

## Black-Tailed Prairie Dog

The black-tailed prairie dog was added to the list of candidate species for federal listing on February 4, 2000 (USFWS 2000b). At that time, the USFWS concluded that listing of the black-tailed prairie dog was warranted but precluded by other higher priority actions. No specific date of proposal for listing was given, but the USFWS has committed to reviewing the status of the species one year after the February 4, 2000 publication date of the above-mentioned notice (USFWS 2000c).

The black-tailed prairie dog is a highly social, diurnally-active, burrowing mammal. Aggregations of closed social groups, known as coterries, form the basic unit of prairie dog populations (USFWS 1989b). Found throughout the Great Plains in short-grass and mixed-grass prairie areas (Fitzgerald et al. 1994), the black-tailed prairie dog has declined in population numbers and extent of colonies in recent years. Many other wildlife species, such as the black-footed ferret (as mentioned above), swift fox, mountain plover, ferruginous hawk, and burrowing owl are dependent on the black-tailed prairie dog for some portion of their life cycle (USFWS 2000c). During site visits on August 4, 17, and 31, 2000, four small prairie dog colonies were observed scattered along the entire Project Area (**Figure C-4**). These field observations were confirmed by CDOW prairie dog colony mapping (CDOW 2000b). The four colonies are located in the following areas from north to south (**Figure C-4**):

- Red Mountain Ranch Road and Larimer County 19 Road (1.25 miles north of Larimer County Road 80);
- Northwest of Miner's Lake (near the intersection of County Roads 66 and 21)
- West of the Poudre Substation; and
- North of the Timberline Substation.

The colony north of Timberline Substation is maintained by the City of Fort Collins as an experimental area for study of barriers to prairie dog movement. This area, along with all other prairie dog colonies will be avoided during project-related activities.

## Preble's Meadow Jumping Mouse

Preble's meadow jumping mouse (Preble's mouse) (*Zapus hudsonius preblei*), a federally-listed threatened species (USFWS 1998a), is endemic to the Colorado Piedmont east of the Front Range in east-central Colorado and along the Laramie Mountains in southeastern Wyoming. The subspecies has declined within its historic range, probably due to habitat destruction from urbanization, livestock grazing, and water diversions.

In general, meadow jumping mice (*Zapus hudsonius*) are one of the most profound mammalian hibernators having inactive periods of five to six months of the year. A significant weight increase can be observed prior to the hibernation period. Mice apparently breed soon after emerging from hibernation until late summer and have two to three litters per year (Whitaker 1972). Preble's mice likely only have one or two litters per year. Meadow jumping mice are omnivorous, eating seeds, fruit, insects, and fungi. Recent food habit studies funded by CDOW (Shenk 2000) confirm a similar diet in Preble's mice.

