

**A COOPERATIVE PLAN FOR BLACK-FOOTED FERRET
REINTRODUCTION AND MANAGEMENT**

**Wolf Creek and Coyote Basin Management Areas
Moffat and Rio Blanco Counties, Colorado**



Prepared by the Wolf Creek Work Group
in association with the Colorado Division of Wildlife,
Bureau of Land Management, and U.S. Fish and Wildlife Service
October 2001

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By our signatures hereunder, as designated representatives of government entities that have an active role in implementing or overseeing black-footed ferret recovery activities in the Wolf Creek and Coyote Basin Management Areas in Moffat and Rio Blanco Counties, Colorado, we endorse the concept and process of collaborative management embodied in this plan, and agree to support, within our respective authorities, the continued efforts of the Wolf Creek Work Group and each other in adapting and implementing black-footed ferret management consistent with this plan's stated goals and objectives. We concur that this plan has been developed consistent with the provisions of Colorado Revised Statute 33-2-105.6.

Marianna Raftopoulos
Marianna Raftopoulos, Chair
Moffat County Commissioners

11/13/01
Date

Donald L. Davis
Don Davis, Chair
Rio Blanco County Commissioners

11/13/01
Date

Beverly Rave
Beverly Rave, Northwest District Manager
Colorado State Land Board

11-14-01
Date

Ron D. Velarde
Ron Velarde, West Region Manager
Colorado Division of Wildlife

11/12/01
Date

Kent E. Walter
Kent Walter, White River Field Office Manager
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11/13/01
Date

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LeRoy Carlson, Colorado Field Office Supervisor
Ecological Services
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11-8-01
Date

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ATTACHMENTS

- Attachment A: Final Rule for the Establishment of a Nonessential Experimental Population of Black-footed ferrets in Northwestern Colorado and Northeastern Utah
- Attachment B: Colorado Revised Statute 33-2-105.6
- Attachment C: Excerpts from BLM White River Resource Management Plan
- Attachment D: Guidelines for Managing Surface Disturbance in Prairie Dog Habitats with the Ferret Management Areas
- Attachment E: Physical Evidence of Black-footed Ferret in Moffat and Rio Blanco Counties

BACKGROUND

National Black-footed Ferret Recovery

The black-footed ferret is considered the rarest mammal in North America, and one of the rarest in the world. It is the only ferret native to North America. It is believed that progressive habitat loss beginning in the early 1900's led to a sharp decline in ferret numbers and near extinction of the species. Because of this, black-footed ferrets were protected under the Endangered Species Preservation Act (Public Law 89699) in 1967 and the Endangered Species Conservation Act (P. L. 91135) in 1970. This species was one of the first species listed under the Endangered Species Act of 1973 (P. L. 93205).

The Endangered Species Act (Act), as amended, states: "The purposes of this Act are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth . . ." The Act further states, "... that all Federal departments and agencies shall seek to conserve endangered and threatened species and shall utilize their authorities in furtherance of the purposes of this Act and provide for the development and implementation of species recovery plans." Federal agencies are authorized under the Act to acquire land, allocate funds, and to enter cooperative agreements with state authorities to recover species. A Black-footed Ferret Recovery Plan that set goals for the recovery of the species was completed in 1978, as mandated by the Act.

At the time of listing only one wild population of black-footed ferrets was known. This population was located in and around Mellette County, South Dakota. The exact circumstances leading to the demise of these animals in 1974 is unknown. However, it was a highly dispersed, low density population in which reproduction was insufficient for replacement or expansion. Ferrets were not observed in the wild again until 1981, when a population was discovered near Meeteetse, Wyoming. Considerable effort was expended to study and preserve this population. However, in 1985, Meeteetse prairie dogs began to decline because of sylvatic plague. In addition, canine distemper severely depressed the ferret population. The decision was made to capture all known wild individuals for captive breeding and species preservation. The 18 ferrets captured in 1986 and 1987 have become the seed population for all subsequent recovery efforts.

