

## 3.7 Prairie Ecosystem Wildlife

### 3.7.1 Introduction and Methodology

Several site visits were conducted between 2000 and 2002 to observe the presence of species or their sign (e.g., burrows, nests, and scat), to assess the project corridor for wildlife habitat types and conditions, and to note disturbances to natural landscapes. In addition, potential impacts to wildlife resources were assessed by overlaying alignment concepts on aerial photographs of the study area that include natural features and mapped habitats. Table 3.7-1 lists the impacts to wildlife within the study area as a result of the No Action and Proposed Action alternatives and mitigation measures of the Proposed Action.

#### Agency Coordination

The U.S. Fish and Wildlife Service, Colorado Natural Heritage Program, Colorado Natural Diversity Information Source, and El Paso County biologists were consulted for information on wildlife in the project area.

**Table 3.7-1  
Impacts to Grassland Habitat Dependent Wildlife and Proposed Mitigation**

Topic	No Action Alternative Impacts	Proposed Action Impacts	Proposed Action Mitigation
Pronghorn antelope and other wildlife	An increased potential for wildlife and pronghorn road kill	An increased potential for wildlife and pronghorn road kill	Review wildlife road kill data along Woodmen Road to select mitigation strategies if warranted
Grassland raptors (ferruginous hawk, northern harrier, etc.) and other nesting birds	No impact	Very small contribution to inevitable extirpation of some raptor species from the corridor. Potential impacts to nesting birds from land-clearing activities.	In accordance with the Migration Bird Treaty Act, appropriate avoidance, timing of land-clearing activities, and protection measures for active nests.

### 3.7.2 Affected Environment

Vegetation is an important resource, providing habitat for a variety of wildlife species, as well as a protective cover, feeding sources, and breeding areas. It also protects soil surfaces from erosion. The project area occurs within the southern High Plains, which extend south from the Black Forest through the Arkansas River drainage (Weber and Wittman 2001).



### **Vegetation Community**

Vegetation types within the project corridor include riparian species, shortgrass prairie, midgrass prairie, scrub oak, and ponderosa pine woodlands and riparian habitat.

### **Extirpation**

The elimination of portions of a habitat for a specific species, causing members to relocate within their range.

Elevations along Woodmen Road vary from approximately 6,350 feet at the west end near I-25, to 6,900 feet near Templeton Gap Road.

One of the prominent features of the High Plains is shortgrass prairie that is characterized by blue grama and buffalo grass, although midgrass and tall species such as little bluestem and Indian ricegrass occur as well. Within the project area, prairie vegetation has sustained a ranch economy since the mid-1800s. Currently much of the original grassland and prairie vegetation has been altered, primarily by intensive livestock grazing, and since the early 1950s, residential and commercial development. This change from native prairie is also marked by an invasion of alien and weedy species (Weber and Wittman 2001).

The area west of Powers Boulevard has been almost completely developed into commercial and residential land uses, and the area east of Powers Boulevard will be mostly developed by 2030, changing the existing open grasslands to buildings and lawns. The portion of the study area between Powers Boulevard and US 24 still includes some areas of the midgrass and shortgrass prairie ecosystem. Grasslands are the most dominant vegetation type within the Woodmen Road study area (59 percent), mostly east of Powers Boulevard.

The existing grasslands contain some of the original shortgrass or midgrass species, such as blue grama and buffalo grass, but primarily are comprised of numerous introduced species, such as cheatgrass, smooth brome, timothy, and wheatgrass.

Moist swales may support taller native prairie species, such as big bluestem, little bluestem, switchgrass, and wild rose, but grazing may have changed the species composition to predominately nonnative species. Drier hills and sandy soils are marked by scattered yucca.

Many wildlife species that historically occupied midgrass and shortgrass prairie ecosystems are no longer present due to development, agricultural uses, and intensive grazing impacts. Some native prairie species have declined to such a degree that they are currently federal- or state-listed threatened and endangered candidate species, or species of concern (see federal- and state-listed species and species of concern, Section 3.11.3).

West of Powers Boulevard, grassland remains in only a few scattered parcels, and interfaces with shrub vegetation (e.g., skunkbrush, wax currant, Gambel's oak, and yucca). Fringed sage, blue grama, and red three-awn are the dominant species in this area.

