

Technical Report: Threatened and Endangered Species

THREATENED AND ENDANGERED SPECIES EXISTING CONDITIONS

Under Section 7 of the Endangered Species Act (as amended), activities conducted, sponsored, or funded by federal agencies must be reviewed for their effects upon species federally listed or proposed for listing as threatened or endangered. Data regarding federally listed threatened and endangered species were provided by the US Fish and Wildlife Service (USFWS). Data regarding state listed species were provided by the Colorado Division of Wildlife (CDOW) and the Colorado Natural Heritage Program (CNHP). Federal- and state-listed threatened and endangered species potentially affected by the SH 16 project are listed in **Table 1**, presented in order from most likely to least likely to occur in the SH 16 study area.

Table 1
Federal and State Threatened and Endangered Species
Potentially Affected by the Project

Species Common Name <i>and Scientific Name</i>	Basis for Likelihood	Federal Status	State Status
KNOWN TO OCCUR			
Bald eagle <i>Haliaeetus leucocephalus</i>	Known to winter in the area; suitable habitat exists, but no nests were observed	Threatened	Threatened
MAY OCCUR			
Arkansas darter <i>Etheostoma cragini</i>	<i>Known to occur in Fountain Creek a half-mile south of the study area</i>	Candidate	Threatened
Burrowing owl <i>Athene cunicularia</i>	Not known to occur in the study area, but existing prairie dog colonies provide possible habitat; Not observed during surveys in 2005.	Not listed	Threatened

Species Common Name and Scientific Name	Basis for Likelihood	Federal Status	State Status
NOT LIKELY TO OCCUR			
Whooping crane <i>Grus americana</i>	Not known to occur; only marginal habitat is present	Endangered	Endangered
Black-footed ferret <i>Mustela nigripes</i>	No suitable habitat; prairie dog colonies not large enough	Endangered	Endangered
Least tern <i>Sterna antillarum</i>	Not known to occur; only marginal habitat is present	Endangered	Endangered
Pallid sturgeon <i>Scaphirhynchus albus</i>	No suitable habitat	Endangered	Endangered
Colorado butterfly plant <i>Gaura neomexicana</i>	No specimens found; habitat is marginal	Threatened	Critically Imperiled
Preble's meadow jumping mouse <i>Zapus hudsonious preblei</i>	Not known to occur; only marginal habitat is present	Threatened	Threatened
Mexican spotted owl <i>Strix occidentalis</i> spp	No suitable habitat	Threatened	Threatened
Piping plover <i>Chardris melodus circumcinctus</i>	No suitable habitat	Threatened	Threatened
Greenback cutthroat trout <i>Oncorhynchus clarki stomias</i>	No suitable habitat	Threatened	Threatened
Ute ladies'-tresses orchid <i>Spiranthes diluvialis</i>	No suitable habitat	Threatened	Not listed
Slender moonwort <i>Botrychium lineare</i>	Not known to occur; only marginal habitat is present	Not listed	S1

Note: T = Threatened; E = Endangered; C = Candidate; S1 = Critically Imperiled in Colorado according to CNHP.

The Mexican spotted owl, Whooping crane, Bald eagle, and Burrowing owl are additionally protected under the Migratory Bird Treaty Act of 1918.

Habitat evaluations were conducted in 2002, 2004, and 2005 to determine if potential habitat for threatened, endangered, and candidate species was present in the study area.

Species Known to Occur in the Study Area

The bald eagle is a winter resident of the study area. Suitable nesting habitat is present along the Fountain Creek riparian corridor and suitable foraging areas such as open ponds and black-tailed prairie dog colonies occur in and adjacent to the study area. However, no bald eagle nests were observed during site surveys.

Species That May Occur in the Study Area

The known distribution of the Arkansas darter includes Fountain Creek beginning at approximately 0.5 mile south of the study area to its confluence with the Arkansas River. Studies conducted by the CDOW in 1997 confirmed the presence of the Arkansas darter (a candidate species for federal listing and a state-listed threatened species) within this segment of river. A 1994 CDOW sampling located approximately one mile south of the study area included the Arkansas darter.

Western burrowing owl (*Athene cunicularia*) is a small ground dwelling bird normally found in grasslands or mountain parks, usually in or near prairie dog towns or ground squirrel burrows. General habitat and species occurrence surveys were conducted for this species in 2005. No burrowing owls, or active owl burrows were observed during these surveys. Based on the frequent occurrence of prairie dog burrows within and beyond the study area, individual or small populations of burrowing owl may occur occasionally on site. However, burrowing owls could move into prairie dog colonies of the study area and additional surveys will be conducted prior to construction.

Species that are Not Likely to Occur in the Study Area

The Greenback cutthroat trout is cold-water adapted for streams at higher elevations and is, therefore, not likely to occur in the study area.

Site surveys for Ute ladies'-tresses orchid and Colorado butterfly plant were conducted during summer 2002. Although areas of marginal habitat are present, no individuals of either species were observed.

The study area contains no suitable habitat for the Mexican spotted owl, black-footed ferret, or piping plover. Although marginal habitat is present for whooping crane, this species is highly unlikely to be present due to increased urban development and channelization of Fountain Creek and has not been reported in the vicinity.