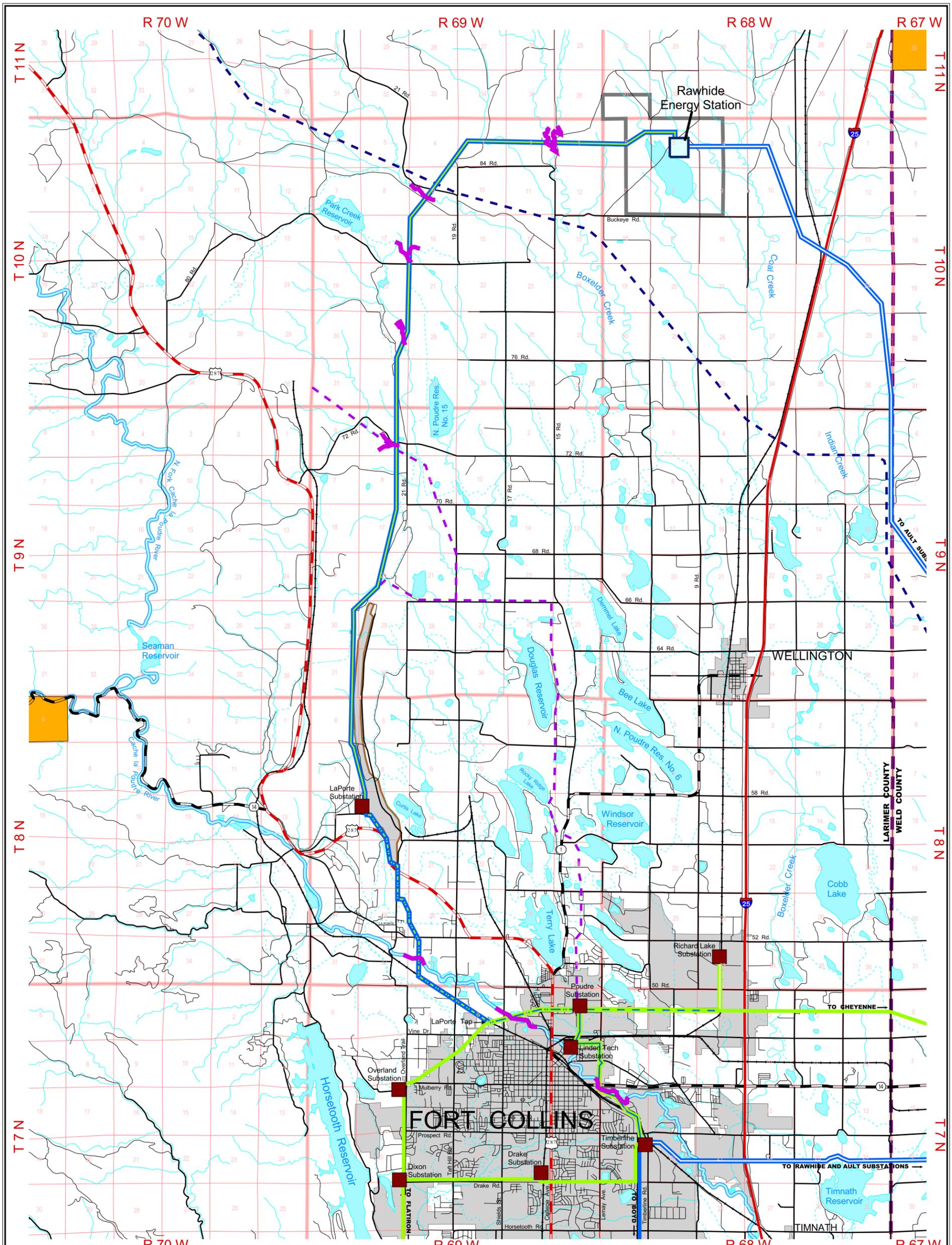
Little is known about the habitat requirements of Preble's mice except what is revealed in recent unpublished reports and anecdotal information from small mammal studies in riparian areas. Bakeman (Armstrong, et al., 1997) provides a summary of what is known of Preble's mouse habitat use in Colorado. Apparently, this subspecies is restricted to multi-strata, stream-side vegetation often in association with willows (*Salix* spp.) and in areas of thick herbaceous undergrowth. Other studies of meadow jumping mice in the eastern half of North America have reported habitat associated with grassy vegetation of adequate herbaceous ground cover (Whitaker 1963) and moist lowlands areas as opposed to mesic uplands (Quimby 1951).

Biologists found potential Preble's mouse habitat during a habitat assessment of the Project Area. Habitat is found along the Cache la Poudre River and of particular interest are Natural Areas managed by the City of Fort Collins (**Figure C-5**). This corresponds to the portion of the Project Area that is to be rebuilt and upgraded between the Poudre and Timberline Substations. These areas where the transmission line crosses the river, contain good quality habitat adjacent to the river. The northern portion of the Project Area (i.e., north of the Cache la Poudre River) could support Preble's mouse habitat if these riparian areas (e.g., Park or Boxelder Creeks) were not so heavily grazed. In areas of potential habitat (i.e., the Cache la Poudre River) the defined habitat areas include a 300-foot upland foraging area around appropriate wetland types within the ROW. This upland area is a standard width beginning at the 100-year floodplain demarcation and is suggested by the USFWS to be protective of areas of potential habitat (USFWS 1998c).

