



*Final
Wildlife and Wildlife Habitat –
Baseline Conditions Report*

*U.S. 24 West Corridor
El Paso County, Colorado*

SAIC Project No. 01-0203-00-8932-xxx

Prepared for:



19 South Tejon Street, Suite 500
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May 30, 2006

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ACRONYMS AND ABBREVIATIONS

AMSL	above mean sea level
BCR	Baseline Conditions Report
CDOW	Colorado Division of Wildlife
CNHP	Colorado Natural Heritage Program
DAU	Data Analysis Unit
NDIS	Natural Diversity Information Source
ROW	right-of-way
SAIC	Science Applications International Corporation
SOW	Scope of Work
U.S. 24	U.S. Highway 24

Final Wildlife and Wildlife Habitat – Baseline Conditions Report
U.S. Highway 24 West Environmental Assessment
El Paso County, Colorado

INTRODUCTION

As part of the U.S. Highway 24 (U.S. 24) Environmental Assessment (EA) in El Paso County, Colorado, Science Applications International Corporation (SAIC) was contracted to conduct surveys and describe baseline conditions for biological resources. As documented in the revised Scope of Work (SOW) dated September 1, 2005, the study area is a 4.5 mile long corridor along Fountain Creek beginning at Interstate 25 in Colorado Springs and ending approximately 400 feet west of where Fountain Creek crosses under U.S. 24, west of Manitou Avenue. This Baseline Conditions Report (BCR) evaluates the wildlife habitat associated with Fountain Creek in the study area. SAIC conducted a site reconnaissance of the study area on foot and reviewed available ecological data as per the SOW. This BCR includes a description and evaluation of wildlife species and habitat within the study area that could be impacted by the project. This report does not address Threatened and Endangered species (see Threatened and Endangered Species – BCR).

SITE DESCRIPTION

The U.S. 24 corridor beginning at Interstate 25 in Colorado Springs and ending at the Manitou Avenue interchange in Manitou Springs, (Appendix A, Figure 1) is embedded within an urban landscape including strip malls, mobile home parks, motels, gas stations, vacant lots, and single family homes. U.S. 24 parallels Fountain Creek within the study area. Ownership of the area outside of the U.S. 24 right-of-way (ROW) is mostly private land.

The 27-square mile Fountain Creek Watershed drains into the Arkansas River at Pueblo, Colorado and encompasses the entire study area. The watershed is bordered by the Palmer Divide to the north, Pikes Peak to the west, and a minor divide 20 miles east of Colorado Springs. For the most part, the only wildlife habitat within the study area consists of the riparian vegetation of Fountain Creek or immediately adjacent upland habitat. The banks of Fountain Creek are armored with boulder or concrete riprap along much of its length (Appendix B, Photos 1 and 2). In other areas, banks are eroded (Appendix B, Photo 3). One reach of the Fountain Creek stream channel within the study area has been restored with armored banks (Appendix B, Photo 4).

The study area is within the Southern Rocky Mountain Steppe-Open Woodland-Coniferous Forest-Alpine Meadow Province (Bailey 1995) and ranges in elevation from approximately 5,920 feet above mean sea level (AMSL) to 8,160 feet AMSL. Forested habitat in the Fountain Creek riparian area consists largely of cottonwood (*Populus deltoides* ssp. *monilifera*, *P. angustifolia*, *P. x acuminata*), box-elder (*Acer negundo*), Siberian elm (*Ulmus pumila*), and green ash (*Fraxinus pennsylvanica*) with a shrub layer consisting of western snowberry (*Symphoricarpos occidentalis*), peachleaf willow (*Salix amygdaloides*), coyote willow (*S. exigua*), and chokecherry (*Prunus virginiana*). Where present, adjacent upland habitat areas includes ponderosa pine (*Pinus ponderosa*) woodland, sagebrush (*Artemisia* spp.) shrubland, bare soil, and mixed grass prairie.

METHODS

SAIC conducted a site reconnaissance of the study area on September 28, 2005 to identify and assess the general nature and extent of wildlife habitat, presence of wildlife or sign, and to familiarize SAIC staff with the study area. For the purposes of this study, the site reconnaissance was restricted to Fountain Creek, its riparian area, and immediately adjacent upland areas. SAIC conducted a pedestrian survey of the riparian habitat and adjacent areas of potential wildlife habitat along the length of Fountain Creek, from Interstate 25 to approximately 400 feet west of Manitou Avenue. The width of the corridor was defined as approximately 100 feet either side of Fountain Creek as measured from the ordinary high water mark. In addition, SAIC analyzed current CDOW Natural Diversity Information Source (NDIS) Species Distribution Maps (Colorado Division of Wildlife 2005) and reviewed current Colorado Natural Heritage Program's (CNHP) Biodiversity Tracking and Conservation System (BIOTICS) data for the study area.

