

## 3.12 FISH AND WILDLIFE HABITAT

This section describes existing fish and wildlife species within the study area, their associated habitat, and impacts to these species and habitat as a result of the Build Alternatives. Fish and wildlife species that are recognized as threatened or endangered pursuant to the federal Endangered Species Act (ESA) are discussed separately in **Section 3.13 Sensitive Species**.

### 3.12.1 Fish and Wildlife Laws and Regulations

In Colorado, wildlife is protected under Colorado Senate Bill (SB) 40 Wildlife Certification (33-5-101-107, Colorado Revised Statute [CRS] 1973). Additionally, CRS 33-5-102 sets forth legislation protecting fishing streams from agency actions. The Colorado Division of Wildlife (CDOW) administers SB 40, and a permit is required whenever construction would affect any stream, river, lake, or riparian habitat and the wildlife habitat those areas provide. To comply with SB 40, a transportation project must demonstrate that measures have been taken to lessen or avoid impacts to protected waters and riparian habitat. The Arkansas River, Fountain Creek, and adjacent wetland and riparian habitats are located within the project corridor and may be impacted by the New Pueblo Freeway project.

Migratory birds, such as ducks and geese, are protected under the federal Migratory Bird Treaty Act (MBTA) (16 USC 703-712), which provides full federal protection of migratory birds. A migratory bird is any species or family of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle. The take (capture or kill) of a migratory bird, including disturbance of eggs or nests, is a violation of the MBTA. The New Pueblo Freeway project would cross habitat that may be used by migratory birds.

### 3.12.2 Affected Environment

The settlement of the City of Pueblo and the original construction of I-25 significantly reduced the amount of available wildlife habitat in the study area. As the area has been urbanized, a predominant lack of vegetation exists in areas outside of the Fountain Creek Park Land and Arkansas River Corridor; the urban habitats are low quality and inhabited predominantly by the common urban wildlife species listed in **Exhibit 3.12-1**.

Wildlife surveys were conducted for this project in 2003, and updated surveys will be completed prior to construction, including surveys of prairie dogs and Burrowing Owls. The study area did not extend east of the railroad tracks in most areas because project impacts would not occur in this area. Emphasis was placed on the following wetlands and wildlife habitat areas because these are the main sizable, non-urban habitats in the study area:

- ❖ A wetlands area (stormwater pond) located adjacent to the existing Pueblo Boulevard exit.
- ❖ The unnamed drainage located between the existing I-25 (and parallel railroad tracks) on the west, Santa Fe Avenue on the east, Mesa Avenue on the south, and the Arkansas River on the north.
- ❖ The Arkansas River crossing area.
- ❖ Fountain Creek.
- ❖ The Arkansas River Riverwalk Bypass channel located north of Ilex Street.

The developed areas adjacent to I-25 consist of commercial, industrial, recreational, and residential land uses. The vast majority of wildlife habitat in the study area is located in the North Area and Central Area along the Arkansas River and Fountain Creek, and comprises open water, riparian areas, wetlands, and wooded uplands. **Exhibit 3.12-2** details the acres of wildlife habitat in the study area.

The Arkansas River is an important east-west movement corridor for birds, mammals, fish, and reptiles. Fountain Creek is an important north-south riparian corridor that serves as a movement corridor for mammals and breeding habitat for raptors and small fish. Both the Arkansas River and Fountain Creek corridors provide fish and wildlife habitat for feeding, breeding, cover, and movement.

Further details on wildlife in the project area may be found in the *Fish and Wildlife Habitat Technical Memorandum, New Pueblo Freeway* (CH2M HILL, 2010d).