Based on revised survey guidelines established by the USFWS in 2004, Preble's meadow jumping mouse (PMJM) habitat is defined as an area with well developed plains riparian vegetation with relatively undisturbed grassland and a water source in close proximity. Additionally, PMJM may occasionally occur as far as 330 feet outside of a riparian area in locations of undisturbed plains grassland with dense, diverse vegetation. Areas of marginal habitat were located on site along portions of Fountain Creek, but due to increased urban development and establishment of recreational hiking trails long the riparian zone, occurrence of this species is highly unlikely.

Additionally, a PMJM survey (trapping) was conducted by J.F. Sato and Associates in 1999 and found no occurrence of the species along Fountain Creek within the study area.

THREATENED AND ENDANGERED SPECIES IMPACTS

No-Action Alternative

In general, wildlife habitat would continue to be degraded and reduced by future development. Within and adjacent to the study area, development is occurring now and is planned to occur in the foreseeable future. Hundreds of acres of shortgrass prairie adjacent to the proposed project are being converted to development. Much of this land is disturbed and is located along Bandley Drive, in the vicinity of Rice Lane, or is located outside of the study area east of US 85. As development occurs, wildlife habitat is being replaced with parking lots, streets, buildings and non-native vegetation.

Proposed Action

The Proposed Action will not have an effect on any threatened or endangered species. Because the Proposed Action largely follows the existing SH 16 alignment, the amount of disturbance to potential habitat for threatened or endangered species would be small (about 0.34 acres) and mostly confined to disturbed upland areas within or adjacent to the existing right-of-way. Near Fountain Creek, however, the alignment of SH 16 would be shifted between 70 and 90 feet to the north, which would remove seven to ten plains cottonwood trees, some willow patches, and some other riparian and upland shrubs and grasses on approximately 0.24 acres. None of these areas are currently occupied by any threatened or endangered plant or animal species.

Impacts to aquatic resources, as a result of the Proposed Action, would include the displacement of substrate habitat associated with the placement of bridge pier columns. The existing channel width would not be directly impacted by the SH 16 bridge over Fountain Creek. Short term increases in sedimentation could occur during construction, but will be minimized by the use of Best Management Practices as specified in the stormwater management plan. The amount of daily traffic on SH 16 will increase 50 percent by 2030, thus increasing the amount of vehicle-generated water pollutants which may have a potential effect on aquatic species. Because stormwater quality basins and similar facilities will be designed and constructed to capture 100% of stormwater runoff from the highway's impervious surface, indirect impacts to the Arkansas darter, such as increased pollutant concentrations and water temperature, would not be likely following construction of the Proposed Action.

The SH 16 project is not expected to result in depletion of water in Fountain Creek. Water utilized for construction will be derived from Fountain and/or El Paso County municipal sources.

Since Bald Eagles were not found on-site or noted near the project area, no impacts are anticipated.

THREATENED AND ENDANGERED SPECIES MITIGATION

Any bald eagle nest or occupied burrow of the burrowing owl will be located prior to construction. All actively used nests or burrows will be protected and a buffer will be established around the nest or burrow in accordance with the requirements of the USFWS or CDOW as appropriate. Revegetation will include planting of plains cottonwood or other riparian trees in the low terrace on the west bank of Fountain Creek. Native tree species, such as plains cottonwoods approximately 1.5 inches in caliper, will be planted at a 1.5:1 ratio for all trees removed by construction.

Under the Short Grass Prairie Initiative (SGPI), CDOT purchased and is continuing to purchase large areas of land off site which will be conserved and will serve as off-site mitigation for impacts to any of the primary target species mentioned in the SGPI biological opinion. Land east of I-25 located within SH 16 project boundaries is included within the SGPI study area. One target species listed in the SGPI, Arkansas darter (federal candidate and state threatened species), may potentially occur in Fountain Creek within project boundaries. The darter will require on-site mitigation under the SGPI in the form of best management practices (BMP) including:

- ▶ Temporary and permanent erosion and sediment control measures will be installed to prevent siltation into state waters.
- ▶ Activities will be planned to avoid alteration of the natural water flow regime and natural flow improvements will be implemented where possible.
- ▶ Areas disturbed outside of the ordinary high water mark (OHWM) will be revegetated to provide bank stabilization, erosion control, and habitat replacement.
- ▶ Stormwater will be directed away from streams and associated wetlands to limit possible siltation.

- ▶ No vegetation clearing, grubbing, or grading will be conducted until just prior to other soil disturbance work is to begin in an area, and exposed areas will be stabilized as soon as work in the area is completed.
- ▶ Actions resulting in water or sediment disturbance underlying Fountain Creek will be avoided and debris from bridge repair will not be permitted to enter the waterway or surrounding habitat.
- ▶ Motor fuels, lubricants, and other toxic substances will be kept at least 50 feet from Fountain Creek. The most current edition of CDOT's Standard Specifications for Road and Bridge Construction will govern the use, storage, and stockpiling of chemicals in the vicinity of state waters.

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