FINDINGS

The following sections of this BCR include a description of findings from the site reconnaissance (i.e., dominant vegetation, wildlife habitat, and wildlife species detected or identified via tracks, scat, or other sign), analysis of CDOW and CNHP data, and literature review.

Vegetation

The study area is embedded within a highly disturbed urban landscape with a sparsity of native vegetation and undisturbed wildlife habitat (Appendix B, Photo 5). In some areas the Fountain Creek riparian area contains remnants of a cottonwood dominated riparian woodland; however, other areas are highly disturbed with sparse native understory vegetation (Appendix B, Photo 6) and non-native and weed infestations.

The lower portions of the study area (near Interstate 25) are dominated by a cottonwood plant community that can be described as a Plains Cottonwood - Peachleaf Willow / Coyote Willow Woodland (CNHP 2005; NatureServe 2005). This cottonwood - willow woodland is found widely in the central Great Plains of the United States (NatureServe 2005). Stands occur on recently deposited alluvial material along rivers and streams. The soils are derived from alluvial sand, silt, and clay and are poorly developed (NatureServe 2005). Plains cottonwood is the dominant species in this community, although coyote willow is generally more dominant in areas where succession has been set back by a major flood event or anthropogenic disturbance (Appendix B, Photo 7). Peachleaf willow is nearly co-dominant in the more mature areas. The shrub/sapling layer is conspicuous, especially near the streambank, and consists mainly of young coyote willow, plains cottonwood, and peachleaf willow with common chokecherry and western snowberry. Green ash and box-elder are common as sapling or sub-canopy trees. An occasional Rocky Mountain juniper (*Juniperus scopulorum*) occurs above the floodplain. Sideoats grama (*Bouteloua curtipedula*) and western wheatgrass (*Pascopyrum smithii*) are examples of the few persisting native grasses. Field horsetail (*Equisetum arvense*), mule's ear (*Wyethia amplexicaulis*), prairie sunflower (*Helianthus petiolaris*), western ragweed (*Ambrosia psilostachya*), and wild licorice (*Glycyrrhiza lepidota*) are common forbs.

Upstream, the plains cottonwood overstory of the forested reaches of the riparian area gradually gives way to a mix of plains and lanceleaf cottonwood then lanceleaf and narrowleaf

cottonwood, and finally narrowleaf cottonwood in the western portion of the study area (near Manitou Springs). Understory vegetation remains similar but green ash, common chokecherry, Rocky Mountain juniper, and western snowberry become increasingly more common (Appendix B, Photo 8). The dominant riparian community in this part of the study area could more accurately be described as transitioning to a cottonwood spp. / western snowberry woodland or a narrowleaf cottonwood / chokecherry woodland.

It is important to note that one of the most common trees in the subcanopy throughout the riparian area of Fountain Creek (and the dominant sub-canopy tree in many areas) within the study area is Siberian elm (*Ulmus pumila*). Although this non-native tree does not cause the ecological impact of Russian olive (*Elaeagnus angustifolia*) and tamarisk (*Tamarix* spp.), it appears to be out-competing native trees and shrubs within the study area thus reducing plant diversity of the habitat. Other non-native plant species common in the study area include: Canada thistle (*Cirsium arvense*), cheatgrass (*Bromus tectorum*), houndstongue (*Cynoglossum officinale*), kochia (*Kochia scoparia*), leafy spurge (*Euphorbia esula*), Russian olive (Appendix B, Photo 9), tamarisk (Appendix B, Photo 10), yellow salsify (*Tragopogon dubius*), and yellow toadflax (*Linaria vulgaris*) (Appendix B, Photo 11).

Wildlife

This analysis addresses significant, present wildlife use of the study area. The ‘significant’ wildlife use described herein refers to those wildlife species that are of ecological, economic, regulatory, social, and/or political importance. No special status wildlife species were observed during the site reconnaissance.

Typical of the Front Range urban corridor, the wildlife community in the study area has been influenced by human use and disturbance over the past 100 years. Although highly disturbed, the cottonwood riparian woodland communities along Fountain Creek provide limited habitat for wildlife. Large mammals commonly observed in the study area include mule deer (*Odocoileus hemionus*), and several small predators, including coyote (*Canis latrans*), raccoon (*Procyon lotor*), red fox (*Vulpes vulpes*), and striped skunk (*Mephitis mephitis*) also occur in the study area. A number of small mammal species likely occur in the study area. Bird diversity in the study area is typical of urban habitat and is supported by the existing vegetation.

