Borden, Bosque, Brazoria, Brazos, Briscoe, Brown, Burleson, Caldwell, Calhoun, Callahan, Cameron, Chambers, Childress, Clay, Coke, Coleman, Collin, Colorado, Comanche, Cooke, Coryell, Cottle, Crosby, Dallas, Delta, Denton, DeWitt, Dickens, Eastland, Ellis, Erath, Falls, Fannin, Fayette, Fisher, Floyd, Foard, Fort Bend, Franklin, Freestone, Galveston, Garza, Goliad, Gonzales, Grayson, Grimes, Guadalupe, Hale, Hall, Hamilton, Hardeman, Harris, Haskell, Henderson, Hill, Hood, Hopkins, Houston, Howard, Hunt, Hutchinson, Jack, Jackson, Jefferson, Johnson, Jones, Karnes, Kaufman, Kenedy, Kent, King, Kleberg, Knox, Lamar, Lampasas, Lavaca, Lee, Leon, Liberty, Limestone, Lubbock, Lynn, Madison, Matagorda, McLennan, Milam, Mills, Mitchell, Montague, Montgomery, Motley, Navarro, Nolan, Nueces, Palo Pinto, Parker, Rains, Red River, Refugio, Robertson, Rockwall, Runnels, San Jacinto, San Patricio, Scurry, Shackelford, Somervell, Stephens, Stonewall, Swisher, Tarrant, Taylor, Throckmorton, Travis, Van Zandt, Victoria, Walker, Waller, Washington, Wharton, Wichita, Wilbarger, Williamson, Wilson, Wise, Wood, Young. |
| Brazos Heelsplitter | <i>Potamilus streckersoni</i> | Note: Not currently mapped by RTEST. See habitat description. Possible counties based on literature include: Young, Palo Pinto, Hood, Somervell, Bosque, Hill, Johnson |
| Carolinae Tryonia | <i>Tryonia oasiensis</i> | Note: Not currently mapped by RTEST. See habitat description. County location based on literature: Terrell |
| Comanche Springs Pupfish | <i>Cyprinodon elegans</i> | Note: This species is listed by TPWD but not by IPaC in the following county: Pecos. |
| Eskimo Curlew | <i>Numenius borealis</i> | Note: This species is listed by TPWD but not by IPaC in the following counties: Cameron, Cooke, Galveston, Kendall, San Patricio, Washington. |
| False Spike | <i>Fusconaia (=Quadrula) mitchelli</i> | Note: This species is listed by TPWD but not by IPaC in the following counties: Bastrop, Blanco, Burnet, Caldwell, Comal, Concho, Dewitt, |
| Fountain Darter | <i>Etheostoma fonticola</i> | Note: This species is listed by TPWD but not by IPaC in the following counties: Caldwell, Gonzales, Guadalupe. |

SPECIES ANALYSIS SUMMARY NOTES

| Common Name | Scientific Name | Notes |
|-------------------------------|--|--|
| Geocarpon Minimum | <i>Geocarpon minimum</i> | Note: This species is listed by TPWD but not by IPaC in the following county: Gregg, Palo Pinto |
| Golden-cheeked Warbler | <i>Setophaga chrysoparia</i> (formerly <i>Dendroica chrysoparia</i>) | Note: This species is listed by TPWD but not by IPaC in the following county: Parker. |
| Gonzales Tryonia | <i>Tryonia circumstriata</i> | Note: This species is listed by TPWD but not by IPaC in the following county: Terrell. |
| Great Hammerhead | <i>Sphyrna mokarran</i> | Note: Not currently mapped by RTEST. See habitat description. |
| Jollyville Plateau Salamander | <i>Eurycea tonkawae</i> | |
| Killer Whale | <i>Orcinus orca</i> | |
| Large-tooth Sawfish | <i>Pristis pristis</i> | |
| Louisiana Pigtoe | <i>Pleurobema riddellii</i> | |
| Mexican Spotted Owl | <i>Strix occidentalis lucida</i> | |
| North Atlantic Right Whale | <i>Eubalaena glacialis</i> | |
| Oceanic Whitetip Shark | <i>Carcharhinus longimanus</i> | |
| Opossum Pipefish | <i>Microphis brachyurus</i> | |
| Phantom Springsnail | <i>Cochliopa (=Pyrgulopsis) texana</i> | |
| Pillar Coral | <i>Dendrogyra cylindrus</i> | |
| Rafinesque's Big-eared Bat | <i>Corynorhinus rafinesquii</i> | |
| Ocelot | <i>Leopardus (=Felis) pardalis</i> | Note: This species is listed by TPWD but not by IPaC in the following counties: Kinney, Uvalde. |
| Ouachita Rock Pocketbook | <i>Arcidens (=Arkansia) wheeleri</i> | Note: This species is listed by TPWD but not by IPaC in the following counties: Lamar, Red River. |
| Rio Grande Chub | <i>Gila pandora</i> | |
| Rio Grande Silvery Minnow | <i>Hybognathus amarus</i> | |
| San Marcos Gambusia | <i>Gambusia georgei</i> | |
| Sei Whale | <i>Balaenoptera borealis</i> | |
| Slender Rush-pea | <i>Hoffmannseggia tenella</i> | |
| Rio Grande Darter | <i>Etheostoma grahami</i> | Note: This species is listed by TPWD but not by IPaC in the following counties: Crockett, Kinney, Maverick, Terrell, Val Verde, Webb. |
| Spotfin Gambusia | <i>Gambusia krumholzi</i> | |
| San Marcos Salamander | <i>Eurycea nana</i> | Note: This species is listed by TPWD but not by IPaC in the following county: Caldwell. |
| Sharpnose Shiner | <i>Notropis oxyrhynchus</i> | Note: This species is listed by TPWD but not by IPaC in the following counties: Austin, Bosque, Brazos, Burleson, Coke, Falls, Foard, Fort Bend, Garza, Hill, Limestone, McLennan, Milam, Mills, Robertson, San Saba, Travis, Waller, Washington, Wilbarger. |
| Texas Ayenia | <i>Ayenia limitaris</i> | |

