



## Technical Report: Wildlife and Aquatic Resources

---

A wildlife assessment for the SH 16 study area was completed in September 2002. The wildlife assessment was undertaken to determine what species and habitat may occur in the study area and how they will be impacted by the Proposed Action. In February 2004 and August 2005, the site was revisited to review existing conditions and note any significant changes that may have occurred since 2002. Both state and federal listed threatened and endangered species also were assessed; identified species are discussed in the *Threatened and Endangered Species Technical Report, 2006* which can be found on the CD attached to this EA. This report on wildlife and aquatic resources only address species not listed as threatened or endangered.

According to mapping provided by the Environmental Protection Agency, the study area is located in the Southwestern Tablelands Ecoregion. This ecoregion encompasses about 35,660 mi<sup>2</sup> (92,359 km<sup>2</sup>) of south-central Colorado and northeastern New Mexico. The ecoregion is a subhumid grassland and semiarid rangeland. The natural vegetation in this ecoregion is grama-buffalo grass, sandsage/bluestem prairie, mesquite/buffalo grass, and bluestem grama prairie.

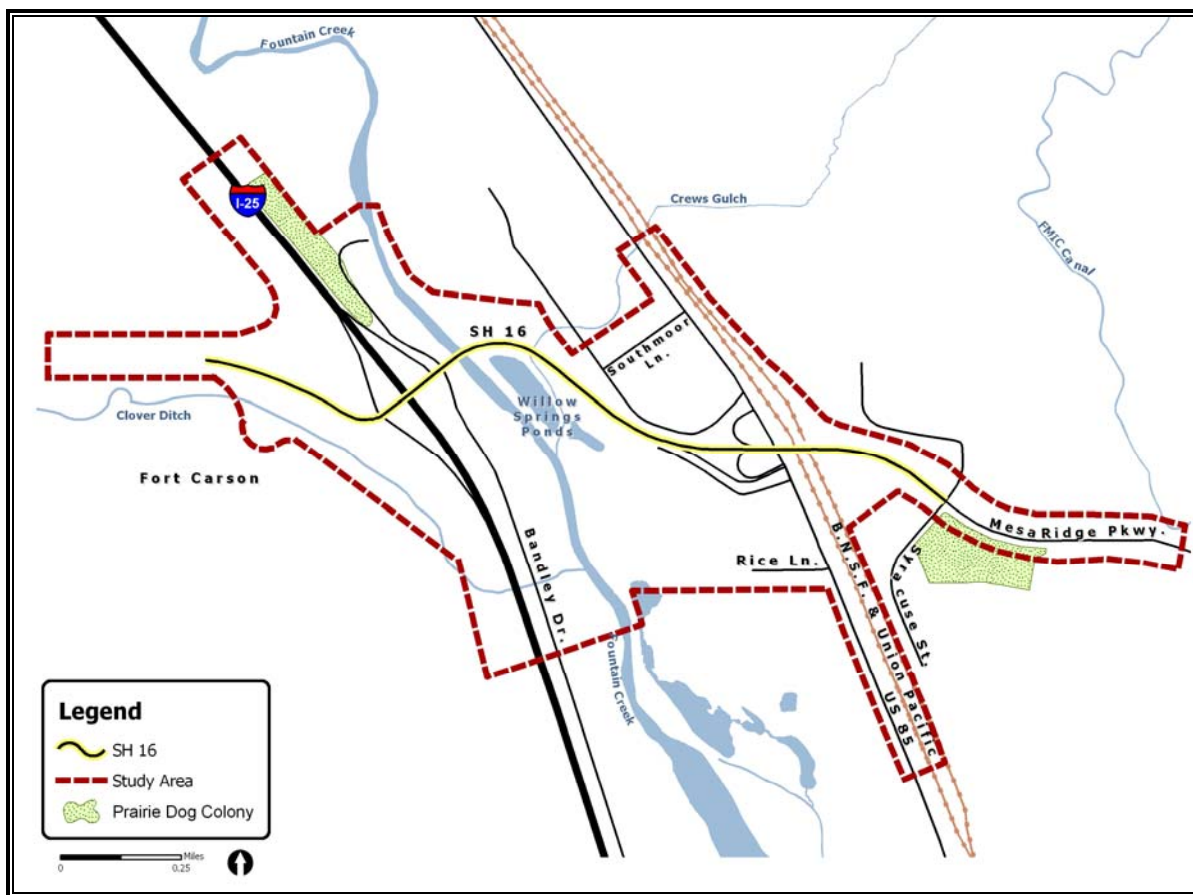
Within the study area, Fountain Creek Regional Park is an important area for wildlife. The Fountain Creek Regional Park comprises Fountain Creek, the Willow Springs Ponds, and a well-developed riparian area with a mature tree overstory (see **Figure 1**).