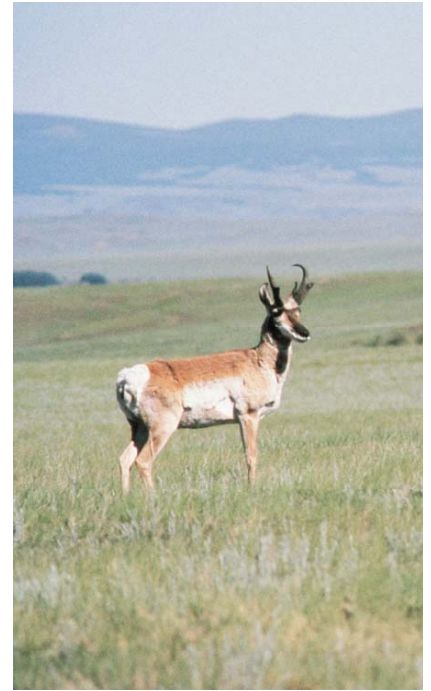


Before the late 1800s, herds of pronghorn antelope were once extremely numerous in the grasslands and prairies within and east of the Colorado Springs area. It is estimated that 2 million pronghorn antelope roamed the grasslands and prairie of Colorado in the early 1800s. Journal entries recorded during the Public Land Surveys, conducted during the 1860s and 1870s in the eastern portion of the Monument Creek Watershed, stated: “the grass is very good and the climate is well adapted for the raising of cattle if one were to judge from the thousands of antelope [sic] which we saw while walking the survey.” By 1900, heavy hunting and conversion of grasslands to development and agriculture had resulted in many of the pronghorn leaving the area. Although regulated hunting has resulted in limited population recovery, persistent populations and herds of pronghorn are mostly isolated due to patchy habitat, fencing for livestock grazing, and dense and rapid residential development, beginning in the late 1800s and continuing today.

A resident herd of pronghorn antelope (approximately 25 to 30 animals) uses the remaining grasslands east of Powers Boulevard year-round. The extreme eastern portion of Woodmen Road, near its intersection with US 24, is considered by CDOW to be a pronghorn concentration area during seasons other than winter.

Since the summer of 2002, the herd of 25 to 30 pronghorn that frequents the study area has been observed less often, likely due to initiation of large residential development projects and increased traffic on Woodmen Road, Powers Boulevard, and other nearby roads. Current accident data, however, did not indicate that wildlife collisions are presently a threat to pronghorn antelope or other wildlife in the Woodmen Road study area.

However, given the approved and/or already under construction development in this area, it is possible that this herd will be extirpated within 5-10 years (as the area reaches full build-out).



*Pronghorn antelope*

Raptors that may seasonally utilize grassland habitats east of Powers Boulevard for breeding and hunting small prey include ferruginous hawk, red-tailed hawk, Swainson's hawk, rough-legged hawk, American kestrel, turkey vulture, and northern harrier. Great horned owls are likely to nest in riparian areas with large cottonwoods, and to hunt over nearby grasslands. As discussed in Section 3.6, a known great horned owl nest exists approximately 0.5 mile south of Woodmen Road near US 24.

As the grasslands east of Powers Boulevard become developed over the next 10 years, it is expected that species such as the ferruginous hawk, Swainson's hawk, and northern harrier, which depend on large expanses of open grasslands for hunting and nesting, will leave the area. Raptors that can adapt to more suburban landscapes, such as the red-tailed hawk, American kestrel, and turkey vulture, may continue to use localized areas within lower-density residential developments.

The Colorado blue butterfly, a state species of concern, has not been observed during flight periods along the Woodmen Road corridor. The closest recorded observation is approximately 15 miles southeast of Woodmen Road near Ellicott. This species prefers to use the wild buckwheat as a host plant for caterpillars and adults. Wild buckwheat occurs only in spotty, isolated sites in the study area, mostly outside of the current ROW on adjacent ranchland, sites most likely not of adequate size for sustaining the butterfly. Therefore, the Colorado blue butterfly is unlikely to occur in the study area.



### **3.7.3 Environmental Impacts**

#### **No Action Alternative**

As described in the Affected Environment, land development is already consuming grassland habitat and adversely affecting grassland-dependent wildlife species. During the next 5 to 10 years, it is expected that all vacant and agricultural land within the project corridor will be converted to urban uses. The loss of grasslands coupled with noise and human presence will likely extirpate those species that are unable to adapt to an urban environment. The No Action Alternative would have no direct impact on grassland habitat and the associated wildlife because all improvements are confined within urbanized areas west of Powers Boulevard.

Furthermore, the No Action Alternative does not consume raptor habitat, thus there is no impact to these species.

Increased traffic, however, may indirectly affect pronghorn antelope and other wildlife. Increased traffic volumes will make it more difficult for pronghorn antelope and other terrestrial animals to access habitats that have already been bisected by Woodmen Road, thus increasing the barrier effect of the road.