**EXHIBIT 3.12-1**

## Observed Wildlife in the Study Area

Species	Habitat Type	Characteristics
<b>OBSERVED DURING FIELD SURVEYS</b>		
mule deer ( <i>Odocoileus hemionus</i> )	Widely distributed	Mammal, Urban Tolerant
white-tailed deer ( <i>Odocoileus virginianus</i> )	Widely distributed	Mammal, Urban Tolerant
striped skunk ( <i>Mephitis mephitis</i> )	Widely distributed	Mammal, Urban Tolerant
raccoon ( <i>Procyon lotor</i> )	Widely distributed	Mammal, Urban Tolerant
red fox ( <i>Vulpes velox</i> )	Open areas	Mammal, Urban Tolerance
Common Crow ( <i>Corvus brachyrhynchos</i> )	Open areas	Migratory Bird, Urban Tolerant
Black-billed Magpie ( <i>Pica pica</i> )	Open areas	Migratory Bird, Urban Tolerant
Blue Jay ( <i>Cyanocitta cristata</i> )	Wooded and open areas	Migratory Bird, Urban Tolerant
Northern Flicker ( <i>Colaptes auratus</i> )	Wooded, and open areas	Migratory Bird, Urban Tolerant
desert cottontail ( <i>Sylvilagus audubonii</i> )	Wooded, and open areas	Mammal, Urban Tolerant
fox squirrel ( <i>Sciurus niger</i> )	Wooded areas	Mammal, Urban Tolerant
Killdeer ( <i>Charadrius vociferus</i> )	Open areas	Migratory Bird
Blue-winged Teal ( <i>Anas discors</i> )	Aquatic areas	Migratory Bird
Great Blue Heron ( <i>Ardea herodias</i> )	Aquatic areas	Migratory Bird
Cattle Egret ( <i>Bubulcus ibis</i> )	Aquatic areas	Migratory Bird, Urban Tolerant
Black Duck ( <i>Anas rubripes</i> )	Aquatic areas	Migratory Bird
Belted Kingfisher ( <i>Ceryle alcyon</i> )	Aquatic areas	Migratory Bird
Spotted Sandpiper ( <i>Actitis macularia</i> )	Aquatic and open areas	Migratory bird
Mallard Duck( <i>Anas platyrhynchos</i> )	Wetlands	Migratory Bird
<b>LIKELY TO BE PRESENT</b>		
gray fox ( <i>Urocyon cinereoargenteus</i> )	Widely distributed	Mammal, Federal Species of Concern
coyote ( <i>Canis latrans</i> )	Widely distributed	Mammal, Urban Tolerant
Great Horned Owl ( <i>Bubo virginianus</i> )	Wooded and open areas	Migratory Bird
Swainson's Hawk ( <i>Buteo swainsoni</i> )	Open areas	Migratory Bird
Red Tailed Hawk ( <i>Buteo jamaicensis</i> )	Open areas	Migratory Bird, Urban Tolerant
deer mouse ( <i>Peromyscus maniculatus</i> )	Widely distributed	Mammal
white-footed mouse ( <i>Peromyscus leucopus</i> )	Wooded areas	Mammal
Muskrat ( <i>Ondatra zibethicus</i> )	Aquatic areas	Mammal
mink ( <i>Mustela vison</i> )	Aquatic areas	Mammal
long-tailed weasel ( <i>Mustela frenata</i> )	Widely distributed	Mammal
little brown bat ( <i>Myotis lucifugus</i> )	Aquatic areas	Mammal

**EXHIBIT 3.12-1**

## Observed Wildlife in the Study Area

Species	Habitat Type	Characteristics
Song Sparrow ( <i>Melospiza melodia</i> )	Open areas	Bird
plains leopard frog ( <i>Rana blairi</i> )	Aquatic areas	Amphibian
western chorus frog ( <i>Pseudacris triseriata</i> )	Aquatic areas	Amphibian
western terrestrial garter snake ( <i>Thamnophis elegans</i> )	Open areas	Reptile
bluegill ( <i>Lepomis macrochirus</i> )	Aquatic areas	Fish
channel catfish ( <i>Ictalurus punctatus</i> )	Aquatic areas	Fish
common carp ( <i>Cyprinus carpio</i> )	Aquatic areas	Fish
fathead minnow ( <i>Pimephales promelas</i> )	Aquatic areas	Fish
gizzard shad ( <i>Dorosoma cepedianum</i> )	Aquatic areas	Fish

Source: U.S. Fish and Wildlife Service, 2010a; U.S. Fish and Wildlife Service. 2010b.

**3.12.3 Environmental Consequences**

Impacts to fish and wildlife are closely linked to impacts to the habitat they require. When analyzing the impacts to fish and wildlife, it must be determined whether actual habitat would need to be acquired for the project and whether the project would create any problems, such as a barrier along a migration route or a forced change in migration patterns. Impacts to wildlife may occur due to habitat fragmentation, disturbance of spawning beds used by aquatic species, or removal of woodlands used by birds and mammals for both nesting and foraging.