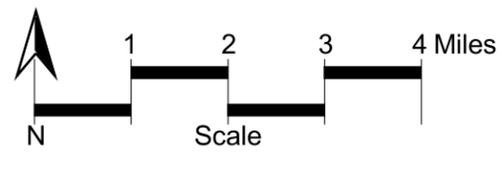
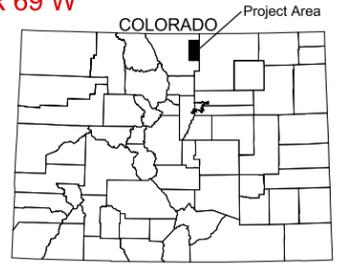
According to the Colorado Natural Heritage Program, there are no known populations of Preble's mice in the Project Area. There has been extensive trapping along the Cache la Poudre River over the last four years (CFC 2000). Within the Project Area and at downstream sites, more than 25 separate trapping efforts have been conducted along the Cache la Poudre River without a single Preble's mouse capture. However, in 1998, CDOW survey crew captured Preble's mouse along Watson Lake, approximately 2 miles upstream of the Project Area (**Figure C-5**).

### **Ute Ladies'-Tresses Orchid**

Ute ladies'-tresses orchid is a federally listed threatened endemic orchid that occurs primarily in seasonally moist soils near springs, lakes, or perennial streams. The orchid establishes in open grass and forb-dominated sites that are not overly dense or overgrown (Coyner 1989, 1990; Jennings 1989, 1990). Populations occur in mesic or wet meadows near riparian edges, gravel bars, and old oxbows along perennial streams within an elevational range of 4,000 to 7,000 feet. A few populations in eastern Utah and Colorado are found in riparian woodlands, but the orchid seems generally intolerant of shade. Most populations occur as small, scattered groups occupying relatively small areas within the riparian system. This orchid may require sub-irrigation at least during the growing season, which in this semi-arid climate dictates a close affinity with floodplains where the water table is near the surface throughout the growing season and into early autumn.



- LEGEND**
- Rebuild Existing 115kV Single Circuit to 115kV Double Circuit
  - Upgrade Existing 115kV Single Circuit to 115/230kV
  - Rebuild Existing 115kV Single Circuit to 115/230kV
  - Convert Existing 115kV Double Circuit to 115/230kV
  - Upgrade Existing 230kV Single Circuit to 230kV Double Circuit
  - Existing 115kV Double Circuit
  - Existing 230kV Double Circuit
  - Existing 115kV Single Circuit
  - Existing 230kV Single Circuit
  - Existing Substation
  - Rawhide Energy Station
  - Rawhide Property Boundary
  - Rural Electrical Association Transmission Line
  - Western Area Power Administration 345kV Circuit
  - Rare Plant Survey Area
  - Colorado Butterfly Plant Occurrence Area
  - US Interstate Highway
  - US Highway
  - State Highway
  - Primary Road
  - Secondary Road
  - Railroad
  - Cache la Poudre River
  - Stream
  - Ditch or Canal
  - Aqueduct
  - Lake/Reservoir
  - Section Line
  - County Line
  - Township/Range
  - Mine Boundary
  - Municipality



SOURCE: Colorado butterfly plant occurrence areas provided by Colorado Natural Heritage Program. Rare plant survey areas identify where biologists' searched for the presence of Ute ladies'-tresses orchid and Colorado butterfly plant.



**PLATTE RIVER POWER AUTHORITY**  
**FORT COLLINS TRANSMISSION LINE UPGRADE PROJECT**  
**Figure C-5**  
**T&E Plant Occurrence and Survey Areas**



The orchid is well adapted to disturbances from stream movement and is tolerant of other disturbances, such as grazing, that are common to grassland riparian habitats (USFWS 1995). It can become established in heavily disturbed sites, such as revegetated gravel pits, heavily grazed riparian edges and along well-traveled foot trails on old berms (USFWS 1995). Ute ladies'-tresses orchid is commonly associated with horsetail, milkweed, verbena, blue-eyed grass, reedgrass, goldenrod, and arrowgrass.

There are no known occurrences of Ute ladies'-tresses orchid within the Project Area. The nearest known occurrence of this species is west of Fort Collins along a tributary of the Cache la Poudre River (CNDIS 2000). The exact location is unknown, but is near LaPorte.

