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# CONSERVATION PLAN FOR GRASSLAND SPECIES IN COLORADO

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## EXECUTIVE SUMMARY

The shortgrass prairies of eastern Colorado have been an important component in our State's agricultural productivity, ecological diversity and unique character for more than 150 years. Early settlers of this region found a vast sea of productive grasslands suitable for raising livestock and a variety of wildlife species ranging from the black-tailed prairie dog (*Cynomys ludovicianus*) and Mountain Plover (*Charadrius montanus*), to herds of American bison (*Bison bison*), elk (*Cervus elaphus*), deer (*Odocoileus* spp.) and pronghorn (*Antilocapra americana*). Although livestock production remains high throughout most of the region, much has changed within the last century. Conversion of native grasslands to agricultural cropland and urban development has altered the look and character of the shortgrass prairie region. This alteration and fragmentation has changed the level of wildlife diversity once supported by the landscape. Concern has grown over the past several years for the long-term sustainability, diversity and integrity of many components of the shortgrass prairie grassland ecosystem. The Conservation Plan for Grassland Species in Colorado (Plan) offers objectives and actions for the conservation of the black-tailed prairie dog and associated shortgrass prairie species in Colorado. It focuses on high quality science, development of partnerships, voluntary non-regulatory incentives, and uses an adaptive management approach. This includes a continuous process of planning, acting, monitoring and evaluating designed to take into account changes in ecological and social systems, identify and evaluate new information, and make adjustments in actions to achieve specific goals and objectives.

### GOAL OF THE PLAN

"The goal of the Plan is to ensure, at a minimum, the viability of the black-tailed prairie dog and associated species (Mountain Plover, Burrowing Owl, swift fox and Ferruginous Hawk) and provide mechanisms to manage for populations beyond minimum levels, where possible, while addressing the interests and rights of private landowners."

**Objective 1: Meet occupied acreage and distribution target objectives as defined for Colorado in "A Multi-State Conservation Plan For The Black-tailed Prairie Dog, *Cynomys ludovicianus*, in the United States, Addendum to the Black-tailed Prairie Dog Conservation Assessment and Strategy" (Luce 2003).**

Colorado currently exceeds all acreage and distribution target objectives defined in "A Multi-State Conservation Plan For The Black-tailed Prairie Dog, *Cynomys ludovicianus*, in the United States, Addendum to the Black-tailed Prairie Dog Conservation Assessment and Strategy" (Luce 2003). A tiered approach to defining actions for black-tailed prairie dog conservation was developed based on

active occupied acreage. Current conditions are described and zones are defined based on a range of active acres for the black-tailed prairie dog. (See Table 3.) Zones are assigned colors and descriptors based on active occupied acreages starting with the Blue Zone – Abundant (> 450,000 acres) to the Red Zone – Danger (< 150,000 acres). In general, when population levels are at or beyond the Green Zone – Secure (350,000 – 450,000), there are no or minimal restrictions or required actions. Actions focus on voluntary, non-regulatory, incentive-based partnerships with public and private landowners, ongoing monitoring and analysis, and implementation of management actions when populations drop below 250,000 acres.

**Objective 2: The Colorado Division of Wildlife (CDOW) will continue its efforts to produce, encourage and support the best available science regarding monitoring long-term population trends and distribution of shortgrass associated species.**

Data are inadequate to define specific target objectives for shortgrass associated species including the Mountain Plover, Burrowing Owl, Ferruginous Hawk, and swift fox. Population trend data are available for a number of grassland bird species. In many cases, however, data are inadequate for monitoring birds with broad distribution and low population densities. Standardized methodologies are being developed to estimate long-term population trends and distribution. This data will allow managers to identify populations or areas experiencing declines, evaluate reasons for declines and better identify areas for conservation.