Wildlife using the Arkansas River and Fountain Creek corridors may be affected by encroachment of the highway improvements and associated construction activities, but the disturbance would be minimal and would not change the routes of migratory birds or prevent the movement of the animals using these areas. Impacts may include the loss or fragmentation of nesting habitat, increased avoidance of the project area, and increased vehicle collision mortality. The

following sections discuss the potential impacts of each alternative in detail.

**3.12.3.1 No Action Alternative**

Under the No Action Alternative, the current I-25 would not be improved and no permanent or temporary impacts to wildlife would occur; therefore, wildlife within the study area would continue to inhabit the existing habitats along the Fountain Creek and Arkansas River.

**3.12.3.2 Build Alternatives****North Area**

Impacts to wildlife within the North Area under both Build Alternatives would include the loss of wetland and riparian habitat along the west side of Fountain Creek due to the extension of Dillon Drive north of US 50B and the construction activities associated with the extension. The widening of the existing 8th Street bridge over Fountain Creek would require construction of additional bridge piers that would result in a permanent loss of habitat. A total of

**EXHIBIT 3.12-2**

## Total Wildlife Habitat in the Study Area (acres)

	Aquatic Areas			Wooded Uplands	Total
	Open Water	Riparian	Wetlands		
Habitat within Study Area	10.22	39.45	9.62	15.51	75

Source: CH2M HILL, 2005d.

0.13 acre of wetlands and 4.91 acres of riparian habitat would be impacted by the project in these two locations.

The impacted wetland and riparian areas, shown in **Exhibit 3.12-3**, represent only a small portion of the total wetland and riparian habitat located along Fountain Creek and would not impede wildlife movement along the corridor. Although construction activities would result in some loss of nesting habitat for migratory birds and other wildlife using the impacted wetland and riparian areas, these areas are relatively low quality when compared to habitat found in less disturbed areas. This area is considered low quality due to prior disturbances and the invasion of the noxious weed tamarisk (tamarisk is discussed further in **Section 3.18 Noxious Weeds**). Because tamarisk is a heavy consumer of water and spreads rapidly in disturbed areas, it would directly compete with native species found in the area that provide better habitat and food for wildlife.

#### **South Area**

Both the Existing I-25 Alternative and the Modified I-25 Alternative would impact approximately 0.02 acre of wetland habitat in the South Area. The impacts would result from the placement of a box culvert in the wetland channel located southeast of the Pueblo Boulevard interchange, as shown in **Exhibit 3.12-4**. The impacted wetland area represents only a small reduction in the overall wetland size, and the majority of the wetland would remain intact and useable by wildlife. Bessemer Ditch is a concrete-lined channel in the study area that is subject to seasonal fluctuations in flows due to irrigation demands and therefore does not provide suitable habitat.

#### **Central Area**

##### *Existing I-25 Alternative*

Impacts to habitat caused by the Existing I-25 Alternative are shown in **Exhibit 3.12-5**.

The Existing I-25 Alternative would involve construction of a single new bridge to replace the two existing bridges for I-25 to cross the Arkansas River, as well as the widening of the existing Santa Fe Bridge. The new bridge piers would encroach on approximately 0.01 acre of open water in the river. This would be a "transverse encroachment," meaning that the encroachment is perpendicular to the flow of the stream. The new piers would be similar in size to the piers

that currently support the highway. Therefore, the impact would be expected to be negligible because the new piers would not alter the river's surface flows, as modeled in the *Floodplain Technical Memorandum, New Pueblo Freeway* (CH2M HILL, 2005f), restrict the passage of fish upstream or downstream, or present a new obstacle for recreational users.

Both the wetland and the wooded upland located east of I-25 and south of the Arkansas River would be impacted under the Existing I-25 Alternative. Although only 0.07 acre of the wetland and 3.81 acres of the wooded upland would be impacted due to construction activities resulting from right-of-way (ROW) encroachment, these areas would be divided in half to accommodate the extension of Abriendo Avenue.

##### *Modified I-25 Alternative*

Impacts to habitat caused by the Modified I-25 Alternative are shown in **Exhibit 3.12-6**. The Modified I-25 Alternative would impact 0.08 acre of open water, 2.54 acres of riparian habitat, 0.93 acre of wetlands, and 9.49 acres of wooded upland habitat.