Ungulates

Mule Deer (*Odocoileus hemionus*)

CDOW NDIS data indicate that the entire study area is within active mule deer summer and winter range and the portions of the study area west of the Fountain Creek - Camp Creek confluence and south of the study area is an active concentration area (Appendix A, Figure 2) (NatureServe 2005). The presence of mule deer tracks (Appendix B, Photo 12), scat piles (Appendix B, Photo 13), and antler rubs throughout the study area confirms that mule deer are present in the non-winter months. Browse on preferred forage plants was observed. Given the urban setting of the study area and the lack of extensive native shrubland habitat it is unlikely that the study area provides anything but marginal winter habitat and does not possess characteristics that are typical of high quality winter range and/or concentration areas in the southern part of the Front Range and foothills. Winter range is defined by the CDOW as “That part of the overall range where 90 percent of the individuals are located during the average five

winters out of ten from the first heavy snowfall to spring green-up, or during a site specific period of winter as defined for each Data Analysis Unit (DAU)” (CDOW 2005). Concentration area is defined as “That part of the overall range where higher quality habitat supports significantly higher densities than surrounding areas” (CDOW 2005a).

Although mule deer occur within the urbanized area throughout the year and some urban and suburban areas do indeed provide the forage and cover mule deer require in winter, most of the remaining habitat in the study area is degraded to a condition such that it cannot support large numbers of wintering mule deer. The two-needle piñon-juniper spp. (*Pinus edulis* – *Juniperus* spp.) woodland and Gambel oak (*Quercus gambelii*) dominated montane shrubland plant communities on the slopes and rough country west and south of the study area are more typical of winter range and concentration area habitat in this region of Colorado. No mule deer significant migration corridors were discovered within the study area during the site reconnaissance nor are they mapped by the CDOW. The CDOW scoping meeting identified areas around 31st Street and west of there as areas that potentially attract wildlife and where wildlife attempts to cross U.S. 24 (CH2M Hill 2005).

Rocky Mountain Bighorn Sheep (*Ovis canadensis*)

There is no mapped (CDOW 2005a) or field verified Rocky Mountain bighorn sheep habitat within or immediately adjacent to the study area.

Rocky Mountain Elk (*Cervus elaphus*)

There is no mapped (CDOW 2005) or field verified Rocky Mountain elk habitat within or immediately adjacent to the study area.

Black Bear and Predators

Black bears (*Ursus americanus*) can be found throughout the study area (Appendix A, Figure 3). Indeed, there is a history of human-bear conflict in the U.S. 24 corridor (CDOW 2005). The CDOW maps the area immediately southwest of the study area as black bear summer and winter concentration area (CDOW 2005). The portion of the study area west of the Fountain Creek - Camp Creek confluence is mapped as summer concentration area with only the westernmost portion of the study area in and around Manitou Springs mapped as winter concentration area (Appendix A, Figure 3). Although no bears or bear sign were observed during the site reconnaissance, it is likely that that the mapping is accurate given the habitat in the mapped areas and the propensity of black bears to seek human sources of supplemental nourishment in poor natural food years.

SAIC observed tracks of carnivores such as striped skunk, raccoon, and bobcat¹ (*Lynx rufus*; Appendix B, Photo 14) in the study area. Long-tailed weasel (*Mustela frenata*), mink (*M. vison*), and red fox are also likely present. The CDOW NDIS data indicate that mountain lions (*Puma concolor*) are known to occur within the study area (Appendix A, Figure 4). Given the plant communities and topography of the upland portions within and adjacent to the study area (particularly west of the Fountain Creek - Camp Creek confluence) it is likely that mountain lions are present during certain times of year.

¹ The tracks shown in Photo 14 could have been made by either a bobcat or large house cat.

Other Mammals and Bats

Small mammals typical of Front Range cottonwood riparian woodlands such as bushy-tailed woodrat (*Neotoma cinerea*), Colorado chipmunk (*Tamias quadrivittatus*), common muskrat (*Ondatra zibethicus*), deer mouse (*Peromyscus maniculatus*), desert cottontails (*Sylvilagus audubonii*), fox squirrel (*Sciurus niger*), golden-mantled ground squirrel (*Spermophilus lateralis*), meadow vole (*Microtus pennsylvanicus*), Mexican woodrat (*Neotoma mexicana*), and rock squirrel (*Spermophilus variegatus*) were observed or likely occur in the study area. No black-tailed prairie dog (*Cynomys ludovicianus*) colonies were observed within or immediately adjacent to the study area. Botta's pocket gophers (*Thomomys bottae*) may occur based upon habitat and geographic distribution (CDOW 2005). Three species of shrew – dwarf (*Sorex nanus*), masked (*S. cinereus*), and Merriam's (*S. merriami*) – likely occur within the study area.