A survey for Ute ladies'-tresses orchids was conducted by Greystone over two dates, August 17 and 31, 2000, within the Project Area concentrating on areas of potential habitat (**Figure C-5**). These areas included the following stream crossings within the Project Area:

- Rawhide Energy Station Creek;
- Boxelder Creek and associated tributary;
- Park Creek;
- Owl Canyon Creek; and
- Cache la Poudre River (near LaPorte and on City of Ft Collins Natural Areas).

The survey methods followed USFWS guidelines (USFWS 1995). No populations of the orchid were found within the Project Area. A survey report was submitted to USFWS on December 7, 2000. Additional information was given to USFWS on January 18, 2001 (**Attachment 1**).

### **Colorado Butterfly Plant**

Colorado butterfly plant was listed as threatened on November 17, 2000 (USFWS 2000d). It is a member of the evening primrose family and is found along the eastern slopes of the Rocky Mountains from Castle Rock, Colorado to Cheyenne, Wyoming. Preferred habitat for this species is moist prairie meadows and transition zones between wet stream bottoms and rich floodplain areas (Spackman et al. 1997, USFWS 1998b). Although potential habitat does occur within the Project Area, a CNHP record search identified no occurrences of this species in the vicinity. Additionally, no plants of this species were observed during the August 17 and 31, 2000 rare plant surveys. These rare plant surveys were conducted during the proper survey windows for both of these rare plant species. The nearest known occurrence of the Colorado butterfly plant is approximately 4 miles northeast of the Rawhide Energy Station along Spottlewood Creek (CNDIS 2000). Another known occurrence near the Project Area is northwest of Fort Collins, approximately 5 miles west of State Highway 287.

### **Effects of the Proposed Project**

#### **Bald Eagle**

The Proposed Project will not affect nesting bald eagles because there are no known active or inactive nests within one mile of the Project Area (**Figure C-3**). There is an active nest along the Cache la Poudre River southeast of Fort Collins approximately 6.5 miles southeast of the

Timberline Substation (CDOW 1998). These eagles use the Big Thompson River and the Cache la Poudre River, outside of the Project Area, as summer foraging areas (CDOW 1998). Because the CDOW does not indicate any bald eagle summer use in the Project Area, no concerns exist for effects on summer foraging of bald eagles from project activities.

The Proposed Project has potential to affect wintering bald eagles as eagles do use the area in winter. The CDOW has indicated eagles frequent the Project Area in winter. They feed at reservoirs adjacent and near the Project Area and, in general, use the Cache la Poudre River Valley and associated tributaries in winter (CDOW 1998, **Figure C-3**).

Although bald eagles frequent the Project Area in winter, no data indicate the existing line causes either collision or electrocution of bald eagles. The installation of the second transmission line on existing structures, once completed, may slightly increase the potential for collision or electrocution, because there will be additional conductors in the air, but this increase will likely not be significant. Moreover, the type of construction activities, such as “pull sites” and installing conductors, combined with the short duration of these activities, and the relatively unobtrusive maintenance duties, are not likely to pose an additional disturbance to bald eagles beyond the existing conditions. In fact, the existing and proposed transmission line configuration meets design recommendations included in *Suggested Practices for Raptor Protection in Power Lines: The State of the Art in 1996* (APLIC 1996). These design criteria minimize the chance of raptor electrocution, including bald eagles.

The portion of the Project Area where the wooden H-structures are being replaced in the process of rebuilding and upgrading the line (**Figure C-1**), poses a different set of conditions to bald eagles. The existing conditions will change by having additional conductors in the air and in a different configuration at a different height (i.e., higher). However, given the fact that this area is more urbanized than other parts of the Project Area and that no known summer nests or winter roosting or concentration areas are known in or near the Project Area, the impacts to bald eagles through collision or electrocution will likely be nonexistent.

### **Mountain Plover**

The Proposed Project has potential habitat and could potentially have effects on mountain plovers, albeit on a short-term basis only. There are no known plover nesting sites within the Project Area, however, more surveys should be conducted in appropriate habitat to further document these conditions or alert Platte River and Western to a change in these conditions (i.e., nesting mountain plovers observed). No ground disturbance is anticipated in the northern portion of the study area where potential mountain plover habitat is found. All other activities are short-term in duration and with adherence to survey guidelines prior to construction activities, impacts to the mountain plover will be kept to a minimal level.