The Black-footed Ferret Recovery Plan was revised in 1988 following the capture and successful breeding of the Meeteetse ferrets. The new plan called for increasing efforts to locate suitable reintroduction sites throughout the historic range of the species and established nation-wide objectives for the recovery of the black-footed ferret:

- (1) Increase the captive population of black-footed ferrets to a census size of 200 breeding adults by 1991.

- (2) Establish a pre-breeding census population of 1,500 free-ranging black-footed ferret breeding adults in 10 or more populations with no fewer than 30 breeding adults in any population by the year 2010.
- (3) Encourage the widest possible distribution of reintroduced black-footed ferret populations.

Under the revised Recovery Plan, all captive-reared ferrets in excess of the minimum 200 individuals would be available for reintroduction into the wild. The present captive population exceeds this target and is the source for all ferrets released in the wild.

Reintroduction of the black-footed ferret was facilitated by 1982 amendments to the Act. It had become obvious that recovery of many endangered species would not be possible without reintroductions. However, many attempts at reintroduction were resisted. The U.S. Fish and Wildlife Service was unable to assure other federal agencies, state and local governments, and private landowners that reintroduced populations would not disrupt present or future land use. Objections were due primarily to the restrictive "jeopardy" and "take" prohibitions of Section 7 and Section 9 of the Act, respectively. Congress amended the Act to encourage acceptance of reintroductions by adding Section 10(j). This section allows the Secretary of Interior (Secretary) to designate reintroduced populations "experimental", which allows for more flexible management.

The "experimental" classification includes two levels of application. Upon classifying a population "experimental," the Secretary must designate it either "essential" or "nonessential". "Essential experimental" populations are treated as threatened species, rather than endangered, regardless of the status of the donor population. "Nonessential experimental" populations are considered "proposed to be listed" for purposes of implementing the Act. An "experimental" population designation also includes a description of the geographic area in which the "experimental" population will be found. The boundaries of the area are chosen to reduce the possibility of individuals moving outside the area. Once outside the defined area, they may be fully protected by the Act until they can be identified as having originated from the "experimental" population.

Preparations for the first black-footed ferret reintroduction began in Wyoming in 1989. The Wyoming releases were the culmination of several years of effort and coordination between state, federal, and local entities, and private landowners. The management strategy established in Wyoming is a model on which all other reintroduction and management efforts in Montana, South Dakota, Utah, Arizona, and now, Colorado are based.

Nonessential Experimental Population (NEP) designation (as applied to Northwest Colorado/Northeast Utah)

Attempts to reintroduce endangered species are often met with considerable opposition from local citizens concerned about restrictions on federal and private lands. Changes to the Endangered Species Act in 1984 allowed for the designation of specific populations of

threatened and endangered species as both “experimental” and “non-essential” to the recovery and continued existence of the species (i.e., non-essential experimental population or NEP). These designations allow considerable flexibility in managing reintroduced populations of endangered species, affording greater discretion in devising management programs with special, less restrictive regulations for the species and allowing for greater compatibility with established human activities in the reintroduction area. The designation of northwest Colorado and northeast Utah as part of an “Experimental Population Area” (ExPA) for the recovery of black-footed ferrets and the determination that reintroduced black-footed ferrets in the ExPA constitute a “nonessential experimental population” (NEP) is intended to increase the likelihood of ferret reestablishment by promoting local acceptance of, and cooperation in, ferret recovery efforts.

A proposal to establish a nonessential experimental population of black-footed ferret in portions of northeast Utah, northwest Colorado and southwest Wyoming was published in the Federal Register on April 29, 1997 by the USFWS. A Final Rule authorizing establishment of this NEP was published in the Federal Register on October 1, 1998 (Attachment A). The Northwestern Colorado/Northeastern Utah Black-footed Ferret Experimental Population Area (ExPA, Map 1) is one of 9 primary ferret recovery sites selected in North America thus far. In Colorado, the ExPA encompasses Moffat and Rio Blanco Counties west of Colorado State Highway 13 and all of Uintah and Duchesne Counties in Utah. The ExPA also occupies a portion of Sweetwater County, Wyoming.