The American beaver (*Castor canadensis*) may occur within the study area. Although SAIC observed no active lodges, drags, or scent piles, numerous willow and cottonwood cuttings were found throughout the study area. It should be noted that none of these cuttings were fresh, but many appeared to have been cut within the last few years.

There are nine bat species that may occur within the study area based upon habitat affinity and geographic distribution (CDOW 2005b; Fitzgerald et al. 1994): big brown bat (*Eptesicus fuscus*), fringed myotis (*Myotis thysanodes*), hoary bat (*Lasiurus cinereus*), little brown myotis (*M. lucifugus*), long-eared myotis (*M. evotis*), long-legged myotis (*M. volans*), pallid bat (*Antrozous pallidus*), silver-haired bat (*Lasionycteris noctivagans*), and Townsend's big-eared bat (*Plecotus townsendii*).

Birds

The study area provides habitat for an avian community typical of Front Range cottonwood riparian woodlands and urban habitats. Birds observed or likely to occur in the study area strongly associated with Front Range riparian habitat include killdeer (*Charadrius vociferous*), mallard (*Anas platyrhynchos*; Appendix B, Photo 15), song sparrow (*Melospiza melodia*), spotted sandpiper (*Actitis macularis*), yellow breasted chat (*Icteria virens*), and yellow warbler (*Dendroica petechia*). Front Range generalist species observed or likely to occur in the study area include black-capped chickadee (*Poecile atricapillus*), black-billed magpie (*Pica pica*), broad-tailed hummingbird (*Selasphorus platycercus*), northern flicker (*Colaptes auratus*), house wren (*Troglodytes aedon*), western kingbird (*Tyrannus verticalis*), and western wood pewee (*Contopus sordidulus*). Birds typical of urban settings including common grackle (*Quiscalus quiscula*), house sparrow (*Passer domesticus*), house finch (*Carpodacus mexicanus*), American robin (*Turdus migratorius*), European starling (*Sturnus vulgaris*), and rock pigeon (*Columba livia*) were observed or may occur in the study area (Andrews & Righter 1992; CDOW 2005b; Kingery 1998). In various portions of the study area different upland habitats influence the avian species composition. These habitats include piñon-juniper and ponderosa pine woodlands and mixed grass prairie.

SAIC did not observe any raptor nests during the site reconnaissance. The only raptor observed during the site reconnaissance was a single American kestrel (*Falco sparverius*). Given the habitat present within and adjacent to the study area, a number of other raptors are likely to occur including golden eagle (*Aquila chrysaetos*), red-tailed hawk (*Buteo jamaicensis*), and Swainson's hawk (*B. swainsoni*) (Andrews & Righter 1992; CDOW 2005b; Kingery 1998). Although no

owls or owl nests were observed it is likely that as many as five species may occur within or adjacent to the study area including: flammulated owl (*Otus flammeolus*), great-horned owl (*Bubo virginianus*), long-eared owl (*Asio otus*), northern pygmy owl (*Glaucidium gnoma*), and western screech owl (*O. kennicottii*) (Andrews & Righter 1992; CDOW 2005b; Kingery 1998). It is unlikely that any of the larger raptors nest within the study area. It is possible, that one or more of the smaller, cavity nesting birds of prey such as American kestrel nest within the study area.

No bald eagles (*Haliaeetus leucocephalus*) or bald eagle nests were observed during the site reconnaissance. The CDOW does not map any bald eagle habitat within or adjacent to the study area (CDOW 2005) and CNHP does not have any records of bald eagle nesting or roosting occurrences within the study area (CNHP 2005).

CONCLUSIONS

The study area is deficient of extensive undisturbed wildlife habitat. For the most part, wildlife observed or identified via scat, tracks or other sign are generalists (e.g., golden mantled ground squirrel) or very common specialists (e.g., yellow warbler). The study area is urbanized and remnant native plant communities are degraded with extensive infestations of non-native plant species. While the Fountain Creek corridor does provide a refuge of habitat within an urbanized landscape, its value to wildlife is limited and the native vertebrate diversity it supports is relatively low.