### **Black-Footed Ferret**

Due to the fact that only four widely separated prairie-dog towns within or near the Project Area of a combined acreage well below 80 acres, no habitat exists for black-footed ferrets. Therefore, the Proposed Project has no potential to affect the black-footed ferret.

### **Black-Tailed Prairie Dog**

The Proposed Project has minimal potential to affect the black-tailed prairie dog. There are four small colonies widely distributed within the Project Area, however, the Proposed Project does not require any ground disturbance in or near these colonies. In the places where ground disturbance is required (i.e., structure replacement) no colonies are present. No “pull-sites” will be required to be established in colonies and transmission line installation can span the colonies, therefore no effects to black-tailed prairie dogs are expected.

### **Preble's Meadow Jumping Mouse**

A small portion of the Project Area along the Cache la Poudre River contains potential habitat for Preble's meadow jumping mice. Platte River will work outside of potential habitat that includes wetlands and a 300-foot upland area outside of the 100-year flood plain (**Figures C-2 and C-4**), except in locations where the existing poles are within these designated upland areas when pull-sites must be located within the upland habitat component, and when access roads must be built within the upland habitat component. Platte River and Western propose to place the new single-column, steel pole structures in the same locations as the existing H-frame, wood poles. The existing pole locations are already disturbed areas and offer little cover or forage value to Preble's mice. Beyond these old pole locations, no new disturbances (i.e., no new pull sites or poles) will be located within Preble's mouse habitat, including the 300-foot upland designations, without coordination with the proper federal agencies. At this time, new structure installation at old pole locations within the 300-foot upland designations are foreseen in a few locations along the Cache la Poudre River. Although the old pole locations offer no habitat to Preble's mice, equipment access to these locations may temporarily disturb Preble's mouse habitat.

### **Ute Ladies'-Tresses Orchid**

There will be no effects to the Ute ladies'-tresses orchid from the Proposed Project due to the lack of known occurrences within, and the distance from known occurrences to, the Project Area (CNDIS 2000). In addition, Project Area surveys in potential orchid habitat along stream and wetland crossings, during August 2000, did not identify any orchid plants. Potential habitat for this orchid occurs in wetland areas and pull sites or poles will not be located in wetlands without the appropriate permits and permission from federal agencies.

### **Colorado Butterfly Plant**

There will be no effects to the Colorado butterfly plant from the Proposed Project due to the lack of known occurrences within, and the distance from known occurrences to, the Project Area. In addition, Project Area surveys in potential habitat along stream and wetland crossings, during August 2000 did not identify any Colorado butterfly plants.

### **Determination**

Determinations were made for the seven species considered in this Biological Assessment Report based on the terms for effects findings listed in the U.S. Fish and Wildlife Service Consultation Handbook (USFWS 1998d). We applied a “no effect” determination when we concluded no

impacts to the listed, proposed, or candidate species or its designated critical habitat are expected from the project-related activities. In contrast, we applied a “may affect, but not likely to adversely affect” determination when impacts to listed, proposed, or candidate species are remotely possible, but greatly reduced by mitigating measures (i.e., discountable) or when impacts to a species’ habitat is possible, but this habitat is not designated as critical habitat nor is it of a significant scale (i.e., insignificant).

### **Bald Eagle**

Implementation of the Proposed Project may affect, but is not likely to adversely affect, the bald eagle or its habitat, due to discountable effects. This determination is based on the fact that the Proposed Project will not significantly change the configuration of the existing transmission lines, except in the more urbanized areas of the Cache la Poudre River where the lines would be rebuilt with new structures. The Proposed Project activities do not involve significant additional disturbances compared with the ongoing human activities in this area of the Cache la Poudre River. Additionally, the existing line does not have a history of raptor electrocution or collisions, and design of the new transmission line will not pose any additional risk of electrocution and will not significantly increase the chance for collisions.