### WILDLIFE

The undeveloped shortgrass prairie adjacent to I-25 provides habitat for a variety of wildlife. Wetlands in constructed drainage channels of the eastern portion of the study area also provide wildlife habitat and movement corridors. Fountain Creek represents an important north-south wildlife movement corridor for the area. Due to the consistent source of water and habitat diversity, the Fountain Creek corridor is used by a wide variety of wildlife. Urban development and existing transportation routes including I-25, US 85 and the UP and BNSF railroads currently restrict east-west wildlife movement within the study area.

Common mammal species include beaver (*Castor canadensis*), muskrat (*Ondatra zibethicus*), skunk (*Mephitis spp.*), coyote (*Canis latrans*), red fox (*Vulpes spp.*), raccoon (*Procyon lotor*), rabbit (*Sylvilagus spp.*), mule deer (*Odocoileus hemionus*), and white-tail deer (*Odocoileus virginianus*). The swift fox has been observed in widely scattered locations in eastern El Paso County (CNHP, 2000). However, due to the urban nature of the site, it is unlikely that the swift fox exists within the study area boundaries. The Colorado Division of Wildlife (CDOW) has mapped much of the Fountain Creek corridor as a mule deer concentration area. Deer are drawn from the surrounding uplands to the riparian area for water, food, cover and thermal protection. Mountain lion (*Felis concolor*), bobcat (*Felis rufus*), elk (*Cervus elaphus*), Albert's squirrel (*Sciurus alberti*), and a solitary moose (*Alces alces*) also have been recorded within the past several years (CNHP, 2005).

**Figure 1**  
**Wildlife and Aquatic Resources in the Study Area**



The Black-tailed prairie dog is a State Species of Special Concern. Two black-tailed prairie dog colonies occur in the study area. During the site visit conducted in 2002, a 27-acre colony was observed northeast of the I-25 and SH 16 interchange, and a 16-acre colony was observed southeast of the SH 16 and Syracuse Street intersection. Since 2002, the 27-acre prairie dog town has been greatly reduced due to the construction of the Fountainhead Business Park. During a site visit in February 2006, the prairie dog town covered only 12 acres.

## **BIRDS**

The northern portion of the Fountain Creek Regional Park provides the most diverse wildlife habitat of the study area. Habitats provided by the park include grasslands, lower riparian, open water, shore/bank, and wetlands. Designated by the National Audubon Society as an Important Bird Area (essential bird habitat) of Colorado, over 250 bird species have been sighted in the park, including red-tailed hawk, waterfowl, wading birds, humming birds, great horned owl, jays, doves, gulls, finches, cardinals, grosbeaks, warblers, vireos and woodpeckers (Audubon Colorado, 2005). Many of these species have protection under the Migratory Bird Treaty Act, which prohibits the taking of active nests.

Five active great blue heron nests were present in a rookery at the Fountain Creek Nature Center (approximately one half mile south of the study area) in 2004. Fifteen nests were present the year before. A majority of great blue herons have moved to lakes outside of the study area (Audubon Colorado, 2005). Swallow nests are present under the SH 16 bridge over Fountain Creek and in a concrete box culvert on Mesa Ridge Parkway.

Two raptor nests (most likely red-tailed hawk nests) were noted during the February 2004 site visit. The red-tailed hawk is known to inhabit open areas with interspersed patches of trees and other elevated perch sites. The two nests were found approximately 0.25 mile from south of SH 16 in Fountain Creek Regional Park in tall cottonwood trees within the study area. Additional nests noted during the February 2004 site visit include four inactive songbird nests and one black-billed magpie nest. The songbird and magpie nests were located near the existing exit ramp from SH 16 to southbound US 85 and near the I-25/SH 16 interchange. The magpie nest was not present in the study area during the August 2005 visit. These surveys were general in nature, conducted to estimate number of live and active nesting sites within project boundaries.

Peregrine falcons may occasionally forage in the study area, but are unlikely to nest near the site due to the lack of high cliffs. The Ferruginous Hawk (*Buteo regalis*) may occasionally forage in the area, particularly during winter. Bird surveys have confirmed the existence of Prairie falcons (*Falco mexicanu*) breeding in El Paso County. The study area contains no suitable habitat for the Mountain plover (*Chardris montanus*). Although not considered rare and imperiled, these birds are being tracked by the CNHP (as State Species of Special Concern).