SPECIES ANALYSIS SUMMARY NOTES

| Common Name | Scientific Name | Notes |
|------------------------|----------------------------|---|
| Texas Fatmucket | <i>Lampsilis bracteata</i> | Note: This species is listed by TPWD but not by IPaC in the following county: Llano. |
| Spotted Bat | <i>Euderma maculatum</i> | Note: This species is listed by TPWD but not by IPaC in the following county: Brewster. |
| Texas Horned Lizard | <i>Phrynosoma cornutum</i> | |
| Texas Pigtoe | <i>Fusconaia askewi</i> | |
| Texas Blind Salamander | <i>Eurycea rathbuni</i> | Note: This species is listed by TPWD but not by IPaC in the following counties: Blanco, Caldwell, Guadalupe. |
| Texas Fawnsfoot | <i>Truncilla macrodon</i> | Note: This species is listed by TPWD but not by IPaC in the following counties: Brazoria, Haskell, Jones, McLennan, Parker. |

| Taxon | Species (Common Name) | Reference 1 | Reference 2 | Reference 3 | Reference 4 |
|----------|---------------------------|---|---|--|--|
| All | All Species | NatureServe Explorer website http://explorer.natureserve.org | TPWD RTEST website https://tpwd.texas.gov/gis/rtest/ May 21, 2020 version retrieved June 20, 2020 | USFWS ECOS website https://ecos.fws.gov/ Retrieved August 16, 2019. | USFWS IPAC website https://ecos.fws.gov/ipac/ Retrieved August 2019. |
| Birds | Black Rail | https://ebird.org/species/blkrai | https://www.allaboutbirds.org/guide/Black_Rail/id | | |
| Birds | Whooping Crane | https://www.allaboutbirds.org/guide/Whooping_Crane/lifehistory | | | |
| Mammals | Black Bear | https://tpwd.texas.gov/landwater/land/habitats/trans_pecos/nogame/blackbear/ | https://tpwd.texas.gov/landwater/land/habitats/trans_pecos/nogame/blackbear/ | | |
| Mollusks | Texas Heelsplitter | Howells, R.G., R.W. Neck, and H.D. Murray. 1996. Freshwater Mussels of Texas. Texas Parks and Wildlife Press: Austin, Texas. 218 pp. | http://explorer.natureserve.org/servlet/NatureServe?sourceTemplate=tabular_report.wmt&loadTemplate=species_RptComprehensive.wmt&selectedReport=RptComprehensive.wmt&summaryView=tabular_report.wmt&elKey=115372&paging=home&save=true&startIndex=1&nextStartIndex=1&reset=false&offPageSelectedElKey=115372&offPageSelectedElType=species&offPageYesNo=true&post_processes=&radiobutton=radiobutton&selectedIndexes=115372 | | |
| Reptiles | Alligator Snapping Turtle | Dixon, J. R. 2013. Amphibians and Reptiles of Texas. Third Edition. Texas A&M University Press. College Station, Texas, USA. | | | |
| Reptiles | Texas Horned Lizard | https://tpwd.texas.gov/huntwild/wild/species/thlizard/ | | | |

SPECIES ANALYSIS SUMMARY (ADDENDUM)
 Project Name: McCart Avenue Altamesa Boulevard Intersection
 CSJ(s): 0902-090-119 and 0902-090-192

| 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? |
|--------|-------|-------------|-----------------|---------|---------------------------|--|----------------|--|--------------|---|---|------------------------------------|
|--------|-------|-------------|-----------------|---------|---------------------------|--|----------------|--|--------------|---|---|------------------------------------|