A total of 0.08 acre of open water habitat would be lost due to the placement of 18 new bridge piers in the Arkansas River streambed that would carry the new I-25 alignment and the two additional ramps. The existing piers carrying I-25 would remain within the Arkansas River to carry the repurposed Santa Fe Avenue. The old Santa Fe/US 50B Bridge over the Arkansas River would be removed, which would remove one existing pier from the Arkansas River. Similar to the Existing I-25 Alternative, the additional bridge piers would not substantially alter surface flows or restrict the passage of fish upstream or downstream (CH2M HILL, 2005f). As a result, the impacts to fish species are expected to be minimal.

The riparian area adjacent to the south bank of the Arkansas River would be impacted due to construction activities resulting from ROW encroachment. The impacts would not prevent the movement of wildlife but would result in the permanent loss of nesting habitat for migratory birds, as well as cover and feeding habitat for other wildlife species commonly found in riparian areas.

**EXHIBIT 3.12-3**  
**North Area Build Alternative Habitats**

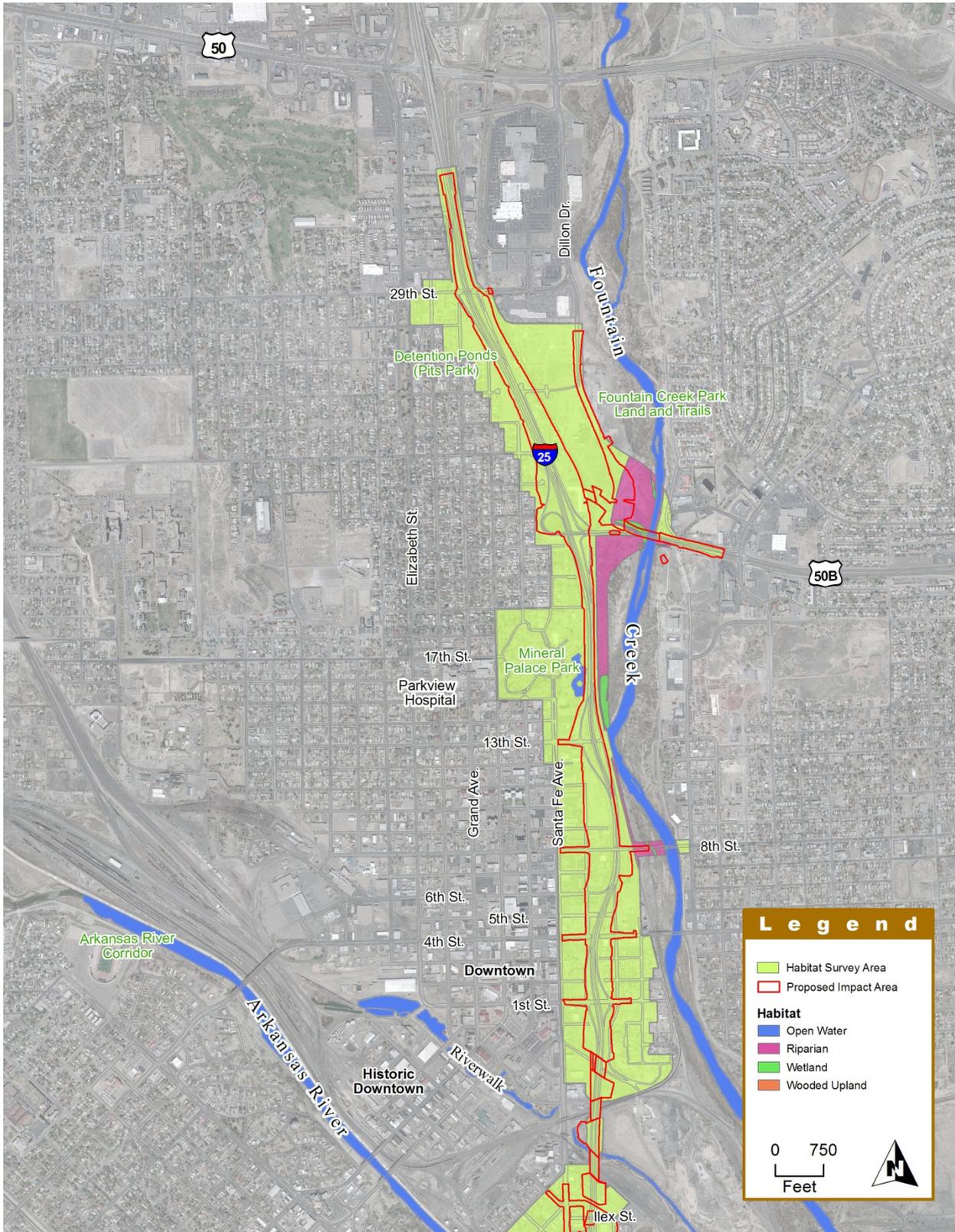


EXHIBIT 3.12-4  
South Area Build Alternative Habitats



**EXHIBIT 3.12-5**  
**Central Area Habitats – Existing I-25 Alternative**

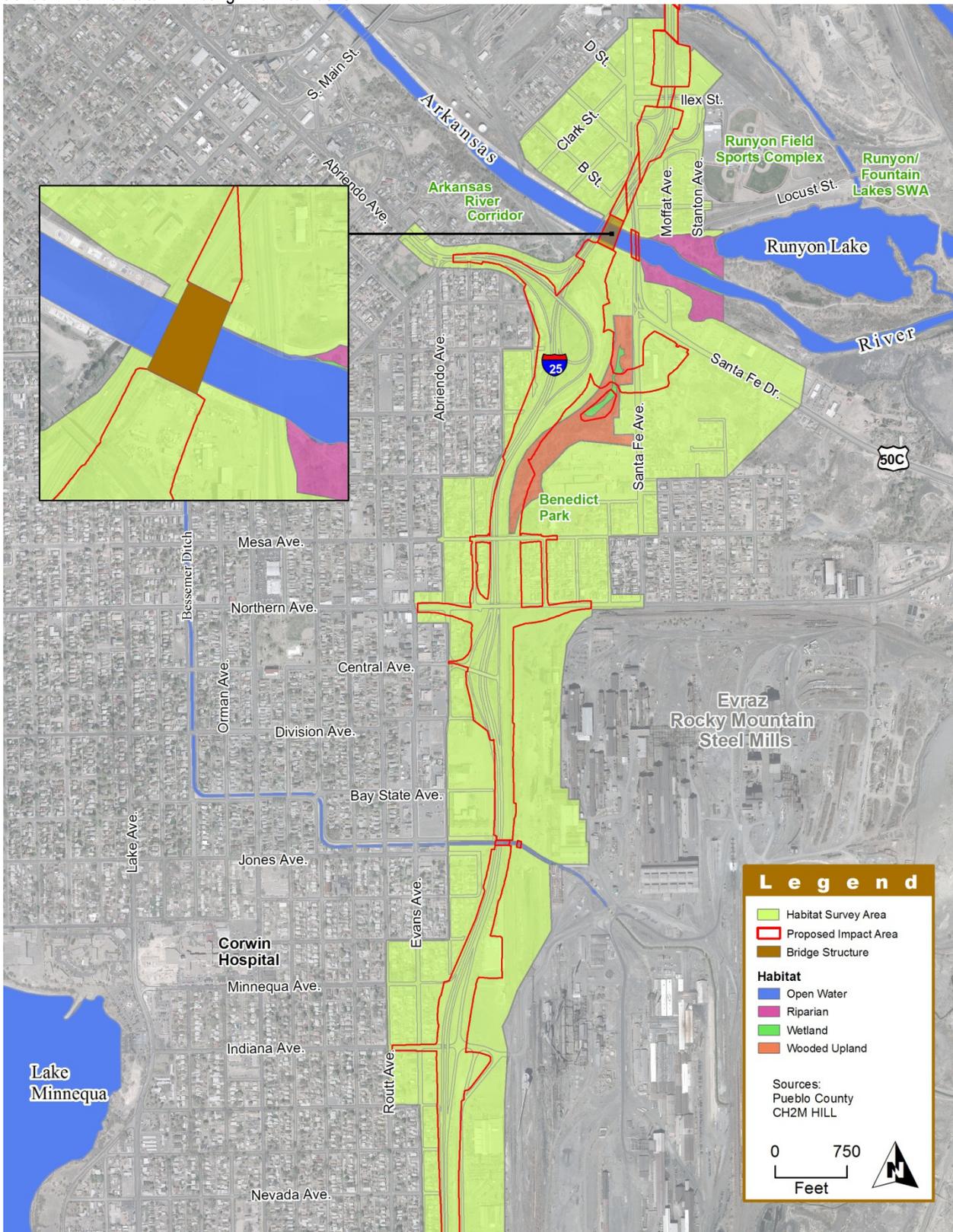