#### **Proposed Action**

Like the No Action Alternative, most of the adverse impacts to grassland-dependent wildlife species from land development within the study area, including impacts to birds, have already occurred or will continue to occur, despite the proposed improvements to Woodmen Road

Between I-25 and Powers Boulevard, there is very little grassland to be disturbed. Between Powers Boulevard and US 24, a majority of the land disturbance would be confined within the existing ROW and intersections. The loss of grasslands between Powers Boulevard and US 24 associated with the Proposed Action represents approximately 6 percent of grassland habitat currently available within a 2,000-foot wide corridor.

Due to the characteristics of the predominant soil type (Tructon-Blakeland-Bresser association) found in the corridor, the erosion hazard is moderate to severe and revegetation may be difficult. Re-establishment of native grassland species may take several years. These erosive characteristics will be taken into consideration when vegetation removal for road improvement begins.



A wider roadway and increased traffic volumes will make it more difficult for animals, such as pronghorn antelope, to access habitats that have already been bisected by the existing roadway, thus increasing the barrier affect of Woodmen Road.

Birds, including raptors such as the ferruginous hawk, Swainson's hawk, and northern harrier, which depend on large expanses of open grasslands for hunting and nesting, will leave the area as land development consumes habitat. Since habitat within the corridor is reduced by about 6% because of the Proposed Action, there will be a very small contribution to the inevitable extirpation of these raptor species.

Others that are more tolerant of increased traffic and urban landscapes, such as the red-tailed hawk, American kestrel, and turkey vulture, may continue to use the corridor.

### **3.7.4 Cumulative Impacts**

Rapid growth and development produces low density, suburban land use patterns, spreading the impacts of development broadly across the region.

This landscape is also evident along Woodmen Road east of Powers Boulevard where prairie habitats have been fragmented. As noted in the study, *Sustaining Nature and Community in the Pikes Peak Region*, a regional cumulative effects analysis (RCEA), fragmentation results in direct loss of habitat area and connectivity, degradation of habitat quality, killing of wildlife by vehicles, road avoidance by wildlife due to aversion to noise and human activity, and reduced access to important habitat. Fragmentation also leads to smaller populations that are more susceptible to genetic changes and extinction.



For more than one hundred years, the native prairie ecosystem in the Pikes Peak region has been undergoing change. Early ranching divided the native grassland into smaller fenced parcels restricting the movement of larger species; such as pronghorn antelope, while heavy grazing by livestock disturbed the fragile soil and native grassland vegetation. Exotic and weedy species invaded disturbed areas, and as the land developed, the once spacious grassland was further fragmented by roads, homes, and other urban uses. While some species readily adapt to human activity and urbanization, such as some birds, small mammals, and rodents, many others have been displaced to more suitable habitats away from urban disturbances. Some have died from the loss of food and shelter, while others have been killed by construction equipment, vehicles, and urban predators, such as cats. Growth and development are expected to continue in the Pikes Peak region and along Woodmen Road, with the inevitable loss of undisturbed prairie habitat and extirpation of a small resident herd of pronghorn antelope.

Added to this loss from development is approximately 126 acres of grassland habitat that will be taken due to the construction of the Proposed Action. This is a small amount when compared to approximately the 514,000 acres of total grassland habitat that exists today within the Pikes Peak region (as reported in the RCEA) or even to the expected loss of about 9,000 acres from ongoing development within the Woodmen Road corridor in the foreseeable future, as shown in Table 1-1. Nevertheless, the loss of grassland in the Woodmen Road corridor from all actions will result in a wide range of negative impacts to the native species that are dependent upon them, including extirpation of pronghorn and certain raptors, a large reduction of habitat, habitat fragmentation, and a decline in species populations and diversity.



### 3.7.5 Mitigation for the Proposed Action

Prior to construction, wildlife mortality data will be reviewed to determine appropriate mitigation strategies such as additional signage and improved fencing.

Raptors and other nesting birds are protected under the Migratory Bird Treaty Act. Destruction or disturbance of nests that results in loss of eggs or young would be a violation of the MBTA. To prevent impacts to active nests, land-clearing activities, including the removal of structures as well as vegetation, will be performed prior to the breeding season of birds (primarily April 1<sup>st</sup> to Aug. 15<sup>th</sup>). If land-clearing can not be avoided during the breeding season, surveys for nesting birds will be conducted before land-clearing begins. All active nests will be protected. Since each bird species has a different tolerance to disturbance, appropriate buffer zones around any active nest will be established by qualified biologists prior to the resumption of activities in the area. Recommended buffer zones and seasonal restrictions (Craig 2001) for the raptor species most likely to nest within the study area are:

- 0.33 mile for red-tailed hawk (February 15 - July 15)
- 0.25 mile for Swainson's hawk (April 1 to July 15)
- 0.5 mile for ferruginous hawk (March 1 to August 15)