### **Mountain Plover**

Implementation of the Proposed Project may affect, but is not likely to adversely affect this species or its habitat. This determination is based on the fact that suitable habitat is present in the Project Area, but impacts to that habitat are expected to be minimal. Additionally, mountain plovers are known from this general area of Larimer County, but are not known to use the Project Area. It is quite possible that mountain plovers do use the area, but it has simply never been documented. Impacts to nesting mountain plovers are possible if project-related activities occur during the nesting season. However, surveys prior to onset of project-related activities in suitable habitat will identify active nest sites. This approach would greatly reduce the chance of disturbing or destroying mountain plover nests and greatly reduce effects to this species. For these reasons, affects will be insignificant.

### **Black-Footed Ferret**

Implementation of the Proposed Project will have no effect on this species or its habitat. This determination is based on lack of known occurrences in Larimer County and lack of suitable habitat within the Project Area. Although there are prairie dog colonies in the area, none of them are either individually or in total, large enough to support ferrets (i.e., lacking suitable habitat). Lastly, these colonies will not be disturbed by the project-related activities.

### **Black-Tailed Prairie Dog**

Implementation of the Proposed Project will not affect the black-tailed prairie dog or its habitat. Although there are prairie dog colonies in the Project Area, these colonies will not be disturbed by project-related activities and activities close to colonies will be minimal and of short duration.

### **Preble's Meadow Jumping Mouse**

Implementation of the Proposed Project may affect, but is not likely to adversely affect, this species or its habitat. Given the fact that Preble's mice have not been captured in the Project Area after extensive trapping efforts within and downstream of the Project Area, it is difficult to see how individual mice would be affected (CFC 2000). Old pole locations, and correspondingly the new structures, are in previously disturbed areas, and this activity is not likely to adversely affect the Preble's mouse or its habitat. Pull sites located in upland habitat will disturb small portions at Preble's mouse habitat, however these impacts will be small, temporary and short of duration.

Construction of new access roads (if any) along the Cache la Poudre River have the potential to disturb upland components of Preble's mouse habitat. At this time, no riparian habitat will be impacted. Even though there is habitat in the Project Area, there are no known populations in the Project Area. Project-related activities are planned to avoid this species' habitat when possible and this should greatly reduce any disturbance to the habitat. The impacts to Preble's mouse habitat is likely insignificant and therefore not likely to adversely effect.

### **Ute Ladies'-Tresses Orchid**

Implementation of the Proposed Project will have no effect on this species or its habitat. This determination is based on a lack of known occurrences for this species in the Project Area.

### **Colorado Butterfly Plant**

Implementation of the Proposed Project will have no effect on this species or its habitat. This determination is based on a lack of known occurrences for this species in the Project Area.

<b>TABLE C-1 Endangered, Threatened, Candidate, Sensitive, and Wildlife Species of Concern<sup>1</sup></b>			
<b>Common Name (Scientific Name)</b>	<b>Federal Status<sup>2</sup></b>	<b>General Habitat</b>	<b>Project Potential Impacts</b>
Bald Eagle ( <i>Haliaeetus leucocephalus</i> )	T	Riparian areas, rivers and lakes	Moderate; winter use in general area of the ROW
Mountain Plover ( <i>Charadrius montanus</i> )	PT	Short-grass prairie	Moderate; suitable habitat occurs within the ROW
Black-tailed prairie dog ( <i>Cynomys ludovicianus</i> )	C	Short- or mid-grass prairie	Moderate; suitable habitat occurs within the ROW
Preble's meadow jumping mouse ( <i>Zapus hudsonius preblei</i> )	T	Woody riparian areas with thick herbaceous cover and water	Minimal; suitable habitat will be avoided during construction activities
Black-footed ferret ( <i>Mustela nigripes</i> )	E	Associated with large prairie dog colonies	None; no known populations in Larimer County, no habitat in ROW
Ute ladies'-tresses orchid ( <i>Spiranthes diluvialis</i> )	T	Subirrigated, alluvial soils along streams & in floodplain meadow	None; no known populations observed during surveys
Colorado Butterfly Plant ( <i>Gaura neomexicana</i> ssp. <i>coloradensis</i> )	T	Subirrigated, alluvial soils in mixed grass prairie	None; no known populations observed during surveys
Footnotes:			
1. Sources: Carlson 2000; CDOW 2000a,c; CNHP 2000; USFWS 2000a			
2. Abbreviations: E=endangered, T=threatened, PT=proposed threatened, C=candidate, SC=Species of Concern, S1=critically imperiled (CNHP), S2=imperiled, S3=vulnerable			