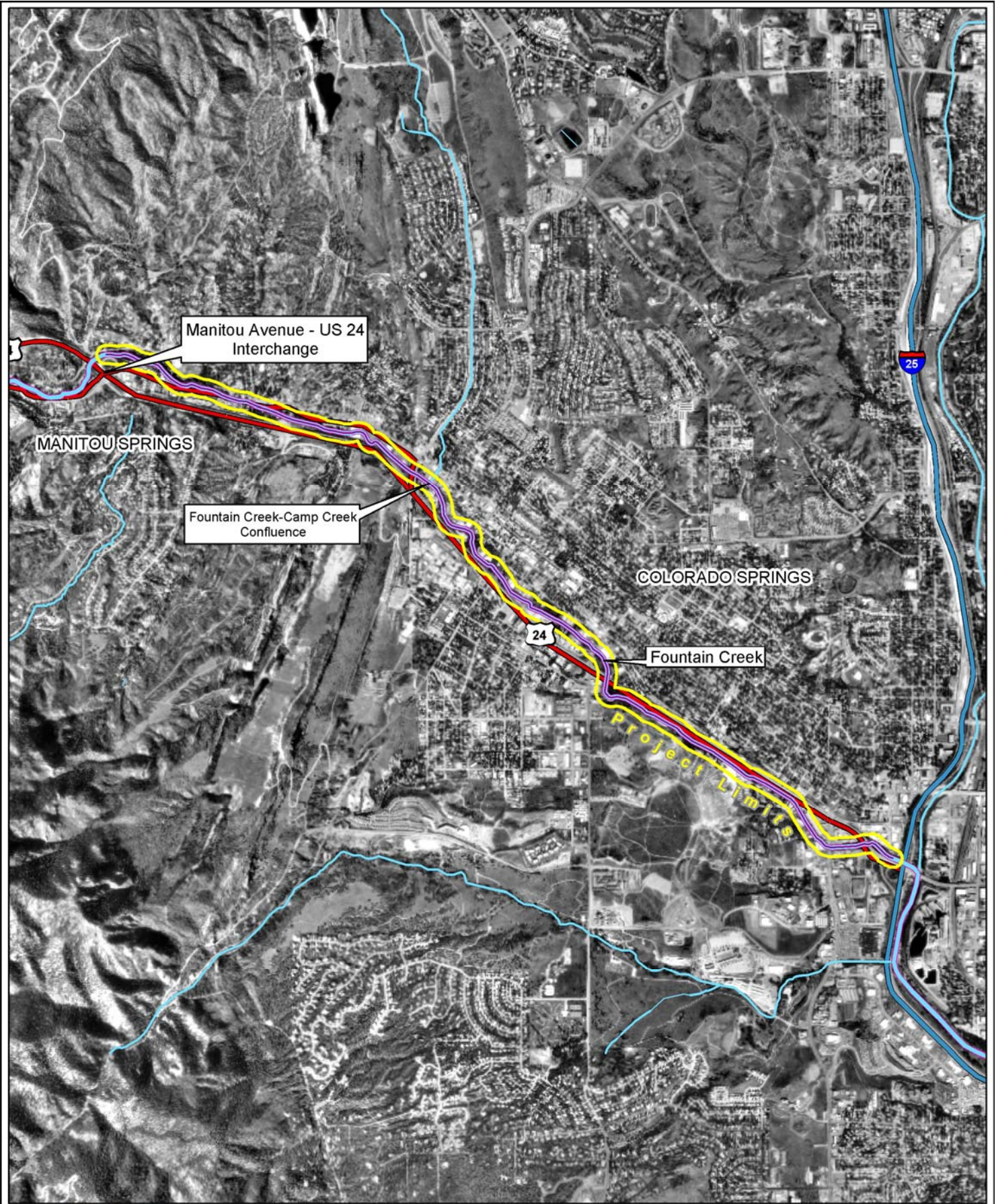
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U.S. 24 WEST CORRIDOR
FINAL WILDLIFE AND WILDLIFE HABITAT –
BASELINE CONDITIONS REPORT