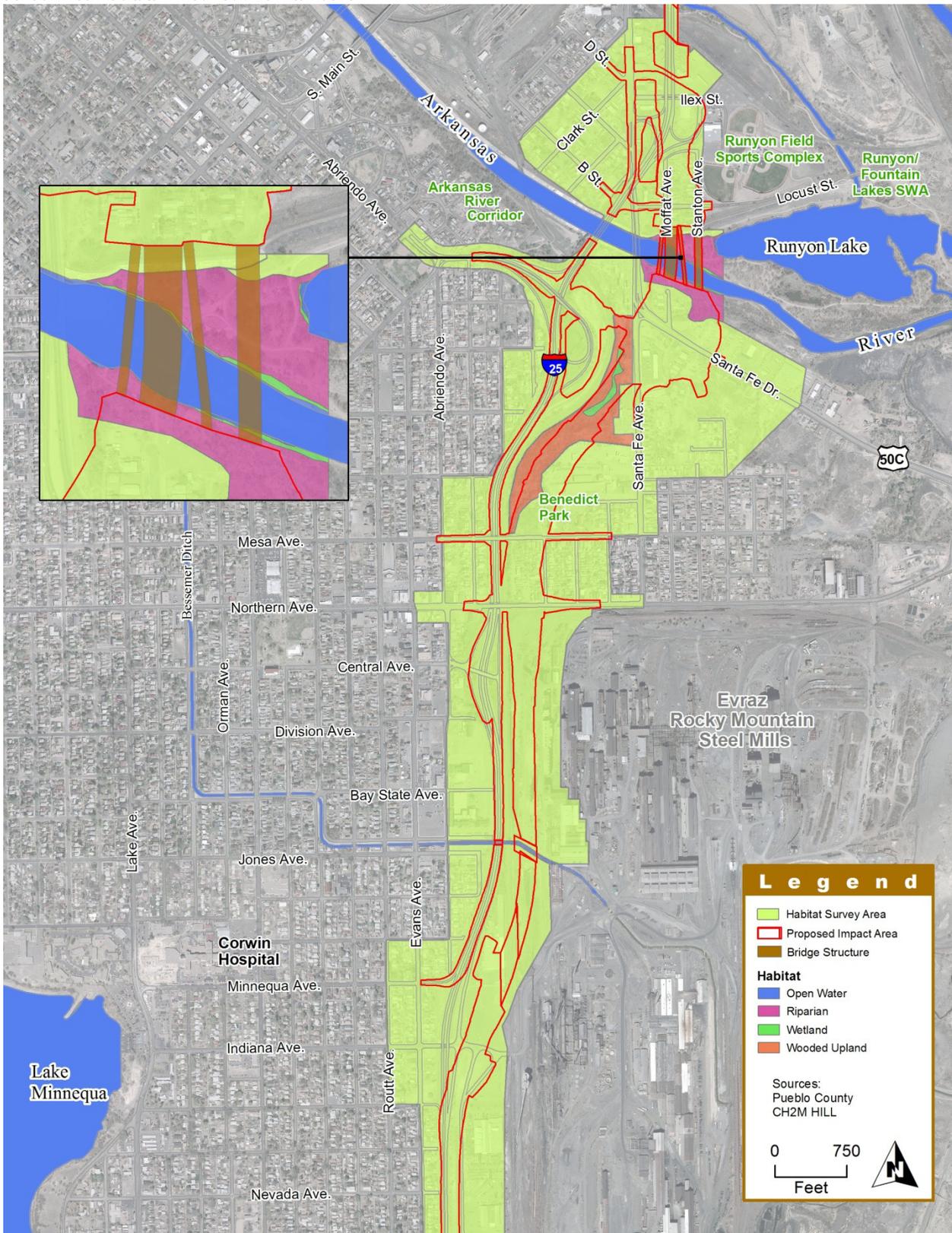


EXHIBIT 3.12-6  
Central Area Habitats – Modified I-25 Alternative



The Modified I-25 Alternative would reduce the size of the wooded upland area located south of the Arkansas River and east of I-25 by more than half due to roadway encroachment, and the remaining habitat would be fragmented. Although approximately 40 percent of the wooded area would remain, the alignment would divide the remaining area into three individual tracts. The Modified I-25 Alternative would almost entirely remove the wetland located within the wooded upland area. It is anticipated that the loss of wooded upland and wetland habitat would result in a loss of wildlife species in this area.