## Literature Cited

- Armstrong, D.M., M.E. Bakeman, A. Deans, C.A. Meaney, and T.R. Ryon. 1997. Report on habitat findings of the Preble's meadow jumping mouse. Boulder, Colorado: Report to the U.S. Fish and Wildlife Service and Colorado Division of Wildlife. 91 pp.
- Avian Power Line Interaction Committee. 1996. Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996. Edison Electric Institute. Washington, D.C.
- Carlson, L. W. 2000. Letter to Greystone Environmental Consultants regarding a list of Threatened, Endangered or Candidate Species in the Project Area. Colorado Field Supervisor. U.S. Department of Interior, Fish and Wildlife Service, Golden, CO.
- City of Fort Collins. 2000. Preble's meadow jumping mouse survey data. City of Fort Collins Utility Department. Eight attached reports.
- Clark, T.W., and M.R. Stromberg. 1987. Mammals in Wyoming. University of Kansas Museum of Natural History, Lawrence, Kansas.
- Colorado Division of Wildlife. 1998. Bald Eagle mapping. Colorado Division of Wildlife. Denver, Colorado. WRIS GIS data downloaded from <ftp://ndis.nrel.colostate.edu/> on September 19, 2000
- Colorado Division of Wildlife 2000a. Personal Communications. Gene Schonfield, Francie Pusateri, and Mike Sherman. September.
- Colorado Division of Wildlife. 2000b. Prairie dog mapping. Colorado Division of Wildlife. Denver, Colorado. WRIS GIS data downloaded from <ftp://ndis.nrel.colostate.edu/> on September 19, 2000 (incomplete data set).
- Colorado Natural Heritage Program. 2000. Personal Communication - Beth Van Dusen, Database manager. September.
- Colorado Natural Diversity Information Source. 2000. All Element Occurrence Records for Colorado in the Natural History Database. Includes data for Mountain plover, Swift fox, Prairie dog, Ute ladies'-tresses orchid, Colorado butterfly plant. GIS data downloaded from <http://ndis.nrel.colostate.edu/> on August 23, 2000.
- Coyner, J. 1989. Status Check on Reported Historic Populations of *Spiranthes diluvialis*. Memorandum, United States Fish and Wildlife Service. Salt Lake City, Utah.
- Coyner, J. 1990. Population Study *Spiranthes diluvialis*. Report of Bureau of Land Management, Salt Lake City, Utah.
- Dinsmore, J.J. 1983. Mountain Plover (*Charadrius montanus*). Pages 185-196 in Armbruster, J.S., ed. 1983. Impacts of Coal Surface Mining on 25 Migratory Bird Species of High Federal Interest. U.S. Fish and Wildlife Service FWS/OBS - 83/35. 348pp.