APPENDIX A

Figures

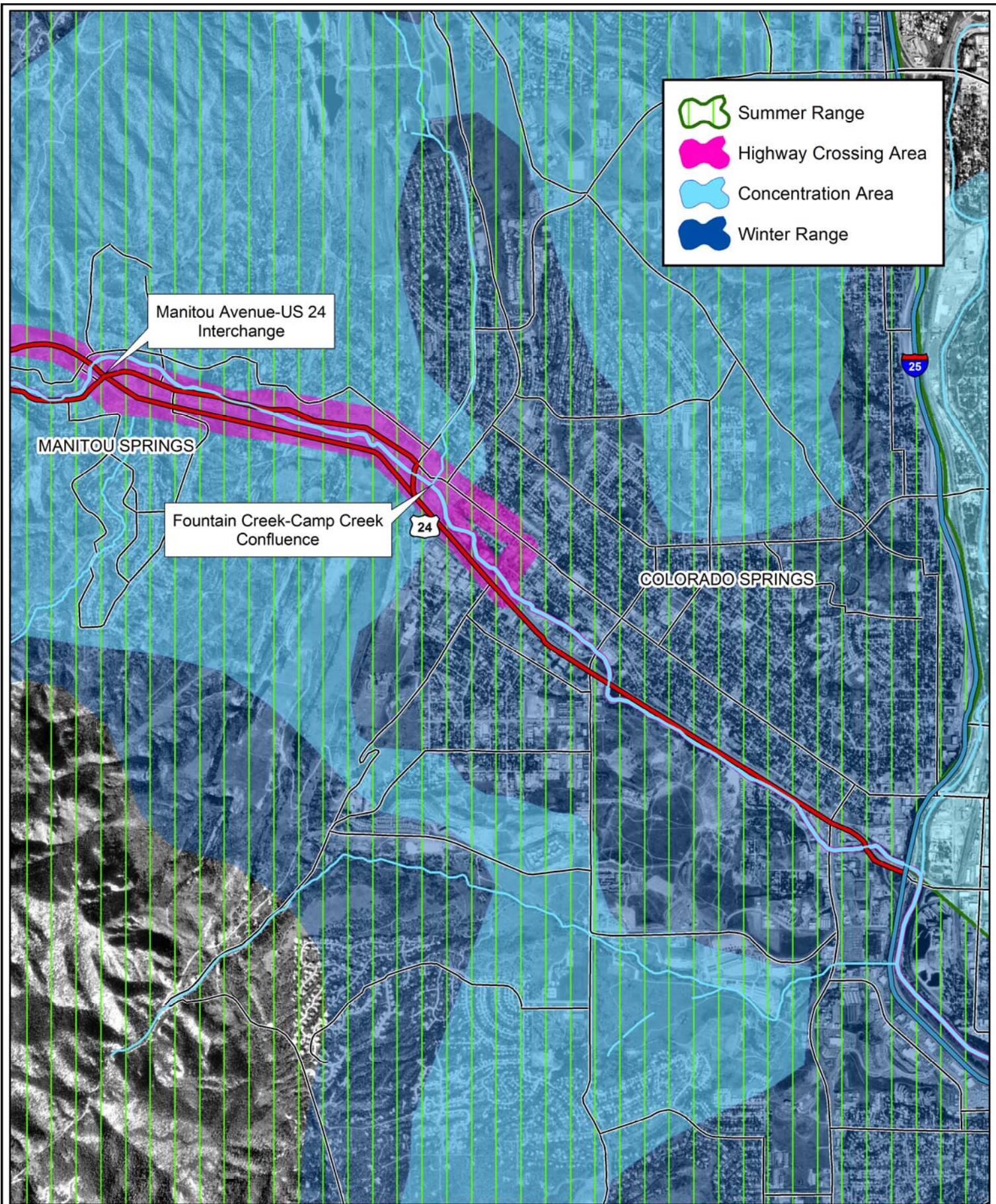


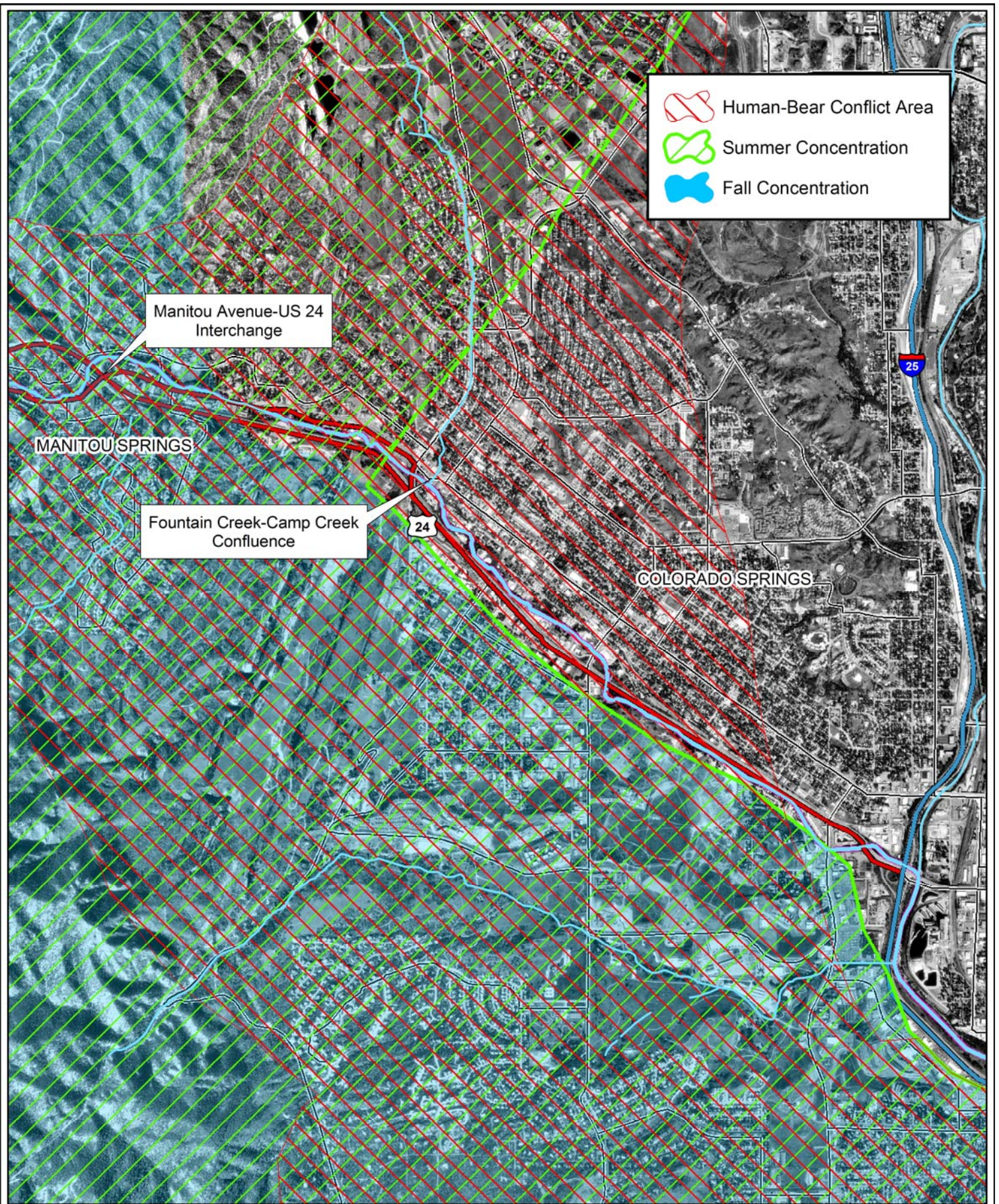
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 USDA-FSA-APFO
 Digital Ortho Mosaic
 1 inch equals 0.49 miles