### REPTILES AND AMPHIBIANS

Reptiles in the Fountain Creek Regional Park include western painted and pond turtles, bull snake, and western terrestrial garter snake. Amphibians include tiger salamander, woodhouse toad, and bullfrog (El Paso County Website Review, 2005). Both the Northern leopard frog and the Plains Leopard Frog (both State Species of Special Concern) have been documented along Fountain Creek and could occur in the study area.

### AQUATIC RESOURCES

Fountain Creek is a perennial low-gradient stream flowing through the study area. Fountain Creek fish species recorded in a 1994 CDOW sampling survey located approximately one mile south of the study area included sand shiner, green sunfish, fathead minnow, longnose dace, and white sucker, and flathead chub (a State Species of Special Concern). Under Section 305(b) of the Clean Water Act, the Colorado Water Quality Control Division classifies surface water quality conditions according to the uses for which they are presently suitable or intended to become suitable. Suitable uses of Fountain Creek include Aquatic Life Class 2, Recreation, Domestic Water Supply, and Agriculture. For definitions of these uses please refer to the *Technical Report: Water Resources and Water Quality*.

Fish species are present in the Willow Springs Ponds located within Fountain Creek Regional Park. Studies conducted in 1997 confirmed that species include channel catfish, carp, golden shiner, largemouth bass, rainbow trout, white sucker, and European rudd. These ponds were closed to public fishing by El Paso County in 1997 due to concerns over water contamination, caused by industrial dumping of a solvent (PCE) that has migrated southward in groundwater.

## IMPACTS

Much of the wildlife habitat within the study area has been altered by human activity, including transportation, residential, commercial, and industrial development. Pictures of the study area are presented in the *Visual Quality Technical Report, 2006* which can be found on the CD attached to this EA. Though impacted, this area probably represents one of the least impacted areas in the vicinity, and as stated above serves as important food source, refugia, and travel corridors for numerous species.

### No-Action Alternative

The No-Action Alternative would not directly impact wildlife resources in the study area. Within and adjacent to the study area, development is occurring and is planned to occur. As discussed in the Land Use section, development is occurring north of SH 16 along Bandley Drive at the Fountainhead Business Park where 210 acres of short grass prairie will be converted to industrial, retail, medical, office, or hotel uses. Currently a mini-storage business, a large RV sales lot, and medical service building have been constructed. South of SH 16 along Bandley Drive, 90 acres of short grass prairie will be converted to commercial and light industrial uses. South of SH 16 grading and roadway construction has occurred, and a service station/convenience store is currently under construction. Along US 85 south of Rice Lane, 60 acres will be converted to commercial and industrial development, and a portion of this site has already been regraded. Outside of the study area to the east of US 85, development of residential and commercial property is continuing. As development occurs native vegetation is replaced with parking lots, streets, buildings and non-native vegetation. Conversion of nearby grassland to urban uses would increasingly confine wildlife to open spaces such as Fountain Creek Regional Park, and would tend to further restrict wildlife movement to riparian areas and drainages.

### Proposed Action

The Proposed Action would result in minor impacts (0.1 acre out of the 12-acre colony observed in 2006) to the prairie dog community northeast of the I-25 and SH 16 interchange, including removal of seven prairie dog burrows located in the I-25 right-of-way.

The Proposed Action has been designed to avoid or minimize impacts to wildlife and aquatic resources to the greatest extent practicable. The proposed improvements to SH 16 would likely disturb habitat within the home ranges of small terrestrial wildlife such

as mice, shrews, voles and some larger animals, including rabbits, raccoons, skunks and coyotes. Deer are common within the Fountain Creek floodplain and the adjacent riparian forest. They frequently move along the creek and cross under the SH 16 bridge that is more than 40 feet above the creek.