The nonessential experimental population includes all ferrets located in the ExPA, including any unmarked offspring. All released ferrets and their offspring should remain in the ExPA because of surrounding unsuitable habitat and geographic barriers. The recovery team cooperators (i.e., CDOW, Utah Division of Wildlife Resources, USFWS, and/or BLM) will capture any ferret that leaves the ExPA and will either return it to the release site, translocate it to another site, place it in captivity, or leave it. If a ferret leaves an identified Management Area, and takes up residence on private property within the ExPA, the landowner can request its removal. Therefore, ferrets will remain on private lands only when the landowner does not object to their presence on his/her property.

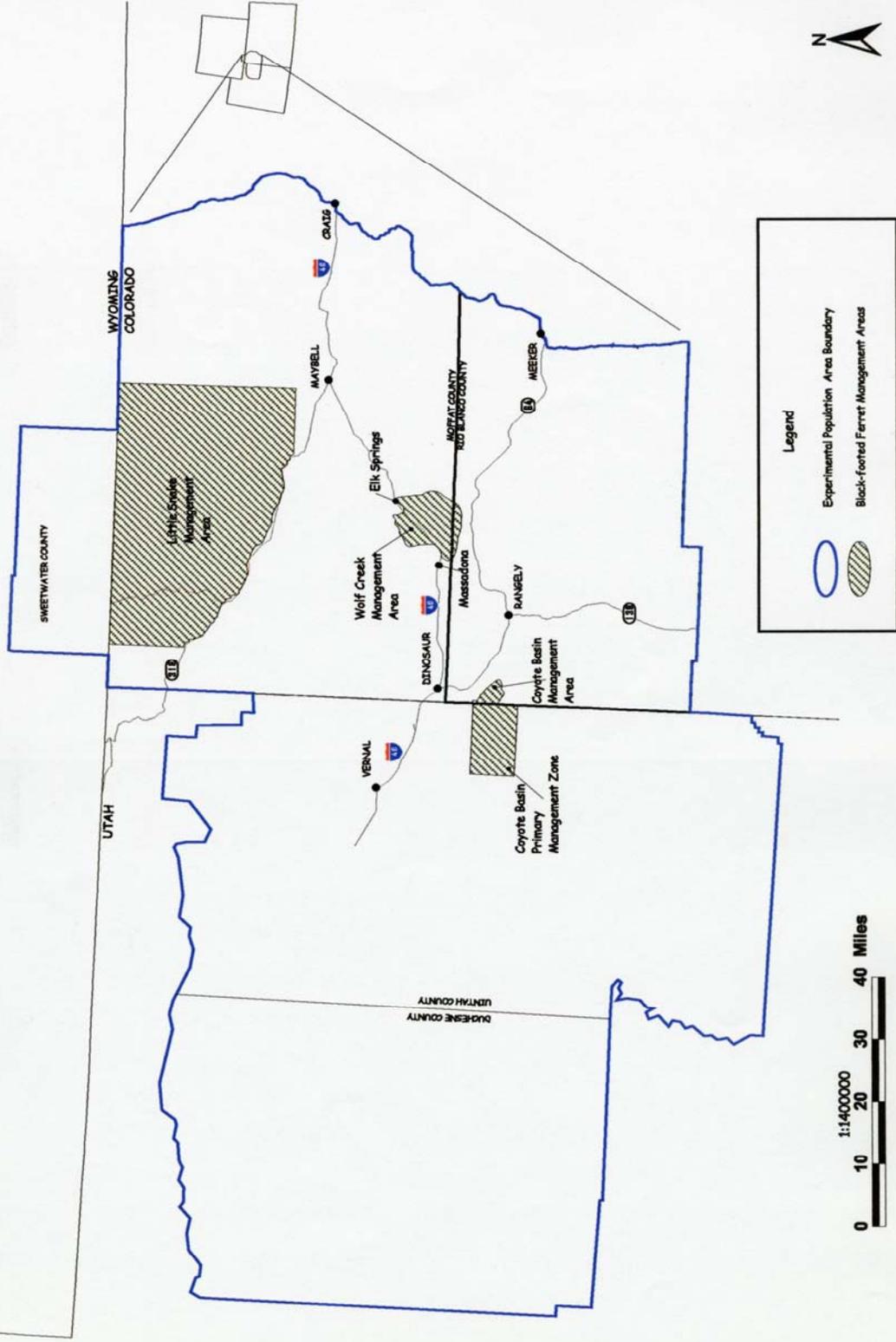
The designation of a reintroduced population of a federally listed species as a NEP significantly reduces federal regulatory requirements. Under NEP designations, federal agencies must continue to use their authority to conserve listed species and are required to confer with the USFWS if the agency determines that its actions are likely to jeopardize the continued existence of the species. However, even if an agency action eliminated the reintroduced NEP population and jeopardized the species’ continued existence, the Act does not compel a Federal agency to stop a project, deny issuing a permit, or cease any activity. Section 7 of the Act does not affect activities undertaken on private lands unless they are authorized, funded, or carried out by a Federal agency. Additionally, the rule includes stipulations allowing that unavoidable and unintentional take of reintroduced ferrets, when such take is non-negligent and incidental to an otherwise lawful activity, does not constitute a violation of the Endangered Species Act.