**Objective 3: Recognizing that private landowners provide critical habitat and act as stewards to the land supporting populations of the black-tailed prairie dog and other shortgrass associated species, voluntary, incentive-based, non-regulatory partnerships with private landowners will be used to ensure the conservation and management of these species and their habitats in Colorado.**

Conservation efforts focus on providing secure, quality habitat in eastern Colorado to support viable populations of the black-tailed prairie dog and shortgrass associated species including the Mountain Plover, Burrowing Owl, Ferruginous Hawk, and swift fox. The concept of habitat conservation as envisioned in the Plan includes a broad suite of proven conservation tools including working with willing landowners to establish easements and/or management agreements, providing technical assistance on habitat improvements and developing partnerships with private landowners and other agencies/organizations with an interest in shortgrass prairie conservation. The Plan encourages the use of existing incentive programs: Conservation Reserve; Conservation Reserve Enhancement; Grassland Reserve; Wildlife Habitat Incentives; and Environmental Quality Incentives Program through USDA. In addition, the Plan calls for an increased focus on Colorado Species Conservation Partnership Program, Protecting Colorado's Landscapes, and other habitat conservation programs.

**Objective 4: Raise awareness of grassland conservation needs within the private and public sectors. Maintain healthy populations of grassland wildlife in conjunction with economic development and viability, and protection of property rights. Raise awareness for grassland wildlife of high conservation concern including: how to identify the species, habitat needs and management recommendations. Familiarize private landowners with different grassland habitat incentive programs including state, federal and non-profit partners with which they can work. Promote long-term conservation and sustainable use of grassland wildlife and their habitats.**

Working with private and public landowners is an important component of the Plan. Most of the untilled shortgrass prairie is owned and managed by private operators. Providing conservation guidance and information on grassland species to land managers over large areas not only has direct benefits to shortgrass prairie species but also is additive to more focused and intensive strategies that are usually applied to secured areas. Raising awareness of shortgrass prairie conservation needs also helps build partnerships between private land managers and others interested in shortgrass prairie conservation, and helps maintain viable, sustainable agricultural

producers in eastern Colorado. A good example of this is the Mountain Plover Nest Clearing Project, which encourages landowners to call a toll free number prior to tilling their fields. Technicians then survey the field and mark Mountain Plover nests so landowners can avoid them. The goal of the project is to increase nest success for the Mountain Plover on tilled agricultural fields. The Mountain Plover Nest Clearing Project is being implemented through partnerships with private landowners, the CDOW, the US Fish and Wildlife Service (USFWS), the USGS Biological Resources Division, the Rocky Mountain Bird Observatory, the Colorado Farm Bureau, The Nature Conservancy, the Playa Lakes Joint Venture and the Colorado Natural Heritage Program at Colorado State University (See Appendix G).

**Objective 5: Collaborate with Colorado Department of Agriculture (CDA) to demonstrate through law, regulation, or cooperative agreement adequate regulatory authority and regard for black-tailed prairie dog conservation objectives as it relates to the use of toxicants or shooting to control black-tailed prairie dogs causing damage to private property.**

The federal Endangered Species Act (ESA) places a premium on the need to have a regulatory framework in place that will serve to prevent extinctions or further endangerment of species. This Plan calls for the development of a Memorandum of Understanding between the CDOW and CDA which outlines each agency's authorities and responsibilities regarding the use of toxicants to control prairie dogs in Colorado as it relates to the conservation objectives described within this Plan by July 2005.

**Objective 6: Adaptive management, including a continuous process of planning, acting, monitoring and evaluating designed to take into account changes in ecological and social systems, identify and evaluate new information, and make adjustments in actions to achieve specific goals and objectives will be used.**

Adaptive management was one of the guiding principles used in the formulation of this Plan. As ecological or social systems change, adjustments in the objectives and actions outlined in this Plan may be needed. Currently, monitoring systems for the black-tailed prairie dog are on a 3-year schedule. By fall 2006, a technical committee will be selected to review new research information and analyze monitoring data as it is collected, identify changes that would move acreage and distribution targets from one zone to another and make recommendations to decision makers regarding the changes in management necessary to maintain viable shortgrass species populations.