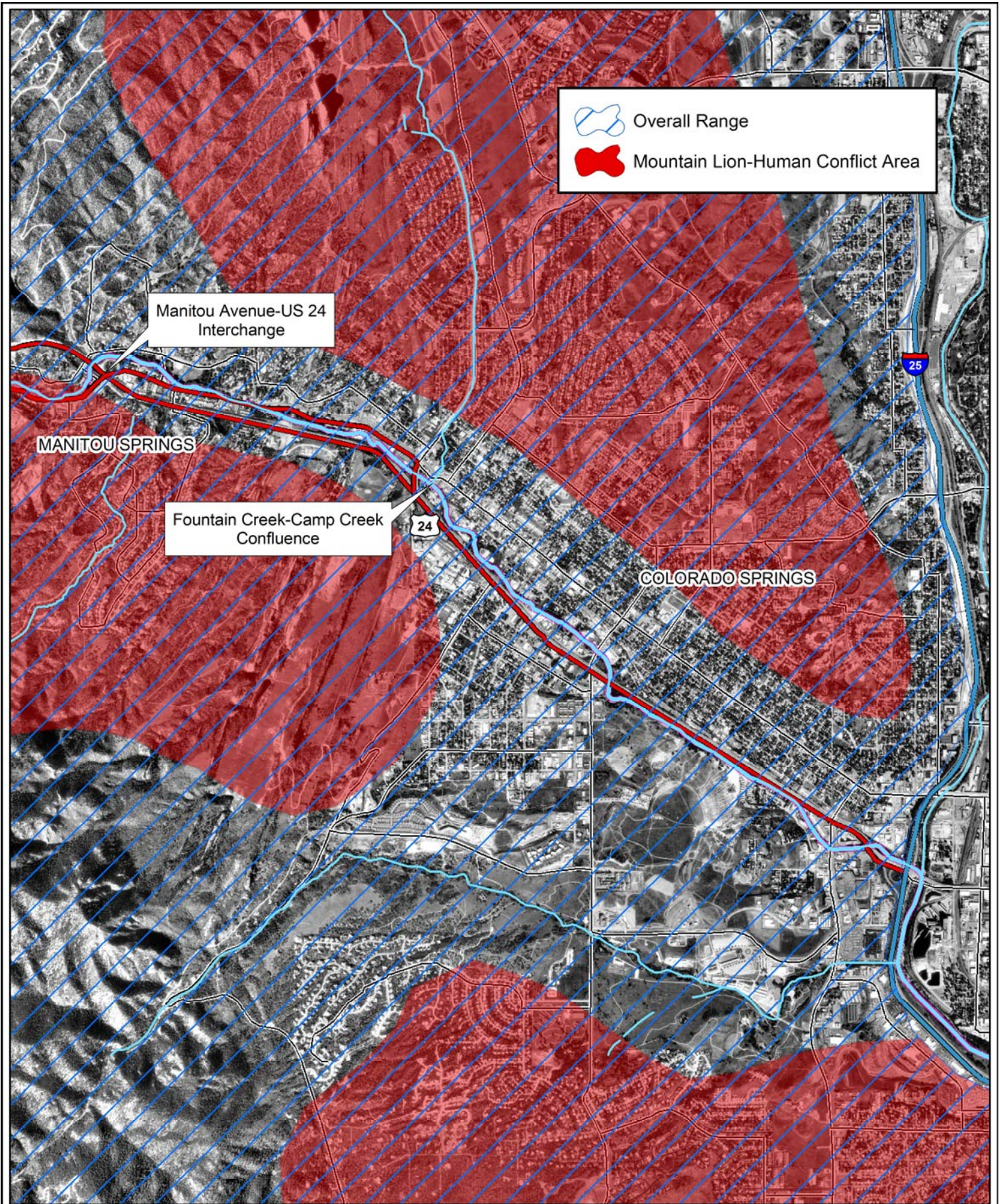
Location Map
US Highway 24
Interstate 25 to Manitou Avenue Interchange
El Paso County, Colorado

Figure
1

Drawn By: J. Lowsky
Project: 01-0203-00-8263-xxx
Date: October 2005
Scale: 1:31,160







Basemap Source:
 USDA-FSA-APFO
 Digital Ortho Mosaic
 1 inch equals 0.49 miles

Mountain Lion
US Highway 24
Interstate 25 to Manitou Avenue Interchange
El Paso County, Colorado

Figure
4

Drawn By: J. Lowsky
 Project: 01-0203-00-8263-xxx
 Date: October 2005
 Scale: 1:31,155

U.S. 24 WEST CORRIDOR
FINAL WILDLIFE AND WILDLIFE HABITAT –
BASELINE CONDITIONS REPORT

APPENDIX B

Photographs



Photo 1. Boulder riprap present along the banks of Fountain Creek, Colorado Springs, Colorado.



Photo 2. Concrete riprap present along the banks of Fountain Creek, Colorado Springs, Colorado.



Photo 3. Bank erosion along Fountain Creek, Colorado Springs, Colorado.



Photo 4. Armored banks present along Fountain Creek, Colorado Springs, Colorado.



Photo 5. The highly disturbed urban landscape with little native vegetation observed within the Fountain Creek study area.



Photo 6. Riparian area along Fountain Creek showing sparse understory vegetation, Colorado Springs, Colorado.



Photo 7. Coyote willow (*Salix exigua*) present along Fountain Creek, Colorado Springs, Colorado.



Photo 8. Typical understory vegetation observed along the western portion of Fountain Creek near Manitou Springs, Colorado.



Photo 9. Russian olive (*Elaeagnus angustifolia*), a non-native species, observed along Fountain Creek, Colorado Springs, Colorado.



Photo 10. Tamarisk (*Tamarix* sp.), a non-native species, observed along Fountain Creek, Colorado Springs, Colorado.



Photo 11. Yellow toadflax (*Linaria vulgaris*), a non-native species, observed along Fountain Creek, Colorado Springs, Colorado.



Photo 12. Mule deer (*Odocoileus hemionus*) tracks observed along Fountain Creek, Colorado Springs, Colorado.



Photo 13. Mule deer (*Odocoileus hemionus*) scat observed along Fountain Creek, Colorado Springs, Colorado.



Photo 14. Potential bobcat (*Lynx rufus*) tracks observed along Fountain Creek, Colorado Springs, Colorado. Note: These tracks could have been made by either a bobcat or a large house cat.



Photo 15. Mallards (*Anas platyrhynchos*) observed along Fountain Creek, Colorado Springs, Colorado.