The Colorado Division of Wildlife, the Utah Division of Wildlife Resources, and the Wyoming Game and Fish Department have endorsed the ferret reintroduction under a NEP designation.

The action proposed by this rulemaking is consistent with the policies and guidelines of the other Interior bureaus (i.e., BLM, National Park Service). These agencies are in support of the proposal to release ferrets under the NEP designation as the only feasible way to pursue ferret recovery in the area. The NEP designation was considered necessary in order to gain the cooperation of landowners, Federal, State and local governmental agencies, and recreational interests within the release site.

Cooperatively developed ferret management plans, including the approved Little Snake Resource Area, Colorado and Coyote Basin, Utah plans, include participation by representatives from mineral development, hunting, off-highway vehicle, general recreation and ranching, landowner, and local government interests. The management plans recognize that existing land uses are important to the cultural and economic vitality of local communities, and each plan includes specific measures to ensure the compatibility of the ferret release with these existing land uses.

**MAP 1
NORTHWEST COLORADO/NORTHEAST UTAH BLACK-FOOTED FERRET
EXPERIMENTAL POPULATION AREA & FERRET MANAGEMENT AREAS**



INTRODUCTION

This document (Plan) provides the basis for reintroducing the federally and state endangered black-footed ferret into 2 management areas formerly designated within the BLM's White River Resource Area. Integral with a nationwide recovery effort, ferrets reintroduced at these sites will be part of an experimental population, considered nonessential to the recovery of the species. This Plan provides guidance for integrating ferret recovery activities into the fabric of prevailing land use, with the express intent of not disrupting or interfering with private land management or the exercise of multiple use management on Public Lands, now or in the future. Barring delays, ferrets could be released into the one or both of the Management Areas as early as October or November of 2001. Subsequent release of ferrets may occur annually for 5 or more years.

The Colorado State Legislature approved the reintroduction of black-footed ferrets into the Northwest Colorado/Northeast Utah Experimental Population Area (Map 1) on April 18, 2000. This legislation and the subsequent Colorado Revised Statute 33-2-105.6 (Attachment B), requires that ferret reintroduction activities be conducted in a manner consistent with the approach used in the Little Snake Resource Area Cooperative Management Plan, dated June 1995. Additionally, it calls for the recovery cooperators to provide regular updates to the local community on the status of reintroduction activities and requires that representatives of local government and affected interests be involved in the resolution of issues that may arise during the reintroduction effort. The formation of the Wolf Creek Work Group and the development of this document is the culmination of those directives.