There could be an increase in mortality for wildlife species that use habitats impacted by construction vehicle access or increased vehicle traffic. However, while individual mortality could occur, increased mortality would represent a negligible adverse effect to wildlife species' populations throughout the study area. Due to the minor impacts expected from project activity, no long term effects to wildlife travel corridors are expected. Since the project area is located so close to Fountain Creek Regional Park, which provides a variety of essential habitats, reductions in existing vegetation within the project area will not reduce the habitat value for migrant birds or other species reliant on the area. Removal of vegetation that currently provides shading for Fountain Creek would be offset by the widening of the SH 16 Fountain Creek bridge. As a result water temperature in Fountain Creek would not be expected to increase. The amount of daily traffic on SH 16 will increase 50 percent by 2030, thus increasing the amount of vehicle-generated water pollutants. Because stormwater quality basins and similar facilities would be designed to capture 100% of stormwater runoff from the highway's impervious surface, indirect impacts to aquatic species and amphibians, such as increased pollutant concentrations and water temperature, would not be anticipated.

The existing I-25 and SH 16 corridors serve as a physical barrier for larger wildlife (such as coyote, deer and pronghorn) in the area. Therefore the reconstruction of the SH 16 alignment, SH 16/I-25 Interchange and SH 16/US 85 Interchange would not create additional obstructions for wildlife. An increase in the size of the road and the number and speed of the traffic will increase the barrier effect to wildlife.

No direct impacts to raptor nests would be anticipated to result from the Proposed Action because nests were observed outside the recommended CDOW buffer zone.

Indirect impacts to raptors include the removal of 7 to 10 large plains cottonwood (*Populus deltoides*) trees (estimated diameter at breast height between 8 and 14 inches) for bridge realignment and widening adjacent to Fountain Creek. Additional indirect impacts due to noise from construction could impact nesting raptors by disrupting nesting activities and potentially frightening off prey.

Songbirds typically rebuild their nests in different locations each year. Therefore, if songbird nests are inactive at the onset of construction, impacts would not be anticipated. 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. The amount of daily traffic on SH 16 will increase 50 percent by 2030, thus increasing the amount of vehicle-generated water pollutants. Because stormwater quality basins and similar facilities would be designed to capture 100% of stormwater runoff from the highway's impervious surface, indirect impacts, such as increased pollutant concentrations and water temperature, would not be anticipated.

## MITIGATION

The following mitigation measures to offset and minimize adverse effects on wildlife and aquatic resources will be implemented as part of the project:

- ▶ Minimize disturbance to native plant communities through avoidance and minimization measures.
- ▶ Additional surveys may be required prior to any construction activities to positively identify raptor species in the area. Construction restrictions will be made based on identified species presence. Based on CDOW guidelines, buffer distance to raptor nests and seasonal restriction differ slightly per species. For red-tailed hawk construction activities are restricted within 0.33 mile of an active nest from March 1 to July 15th; Swainson's hawk requires a 0.25 mile buffer around an active nest from April 1 to July 15th. 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.
- ▶ In accordance with the Migratory Bird Treaty Act of 1918 as amended, and the April 15, 2003 Migratory Bird Permit Memorandum, clearing and grubbing will occur outside of the breeding season (April 1 - August 31) to protect nesting birds or a depredation permit from USFWS will be obtained. If construction is to commence between April 1 and August 31, a ground nesting survey will be completed by a wildlife biologist. If an active nest is found during the survey then a 50-foot no-disturbance buffer will be placed around the nest site and activities within that buffer will be halted until the nest is abandoned or becomes inactive. If disturbance

to a nesting area is unavoidable, then a depredation permit from USFWS may be necessary.

- ▶ Based on the USFWS Migratory Bird Permit Memorandum (MBPM-2, 2003) a permit is not needed for the knocking down/destruction of an inactive migratory bird nest that is not containing any birds or eggs, provided that a nest does not belong to raptor or eagle species and no possession occurs. A photographic and written account of nest inactivity will be recorded prior to the destruction of any inactive nest to assist in preventing the risk and liability of legal prosecution. Additionally, special consideration will be taken prior to the destruction of any nest belonging to a colonial or ground nesting species as detecting presence of juveniles or individuals in these areas is difficult and may not be apparent during an initial survey. Nest surveys shall occur no more than 1 week prior to construction.
- ▶ Best Management Practices listed in the *SH 16 Technical Report for Water Resources* will be used to minimize the impact of sediment into Fountain Creek during construction.
- ▶ An Integrated Weed Management Plan will be developed prior to project construction. The plan will include identification and mapping of existing noxious weeds; potential impacts from spread of invasive species into adjacent properties, wetland, riparian or other sensitive habitats; and prevention and control measures. Appropriate weed management measures will be implemented both during and after construction.
- ▶ Stormwater quality basins and similar facilities would be designed to capture 100% of stormwater runoff from the highway's impervious surface.