### 3.12.4 Mitigation

Unless otherwise specified, the following mitigations apply to both the Existing I-25 Alternative and the Modified I-25 Alternative.

CDOT will mitigate to offset impacts to wildlife habitat resources within the study area. Although avoidance and minimization techniques were used to the extent feasible during the design process to limit or reduce impacts to area wildlife habitat, minor impacts are still expected to occur. Additional wildlife surveys will be conducted prior to final design and construction to identify additional opportunities to avoid and minimize impacts to fish and wildlife. Specific mitigation actions that CDOT will implement include the following:

- ❖ Best management practices (BMPs) will be adopted to minimize construction impacts on wildlife and habitat resources within the study area. Management techniques include limiting sedimentation and erosion into area receiving waters, including open water areas, wetlands, and adjacent riparian areas; stabilizing disturbed areas by quickly revegetating stripped areas with approved erosion control seed mixes; and clearly marking construction boundaries to prevent equipment or other intrusion into habitat located outside the construction zone.
- ❖ Habitat replacement, restoration, or enhancement will be conducted to mitigate for impacts that could not be avoided, including impacts to the wetland and riparian areas along Fountain Creek and adjacent to the Arkansas River. Examples of habitat restoration and enhancement include planting of native species beneficial to wildlife and removal and management of noxious weeds.
- ❖ Under the MBTA, construction activities that would otherwise result in the take of migratory birds, eggs, young, and/or active nests should be avoided during the nesting season. Most migratory bird nesting activity in eastern Colorado occurs each year between April 1 and August 31.
- ❖ If construction is planned during nesting season, nest surveys will be conducted by a qualified biologist prior to construction to determine the absence or presence of nesting migratory birds. Any unoccupied nests will be removed by CDOT in advance of construction. If an active nest is located within the limits of construction, construction will be suspended and the U.S. Fish and Wildlife Service will be contacted to develop a plan of action. Raptor nest surveys will be conducted during the appropriate nesting season (generally February 1 through July 31) to evaluate the presence of active raptor nests. Seasonal buffer zones or monitoring may be established around active nests during construction to avoid disturbance while nesting, if deemed necessary.
- ❖ To avoid disturbance of active bird nests, trees, grasses, and shrubs located within the limits of construction will not be removed during nesting season (between April 1 and August 31). Individual trees important for raptor perching that are to be removed in the ROW will be replaced at a 1:1 ratio or as specified by state and federal wildlife agencies to ensure raptor perch trees are replaced for future use. New trees may be planted near areas that naturally receive adequate water, such as near drainage areas or wetlands, or as determined by CDOT to ensure survival (if irrigation is available, that would be sufficient as well). Artificial perches may be temporarily erected where important large perch trees are removed to provide perches until newly planted trees have matured.
- ❖ CDOT may be required to obtain an SB 40 permit from CDOW. Following final design, an application for SB 40 Wildlife Certification may be required if the project does not fall within CDOT's Programmatic Agreement with CDOW, including detailed plans and specifications. Plans will be reviewed by CDOW to make sure that they are technically adequate to protect and preserve fish and wildlife species and provide recommendations or alternative plans if the project would adversely affect a riparian area along the Arkansas River or Fountain Creek.

- ❖ A concrete truck washout area will be constructed at the project site with the following specifications:
  - Suitable locations within the CDOT ROW will be set aside for the washout area.
  - A pit with sufficient capacity to hold all anticipated wastewaters will be constructed at least 50 feet away from any state waters; the bottom of the pit will be at least 5 feet higher than groundwater.
  - The area will be signed as a concrete wash water clean-out area, and the access road leading to a paved road or highway will have a stabilized construction entrance in accordance with appropriate CDOT specifications.
- ❖ No fertilizer, hydrofertilizer, or hydromulching will be allowed adjacent to any stream or wetland.
- ❖ Please refer to **Section 3.18 Noxious Weeds** for detailed information on weed control mitigation measures.
- ❖ Please refer to **Section 3.7 Wetlands** for detailed information on wetland mitigation measures.