Preparation of this document was a cooperative effort of local citizens from Moffat and Rio Blanco Counties, representatives of local industry and land use interests, and state, federal and local governments. The local work group (Wolf Creek Work Group) will continue to meet quarterly and review ferret recovery activities in the context of this plan's goals, objectives and management guidelines. This Management Plan will be reviewed and updated as frequently as necessary to address shortcomings or respond to future circumstances and issues consistent with the Plan's stated goals and objectives. This plan is to be accomplished within existing authorities and is not intended to supersede previous agreements or existing agencies' responsibilities.

A number of prior documents, decisions, and actions have formed the framework for the development of this plan. The management guidelines presented in this Plan are wholly consistent with the BLM's White River Resource Area Resource Management Plan (1997), the Final Rule for the Establishment of a Nonessential Experimental Population of Black-footed Ferrets in Northwestern Colorado and Northeastern Utah (Federal Register; October 1, 1998) and the Moffat County Land Use Plan (2001). The concepts used in developing this plan were derived directly from "A Cooperative Management Plan for Black-footed Ferrets, Little Snake Resource Area, Colorado" (June 1995) and the "Final Cooperative Plan for the Reintroduction and Management of Black-footed ferrets in Coyote Basin, Uintah County, Utah" (September 1996). Other documents include an environmental assessment prepared by the USFWS on the proposed reintroduction of black-footed ferrets into this Experimental Population Area as required by the National Environmental Policy Act of 1969, an intra-USFWS biological

opinion, and a Memorandum of Understanding (MOU) between the USFWS, BLM, and CDOW that details the responsibilities and commitments of the participating agencies for all phases of black-footed ferret reintroduction. Collectively, these documents serve to outline and guide the actions necessary to maintain the suitability and utility of the Wolf Creek and Coyote Basin Management Areas for the establishment of a self-sustaining population of black-footed ferrets.

HISTORY AND SEQUENCE OF FERRET RECOVERY EFFORTS IN NORTHWEST COLORADO AND NORTHEAST UTAH

FERRET RECOVERY EFFORTS IN NORTHWEST COLORADO/NORTHEAST UTAH EXPERIMENTAL POPULATION AREA

Cooperative Management Plan for Black-footed Ferrets, Little Snake Resource Area, Colorado

In the spring of 1991, BLM's Little Snake Resource Area in Craig, Colorado issued a notice to the public regarding the potential for reintroduction of black-footed ferret in northwest Colorado. At this time, public opposition to reintroduction efforts was intense. A work group made up of local land users was established during the summer of 1991 to help guide the development of a plan that would allow successful reintroduction of ferret with no impact to private land rights and with little or no impact to activities on public land. This effort culminated in "A Cooperative Management Plan for Black-footed Ferrets, Little Snake Resource Area, Colorado" in June 1995.

Because the potential for ferret reintroduction had not been included in the 1989 Little Snake Resource Area Resource Management Plan (RMP), an amendment to the Little Snake RMP and an Environmental Analysis were also initiated in 1991. As part of the amendment process, public scoping meetings were held in Denver and Craig in September 1991 to identify issues to be addressed in the document. The final Amendment and Environmental Analysis were completed in August 1995.

Cooperative Plan for the Reintroduction and Management of Black-footed ferrets in Coyote Basin, Uintah County, Utah

The concepts regarding black-footed ferret reintroduction were first presented to the Utah public by the Utah Division of Wildlife Resources in Vernal on 17 November 1992. The 88 people attending the meeting were not necessarily opposed to ferret recovery, but were concerned about the effect ferret reintroduction would have on commercial and public use and activities in and around Coyote Basin. Following this meeting, the 16-member Coyote Basin Steering Committee was established. This group was successful in producing the Final Cooperative Plan for the Reintroduction and Management of Black-footed ferrets in Coyote Basin, Uintah County, Utah in September 1996.