The study area is within the CDOW recommended buffer zones for the identified raptor nests. The following mitigation measures are proposed to limit impacts to raptors:

- ▶ Retention of large trees, where possible, which currently serve as or have the potential to serve as raptor nesting or perching habitat. These trees will be protected with orange plastic fencing during construction. Prior to construction, a survey of large trees will be conducted to identify nest trees and perch trees. 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. The two raptor nests

identified in the study area are outside the limits of construction. Direct impacts are not anticipated.

- ▶ Avoid construction within 0.33 mile of the red-tailed hawk nests between April 1 and August 31 or until any nestlings have fledged. If construction is to commence between April 1 and August 31, a nesting survey will be completed by a wildlife biologist. If an active nest is found during the survey then a 50-foot no-disturbance buffer will be placed around the nest site and activities within that buffer will be halted until the nest is abandoned or becomes inactive. If disturbance to a nesting area is unavoidable, then a depredation permit from USFWS may be necessary.

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. Two target species listed in the SGPI, northern leopard frog and flathead chub (both state species of special concern), potentially occur in Fountain Creek within project boundaries. Both of these species will require on-site mitigation under the SGPI in the form of best management practices (BMP) including:

#### **Northern leopard frog**

- ▶ Pesticide application near permanent bodies of water will be restricted during the period of frog metamorphosis (June-August).
- ▶ Disruptions to areas containing frog habitat are to be avoided from March 1 – July 31; if this work during this timeframe cannot be avoided then the CDOT biologist and FWS should be consulted to determine actions necessary to minimize impact.

#### **Flathead chub**

- ▶ 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 or chemicals in the vicinity of state waters.

CDOT guidelines contained in the June 2005 *Impacted Black-tailed Prairie Policy* will be followed for this project. The State of Colorado has entered into a Memorandum of Understanding with ten other state and federal agencies for the conservation of black-tailed prairie dogs. In the January 2002 Memorandum "Black-tailed Prairie Dog Relocation Guidelines," CDOT created guidelines for addressing black-tailed prairie dogs affected by department projects and stated the importance of adopting a statewide strategy for prairie dogs. In June 2005, CDOT developed a policy entitled *Impacted Black-tailed Prairie Policy*, which establishes guidelines for addressing impacts to black-tailed prairie dogs affected by department projects. To mitigate impacts to black-tailed prairie dogs, CDOT guidelines contained in these policies will be followed for this project. The policy includes the following:

- ▶ CDOT projects will be designed and constructed to avoid and minimize impacts to prairie dog colonies greater than two acres in area;
- ▶ If a colony is less than two acres, but has the potential to expand into areas that are currently inactive (i.e., not constrained), the available and accessible habitat will be the determining size of the area to be considered;
- ▶ Projects involving towns less than two acres in area, will be designed and constructed to avoid and minimize impacts, which may include the relocation of prairie dogs, so long as doing so will not increase the impacts to other resources (e.g.

wetlands, historical properties, environmental justice issues, archeological sites, etc.) and is not cost prohibitive;

- ▶ The area of prairie dog towns that will be affected by a project will be calculated before construction begins;
- ▶ Relocation efforts for prairie dog towns greater than two acres shall be conducted in accordance with CRS 35-7-203, as well as any other applicable laws or regulations;
- ▶ If a relocation site cannot be located for towns larger than two acres, the prairie dogs will be captured and donated to raptor rehabilitation facilities, or turned over the FWS for the black-footed ferret reintroduction program;
- ▶ At no time will CDOT authorize earth-moving activities that result in the burying of living prairie dogs. If needed, humane techniques for the killing of prairie dogs within a town less than two acres in size, will be obtained from CDOW;
- ▶ Coordination with the Colorado Division of Wildlife's applicable District Wildlife Manager will be initiated before any manipulation of prairie dogs or their colonies begins;
- ▶ Due to the possibility of disease vectoring (prairie dogs in El Paso County sometimes carry plague), coordination with the Food and Drug Administration will be initiated if any prairie dogs, dead or alive, are to be transported.

Colorado law (CRS 33-5-101, commonly referred to as Senate Bill 40) requires a state agency to obtain certification from the Colorado Division of Wildlife (CDOW) when the agency plans construction in any stream, its banks, or tributaries. SB 40 certification for the Fountain Creek crossing will be obtained through the CDOW.

J:\\_Transportation\070672.400\SH 16 Environmental Assessment\manage\report\EA\_CD\Supporting Docs\12\_WILDLIFE\_AQUATIC.doc