- Fitzgerald J.P., C.A. Meaney, and D.M. Armstrong. 1994. Mammals of Colorado. Denver Museum of Natural History, Denver, Colorado.
- Fooks, J. 2000. Email to Larry Keith of Greystone Environmental Consultants regarding Species list for Platte River Projects (in Larimer County). 31 July, 2000.
- Graul, W.D., and L. E. Webster. 1976. Breeding status of the Mountain Plover. *Condor* 78:265-267.
- Greystone 2000. Rockport to Rawhide Energy Station Pipeline Project Biological Survey: Larimer and Weld Counties, Colorado. Prepared for Platte River Power Authority. December.
- Jennings, W.F. 1989. Final Report. Species Studied: *Eustoma grandiflorum*, *Spiranthes diluvialis*, *Malaxis brachypoda*, *Hypoxis hirsuta*, *Physaria bellii*, *Aletes humilis*. Report for the Nature Conservancy under the Colorado Natural History Small Grants Program. The Nature Conservancy, Boulder, Colorado.
- Jennings, W.F. 1990. Final Report. Species studied: *Spiranthes diluvialis*, *Sisyrinchium pallidum*, Report for the Nature Conservancy under the Colorado Natural History Small Grants Program. The Nature Conservancy, Boulder, Colorado.
- Kingery, H.E., editor. 1998. Colorado Breeding Bird Atlas. Colorado Bird Atlas Partnership and Colorado Division of Wildlife. Denver, Colorado.
- Knopf, F.L., and B.J. Miller. 1994. CHARADRIUS MONTANUS—montane, grassland, or bare-ground bird? *Auk* 111:504-6.
- Manci, K. 2000. Personal communication. [Nov. 8 letter to T. Ryon, Greystone, Greenwood Village, Colorado. RE: Greystone Environmental Consultants regarding city natural resource concerns in the Fort Collins Project Area.] City of Fort Collins Natural Resource Department. 2 pages.
- Quimby, D.C. 1951. The life history and ecology of the jumping mouse, *Zapus hudsonius*. *Ecological Monographs* 21: 61-95.
- Shenk, T.M. 2000. Personal Communication at January Preble's Mouse Research Group Meeting. Colorado Division of Wildlife Research Biologist.
- Spackman, S., B. Jennings, J. Coles, C. Dawson, M. Minton, A. Kratz, and C. Spurrier. 1997. Colorado Rare Plant Field Guide. Prepared for the Bureau of Land Management, the U.S. Forest Service and the U.S. Fish and Wildlife Service by the Colorado Natural Heritage Program.
- U.S. Fish and Wildlife Service. 2000a. Federally listed and candidate species in Larimer County, Colorado. May 18, 2000. (fax copy).
- U.S. Fish and Wildlife Service. 2000b. 12-month finding for a petition to list the black-tailed prairie dog as threatened. *Federal Register* 65(24): 5476-5488.

- U.S. Fish and Wildlife Service. 2000c. 12-month administrative finding for a petition to list the black-tailed prairie dog from the National Wildlife Federation dated July 30, 1998 [Web Page]. Located at: <http://www.r6.fws.gov/btprairiedog> on August 22, 2000.
- U.S. Fish and Wildlife Service. 2000d. Endangered and threatened wildlife and plants: Threatened Status for the Colorado Butterfly Plant (*Gaura neomexicana* spp. *coloradensis*) From Southeastern Wyoming, Northcentral Colorado, and Extreme Western Nebraska. Final Rule. Federal Register 65(202): 62302-62310.
- U.S. Fish and Wildlife Service. 1999a. Endangered and threatened wildlife and plants: proposed threatened status for the mountain plover. Federal Register 64(30): 7587-7601.
- U.S. Fish and Wildlife Service. 1999b. Mountain Plover Survey Guidelines.
- U.S. Fish and Wildlife Service. 1998a. Final Rule to List the Preble's Meadow Jumping Mouse as a Threatened Species. Federal Register 63(92): 26517-26530.
- U.S. Fish and Wildlife Service. 1998b. Endangered and threatened wildlife and plants: proposed threatened status for the Plant *Gaura neomexicana* spp. *coloradoensis*. Federal Register 63(56): 14060-14065.
- U.S. Fish and Wildlife Service. 1998c. Cover letter for: Interim survey guidelines for Preble's meadow jumping mouse [Web Page]. Located at: <http://www.r6.fws.gov/preble/pmjm1999.htm> on August 15, 2000.
- U.S. Fish and Wildlife Service. 1998d. Endangered Species Consultation Handbook. Final Version, March.
- U.S. Fish and Wildlife Service. 1995. Ute ladies'-tresses (*Spiranthes diluvialis*) recovery plan. United States Fish and Wildlife Service, Denver, Colorado.
- U.S. Fish and Wildlife Service. 1989a. Black-Footed Ferret Survey Guidelines for Compliance with the Endangered Species Act. United States Fish and Wildlife Service, Denver, Colorado.
- U.S. Fish and Wildlife Service. 1989b. Habitat Suitability Index Models: black-tailed prairie dog. Biological Report 82(10.156). July.
- Whitaker, J.O. Jr. 1963. A study of the meadow jumping mouse, *Zapus hudsonius* (Zimmerman), in central New York. Ecological Monographs 33:3.
- Whitaker, J.O. Jr. 1972. *Zapus hudsonius*. Mammalian Species 11: 1-7.