Non-essential Experimental Population (NEP) designation

Because Utah and Colorado ferret recovery efforts were closely paralleling one another in time, personnel from each of the states' programs formed a partnership in 1996 to work cooperatively on ferret reintroduction. It was thought that a joint effort would help both reintroduction programs through sharing of resources and expertise. In addition, it would be expedient if both state programs could be covered simultaneously under one federal rule for desired "nonessential experimental" designation.

A proposed rule for a nonessential experimental designation in Colorado and Utah was published in the Federal Register on 29 April 1997. Public hearings were held during the first week of June in Denver, Craig, and Rangely, Colorado, and Rock Springs, Wyoming. Meetings in Utah were held the following week. After written and oral comments from the public forums had been reviewed and responses prepared, the final rule was published 1 October 1998 (Attachment A).

Ferret Releases in the ExPA

The first reintroduction of black-footed ferret into the Colorado/Utah ExPA took place in October 1999 when 26 ferrets were released into Utah's Coyote Basin Primary Management Zone (PMZ). All subsequent releases have occurred in Utah, with an additional 46 ferrets released through November of 1999 and 67 released from September through November of 2000.

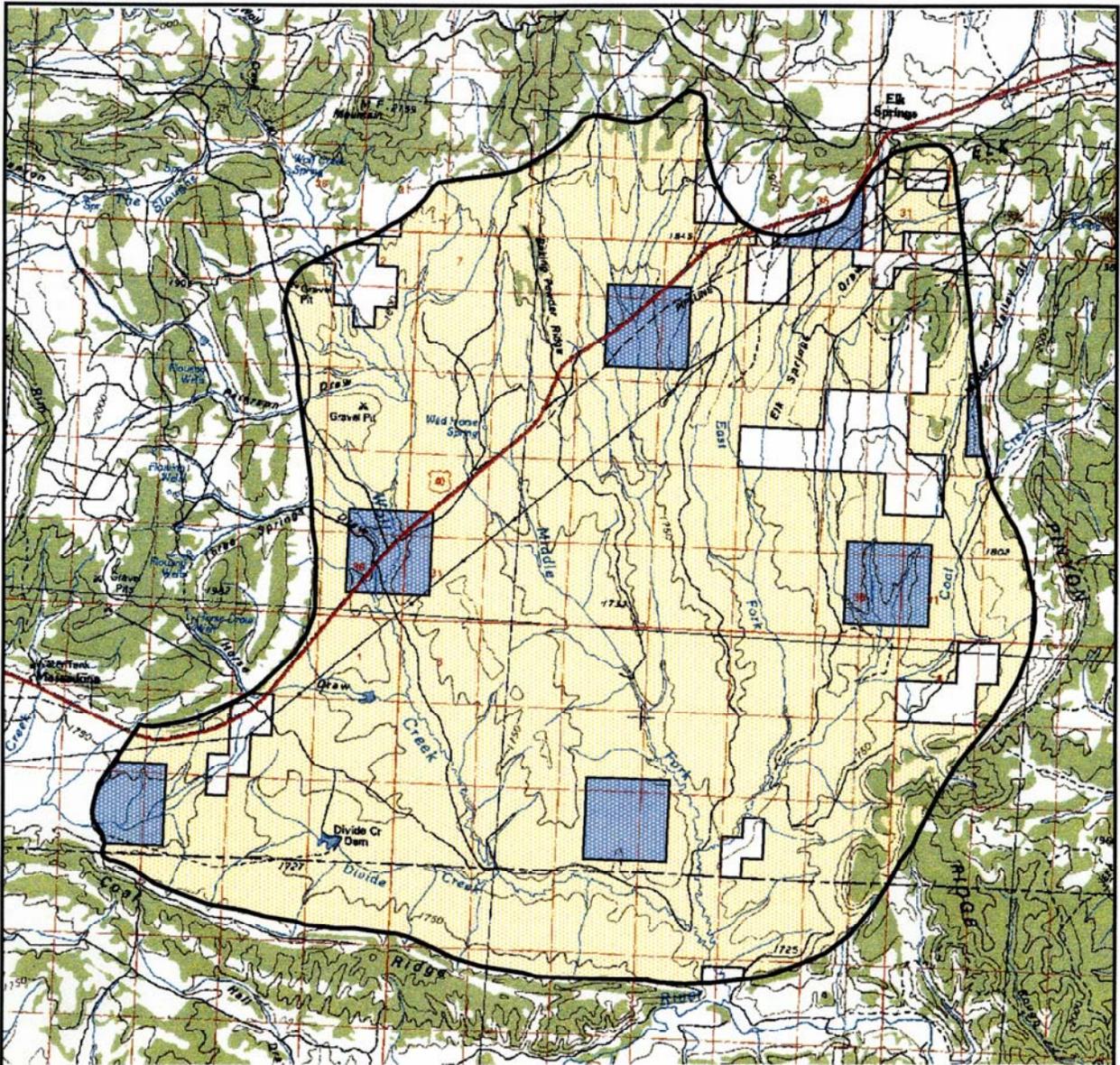
Depending upon the number of ferrets allocated to the Utah/Colorado ExPA for 2001, ferrets may be released in Coyote Basin (both Colorado and Utah) only, or distributed between the Coyote Basin (UT and CO) and Wolf Creek sites. Direct reintroduction of ferrets into the Wolf Creek or Coyote Basin Management Areas of Colorado may occur as early as October 2001.