**Objective 7: The CDOW will initiate, continue ongoing and stimulate new research to identify and minimize, eliminate, or mitigate causes for declines when possible for short grass associated wildlife species.**

The Plan calls for a strong research agenda that will support the commitment to adaptive management and effective strategies. It also includes a scientifically rigorous monitoring program. Such a program will evaluate changes in key areas of biology and allow for change of actions in a meaningful timeframe. In addition, this Plan calls for the collection of information that allows for the evaluation of cumulative impacts that result from multiple factors.

**Objective 8: The CDOW will encourage significant contributions from publicly owned lands, particularly the National Grasslands, toward grassland species conservation and work with federal, state, county and municipal partners to support these efforts.**

Significant shortgrass prairie habitat, which supports grassland-associated species in Colorado, is publicly owned and administered. While the State of Colorado cannot mandate how other federal, state, county and city governments manage wildlife habitat on their property, the Plan outlines recommended actions and encourages significant contributions from publicly owned lands, particularly the USDA Forest Service National Grasslands.

**Objective 9: The CDOW will encourage the acquisition and management of city and county open space on suitable grassland habitat along the front range for the conservation of the black-tailed prairie dog and associated grassland species.**

The black-tailed prairie dog and associated species that are the focus of this Plan reside in the greatest numbers on Colorado's eastern plains. As a result, many of the conservation objectives and strategies outlined in this Plan are focused on Colorado's eastern plains. Even so, the black-tailed prairie dog and associated species reside along the front range in urban areas and within the urban/rural interface. These species have considerable value for front range residents. The black-tailed prairie dog, Ferruginous Hawk and other associated species are valued not only as contributors to ecological balance in the ever-changing front range landscape, but also have inherent value as individual animals and are the focus of a wide range of wildlife viewing opportunities. While the biological significance of front range populations of the black-tailed prairie dog is limited with regard to the overall conservation of the species, conservation actions must consider the ecological impacts of changes in habitat and population numbers and the added social relevance of these species for people along the front range.

**Objective 10: Establish shared responsibility (front range and eastern plains) for conservation of the black-tailed prairie dog and associated species.**

The black-tailed prairie dog populations along the front range contribute to the statewide acreage and distribution target objectives defined in this Plan. Actions outlined in the Plan call for developing mechanisms for front range interests (developers, non-profit organizations, etc.) to mitigate the loss of prairie dog habitat along the front range and provide support for shortgrass prairie habitat conservation in eastern Colorado.

**Objective 11: Support and encourage public education and wildlife viewing opportunities on suitable black-tailed prairie dog and grassland open space areas.**

Public outreach will be a necessary part of the conservation effort along the front range for shortgrass prairie species. Raising awareness for grassland wildlife of high conservation concern including impacts to species by fragmentation, overall habitat needs and conservation objectives will be important in gaining support for additional open space lands, building mechanisms for mitigation, developing management strategies for open space lands and so forth.

**Objective 12: The CDOW will work towards developing substantial increases in funding necessary for the conservation of grassland species in Colorado.**

Traditional funding for species conservation work in Colorado includes three primary sources: Great Outdoors Colorado (GOCO), Species Conservation Trust Fund (SCTF) and Game Cash (GC), generated from the sale of hunting and fishing licenses. As this conservation Plan and others like it are completed and implementation begins, it is apparent that substantially more funding will be needed in the future. This argues for seeking a new funding source. This Plan calls for pursuing partnerships with other federal, state, county and municipal agencies, private foundations, private landowners and non-governmental organizations to increase funding for the conservation of grassland species and develop innovative ideas for funding of grassland species conservation in Colorado.

In summary, this conservation Plan outlines a conservation strategy for select shortgrass prairie species in Colorado and does so in the framework of commitment to the people making a living off of the land, adaptive management, high quality science and by fostering the institutional commitments of lead agencies and key partners. A fundamental part of this Plan is the development of habitat goals for the black-tailed prairie dog while at the same time committing to a larger conservation effort that supports the associated species as well as other elements of Colorado's natural heritage.