SPECIES ANALYSIS SUMMARY (SGCN)
 Project Name: McCart Avenue Altamesa Boulevard Intersection
 CSJ(s): 0902-090-119 and 0902-090-192

| 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? |
|---------|------------|----------------------------|-----------------------------|--|---------------------------|---|--------------------------------|---|-------------------------------------|
| Tarrant | 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. | N | The project area lacks forests, grasslands, and barrier island sand dunes. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Amphibians | Strecker's chorus frog | Pseudacris streckeri | Terrestrial and aquatic: Wooded floodplains and flats, prairies, cultivated fields and marshes. Likes sandy substrates. | N | The project area lacks wooded floodplains and flats, prairies, cultivated fields, and marshes. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 | N | The project area lacks rivers and large lakes in its vicinity. The project area lacks tall trees and cliffs. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Birds | mountain plover | Charadrius montanus | Breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous | N | The project area lacks high plains, shortgrass prairie, and dirt (plowed) fields. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Birds | Franklin's gull | Leucophaeus pipixcan | 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 | Although this species may fly overhead during its migration, no stopover habitat such as wetlands, lake shores, or islands exist in the project area. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 | The project area lacks grasslands such as prairie, plains, and savanna. The grassy areas in the project area where maintained yard grasses. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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. | N | The project area lacks shortgrass settings and occurs in an urban area. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 | N | The project area lacks open shortgrass settings, grain sorghum fields, and CRP lands. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |

SPECIES ANALYSIS SUMMARY (SGCN)
 Project Name: McCart Avenue Altamesa Boulevard Intersection
 CSJ(s): 0902-090-119 and 0902-090-192

| 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? |
|---------|---------|----------------------------|----------------------|--|---------------------------|--|--------------------------------|---|-------------------------------------|
| Tarrant | 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. | N | the project area lacks streams. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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. | N | The project area lacks rock crevices, old buildings, carports, and bridges in the immediate vicinity. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Mammals | tricolored bat | Perimyotis subflavus | Forest, woodland and riparian areas are important. Caves are very important to this species. | N | The project area lacks forests, woodlands, and riparian areas. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Mammals | big brown bat | Eptesicus fuscus | Any wooded areas or woodlands except south Texas. Riparian areas in west Texas. | N | The project area lacks wooded areas and woodlands. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 | N | The project area lacks forests. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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. | N | The project area lacks forests and open water and areas. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 | The project area lacks crevices and cracks in high canyon walls. No buildings will be impacted in result of the project. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |

SPECIES ANALYSIS SUMMARY (SGCN)
 Project Name: McCart Avenue Altamesa Boulevard Intersection
 CSJ(s): 0902-090-119 and 0902-090-192

| 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? |
|---------|----------|--------------------------|---------------------------------------|--|---------------------------|--|--------------------------------|---|-------------------------------------|
| Tarrant | Mammals | swamp rabbit | <i>Sylvilagus aquaticus</i> | Primarily found in lowland areas near water including: cypress bogs and marshes, floodplains, creeks and rivers. | N | The project area lacks cypress bogs and marshes, floodplains, creeks, and rivers in the immediate vicinity. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Mammals | black-tailed prairie dog | <i>Cynomys ludovicianus</i> | Dry, flat, short grasslands with low, relatively sparse vegetation, including areas overgrazed by cattle; live in large family groups | N | The project area lacks dry, flat, short grasslands and areas overgrazed by cattle. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 | The project area lacks fresh or brackish marshes, lakes, ponds, swamps, and other bodies of water. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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. | N | The project area lacks brushlands, fence rows, upland woods, bottomland hardwoods, forest edges, and rocky desert scrub. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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. | N | The project area lacks open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 | The project area lacks woodlands, grasslands, and rugged rocky country. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 lacks rugged mountains and riparian zones. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 lacks highly vegetated shallow wetlands and occurs in an urban area. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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. | N | The project area lacks forests, fields, forest-brush, and forest-field ecotones. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |

SPECIES ANALYSIS SUMMARY (SGCN)
 Project Name: McCart Avenue Altamesa Boulevard Intersection
 CSJ(s): 0902-090-119 and 0902-090-192

| 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? |
|---------|----------|--------------------------------|--------------------------------------|---|---------------------------|--|--------------------------------|---|-------------------------------------|
| Tarrant | 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 | The project area lacks prairie grassland, pasture, fields, sandhills, and open woodlands. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 | The project area lacks large rivers and streams. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 | The project area lacks open grassland, prairie, woodland edge, open woodland, oak savannas, longleaf pine flatwoods, scrubby areas, fallow fields, and areas near streams and ponds. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 | The project area lacks native grassland. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Reptiles | Texas garter snake | <i>Thamnophis sirtalis annectens</i> | 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. | N | The project area lacks grasslands and modified open areas near aquatic features. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | 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 | The project area lacks swamps, floodplains, upland pine, deciduous woodlands, riparian zones, and abandoned farmland. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Reptiles | western massasauga | <i>Sistrurus tergeminus</i> | Terrestrial: Shortgrass or mixed grass prairie, with gravel or sandy soils. Often found associated with draws, floodplains, and more mesic habitats within the arid landscape. Frequently occurs in shrub encroached grasslands. | N | The project area lacks shortgrass or mixed grass prairie along with draws, floodplains, mesic habitat within an arid landscape, and shrub encroached grasslands. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Insects | American bumblebee | <i>Bombus pensylvanicus</i> | Habitat description is not available at this time. | N | Habitat description is not available at this time. | No impact | Habitat description is not available at this time. | N |

SPECIES ANALYSIS SUMMARY (SGCN)
 Project Name: McCart Avenue Altamesa Boulevard Intersection
 CSJ(s): 0902-090-119 and 0902-090-192

| 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? |
|---------|---------|-----------------------------|-------------------------------------|---|---------------------------|--|--------------------------------|---|-------------------------------------|
| Tarrant | Insects | Comanche harvester ant | Pogonomyrmex comanche | Habitat description is not available at this time. | N | Habitat description is not available at this time. | No impact | Habitat description is not available at this time. | N |
| Tarrant | Plants | Topeka purple-coneflower | Echinacea atrorubens | Occurring mostly in tallgrass prairie of the southern Great Plains, in blackland prairies but also in a variety of other sites like limestone hillsides; Perennial; Flowering Jan-June; Fruiting Jan-May | N | The project area lacks tallgrass prairie, blackland prairie, and limestone hillsides. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Plants | Engelmann's bladderpod | Physaria engelmannii | Grasslands and calcareous rock outcrops in a band along the eastern edge of the Edwards Plateau, ranging as far north as the Red River (Carr 2015). | N | The project area lacks grasslands and calcareous rock outcrops. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Plants | Texas milk vetch | Astragalus reflexus | Grasslands, prairies, and roadsides on calcareous and clay substrates; Annual; Flowering Feb-June; Fruiting April-June | N | According to the USDA-NRCS, the Purves and Frio soil series consists of calcareous and clay substrates. However, the grasses in the roadsides consists of maintained yard grasses. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Plants | Hall's prairie clover | Dalea hallii | In grasslands on eroded limestone or chalk and in oak scrub on rocky hillsides; Perennial; Flowering May-Sept; Fruiting June-Sept | N | The project area lacks grasslands on eroded limestone or chalk and oak scrub on rocky hillsides. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Plants | Reverchon's scurfpea | Pediomelum reverchonii | Mostly in prairies on shallow rocky calcareous substrates and limestone outcrops; Perennial; Flowering Jun-Sept; Fruiting June-July | N | The project area lacks prairies on shallow rocky calcareous substrates and limestone outcrops. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Plants | Sutherland hawthorn | Crataegus viridis var. glabriuscula | 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 | The project area lacks mesic soils of woods or on edges of woods, treelines, fencelines, thickets, creeks, and river bottoms. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Plants | earleaf false foxglove | Agalinis auriculata | Known in Texas from one late nineteenth century specimen record labeled -Benbrook-; in Oklahoma, degraded prairies, floodplains, fallow fields, and borders of upland sterile woods; in Arkansas, blackland prairie; Annual; Flowering August - October | N | The project area lacks degraded prairie, floodplains, fallow fields, borders of upland sterile woods, and blackland prairie. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Plants | Osage Plains false foxglove | Agalinis densiflora | Most records are from grasslands on shallow, gravelly, well drained, calcareous soils; Prairies, dry limestone soils; Annual; Flowering Aug-Oct | N | The project area lacks grasslands on shallow, gravelly, well drained, calcareous soils. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |
| Tarrant | Plants | Glen Rose yucca | Yucca necopina | Grasslands on sandy soils and limestone outcrops; flowering April-June | N | The project area lacks grasslands on sandy soils and limestone outcrops. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |

SPECIES ANALYSIS SUMMARY (SGCN)
 Project Name: McCart Avenue Altamesa Boulevard Intersection
 CSJ(s): 0902-090-119 and 0902-090-192

| 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? |
|---------|--------|-----------------|-----------------|---|---------------------------|--|--------------------------------|---|-------------------------------------|
| Tarrant | Plants | Shinner's sedge | Carex shinnerii | Occurs in ditches and swales in prairie landscapes (Carr 2015). | N | The project area lacks a prairie landscape. | No impact | No suitable habitat for this species is present within or adjacent to the project area. | N |