FERRET RECOVERY EFFORTS IN BLM'S WHITE RIVER RESOURCE AREA

White River Resource Area Resource Management Plan (RMP)

The White River Field Office began revising its land use plan in 1990. Although the previous land use plan broached the issue of ferret reintroductions on public lands within the Resource Area, no specific land management decisions were ever formally developed or approved. The development of the White River RMP involved a series of public meetings and formal public hearings that were conducted in Craig, Meeker, Rangely, Grand Junction, and Denver in June, 1990, and January through March 1995. The issue of ferret reintroduction was discussed in the majority of these meetings. These public forums yielded 240 letters or oral testimonies on the draft RMP from which 1,311 individual comments were gleaned. The 22 comments that dealt with some aspect of ferret reintroduction were issued in the Final RMP in June 1996. No substantial or insurmountable issues were raised in delineation of the Wolf Creek or Coyote Basin, CO areas for subsequent ferret recovery actions. Although some of the comments voiced philosophical differences with the Endangered Species Act, the majority of the comments expressed concern for the ferret's impact on recreation and mineral development, or the desire for BLM to adopt the public input process established by the ferret reintroduction and management plan for the Little Snake Resource Area. These comments and the accompanying responses are available for public review at the White River Field Office in Meeker, CO.

Decisions enabling establishment of the Wolf Creek and Coyote Basin Ferret Management Areas (Maps 1, 2, and 3) and conditioned reintroduction of black-footed ferret in the White River Resource Area were approved through the Record of Decision for the White River Resource Management Plan in July 1997. The White River RMP forms the foundation for ferret



