

APPENDIX G
SUMMARY OF ONGOING GRASSLAND SPECIES MONITORING AND RESEARCH
PROJECTS

LONG-TERM MOUNTAIN PLOVER MONITORING

Objectives of Study:

- Nest searches on Pawnee National Grasslands and in South Park
- Trap and band all located nesting adults
- Determine embryonic development during incubation
- Determine reproductive success
- Conduct line transects/point variation on Pawnee NG South Park
- Compare data across years and geography to determine population trend

MOUNTAIN PLOVER ISOTOPE STUDY AND WINTERING GROUND SURVEYS

Objectives of Study:

- Document link between breeding and wintering locales for individual birds
- Identify proportion of plover population that is using native versus non-native habitats during the breeding season and during the wintering season.
- Document individual developmental stress associated with different habitats and seasons.

RELATIONSHIP BETWEEN MOUNTAIN PLOVER BREEDING ACTIVITY AND PRAIRIE DOG COLONIES

Objectives of Study:

- Investigate interaction between the Mountain Plover and prairie dogs on short-grass prairie in eastern Colorado in Crowley, El Paso, Pueblo and Weld Counties.
- Monitor nest success on prairie dog colonies and compare to that of cultivated lands and grasslands.
- Examine the relative importance of prairie dog colonies to breeding activity of the Mountain Plover in eastern Colorado.
- Determine movements of radio-marked adults between prairie dog colonies, cultivated land and grasslands.

MOUNTAIN PLOVER NEST CONSERVATION IN CULTIVATED FIELDS

Objectives of the Project:

- Establish toll free number landowners can voluntarily call before cultivation requesting technicians to survey for and mark mountain plover nests on agriculture fields during the Mountain Plover nesting season -- mid-April through the end of June. Landowners voluntarily cooperating in this effort will be exempt from prosecution for incidental take occurring as a result of standard agricultural practices under the ESA should the Mountain Plover become listed. With current questions about Mountain Plover population trends, and the use of cultivated fields by the Mountain Plover for breeding habitat, this project will serve as a proactive tool to help increase success of Mountain Plover nests on private agricultural lands in Colorado.
- Develop a public outreach program for landowners to better inform them of the species' needs and reach other landowners unfamiliar with the species and CDOW programs for their conservation.
- Implement Mountain Plover surveys by county to obtain better population estimates and distribution information on the eastern plains of Colorado. (Protocols including a call playback and an intensive county wide effort will be considered to maximize results in surveying for this low density species.)

PRIVATE LANDOWNER OUTREACH INITIATIVE

Objectives of the Project:

- Implement outreach efforts with private landowners throughout the shortgrass prairie region of eastern Colorado to work towards long term viability of grassland species, grassland habitats, and the long-term economic viability of the private landowners who own or manage 80% of all lands in the Great Plains.
- Develop partnerships between federal and state agencies and non-profit organizations to provide support for this effort

EASTERN COLORADO SWIFT FOX INVENTORY

Objective of the Project

- Estimate population size and occupancy rates for Colorado's Swift Fox in eastern Colorado using the established mark-recapture protocols.

MONITORING PRAIRIE DOGS AND ASSOCIATED BIRD SPECIES IN EASTERN COLORADO DURING BREEDING AND NON-BREEDING SEASONS

Objectives of the Project:

- Testing potential monitoring protocols for prairie dogs and associated low-density bird species
- Estimating and tracking population sizes of prairie dogs and associated low-density bird species, particularly the Burrowing Owl and Mountain Plover, across prairie dog colonies in eastern Colorado
- Documenting colony location, size, activity (including proportion of each colony that is active/inactive), prairie dog density, burrow density, surrounding habitat, and other pertinent information such as evidence of plague

RESOLVING CONFLICTS OF CHARADRIUS MONTANUS BREEDING ON PRIVATE LANDS

Objectives of the Project:

- Identify relative impacts of common tillage practices upon Mountain Plover production in eastern Colorado.
- Identify potential conflicts on the landscape and critical areas of impact.
- Describe how potential or realized reproductive losses can be either avoided or mitigated with cost-effective alteration of farming practices.
- Describe how the Mountain Plover can be discouraged from nesting on private lands if such are identified as a detriment to annual recruitment.

MAPPING PRAIRIE DOG HABITAT ON PNG

Objectives of the Project:

- Develop suitable habitat models for the black-tailed prairie dog on PNG
- Compare habitat models developed on PNG and other predicted black-tailed prairie dog habitat across eastern Colorado
- Determine how much suitable habitat is currently occupied on PNG
- Test technologies for prairie dog mapping and evaluation of the potential for using DOQQ aerial photography and/or other high-resolution satellite imagery.