MAP 2
WOLF CREEK FERRET MANAGEMENT
AREA WITH LANDSTATUS

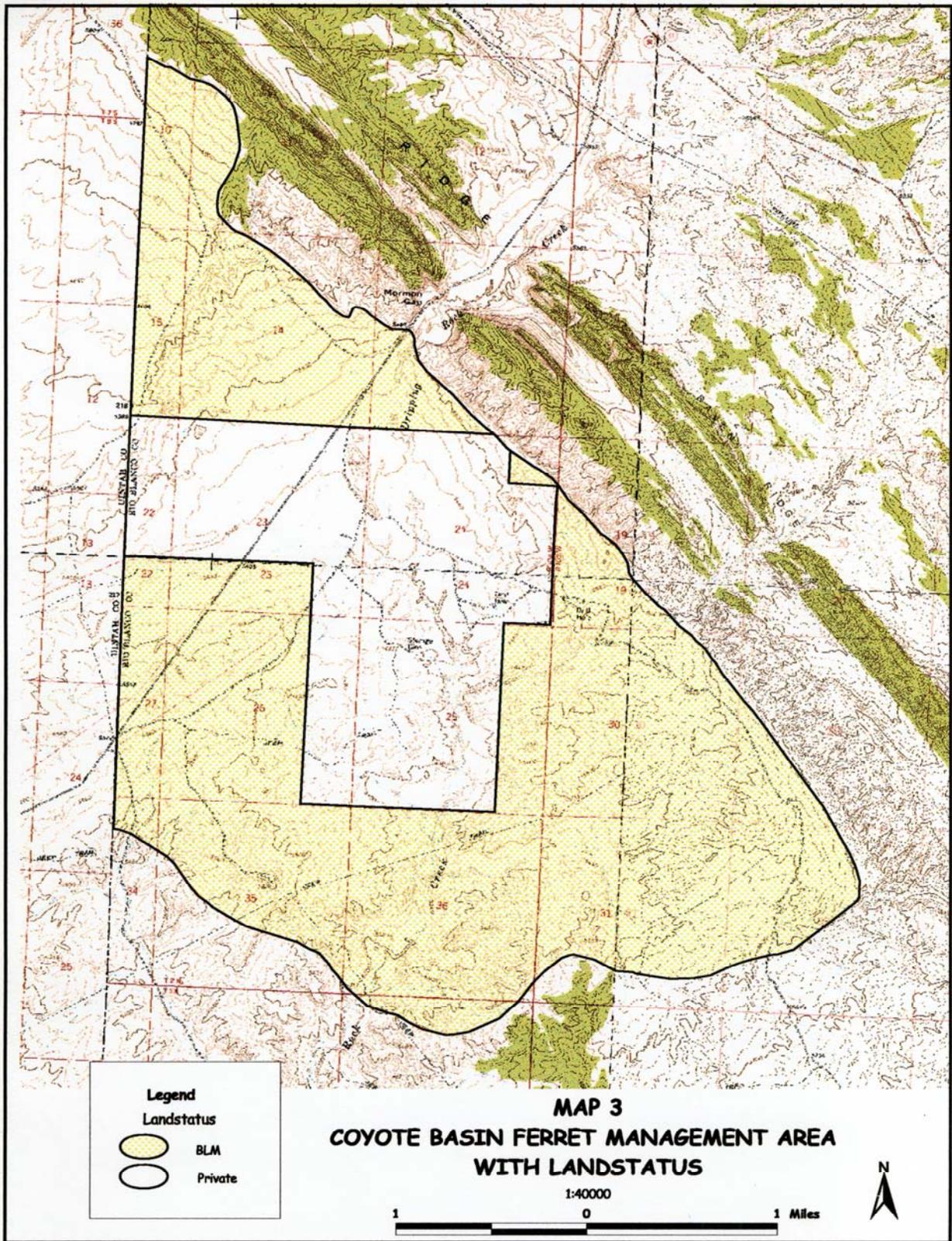
Legend

Landstatus

	BLM
	Private
	State

1:112000





reintroduction efforts in this Resource Area, identifying areas best suited for accommodating recovery actions and supporting the formation of a work group to shape and establish subsequent ferret management practices in a multiple use context. This Reintroduction and Management Plan implements those decisions issued in the RMP (see Attachment C). The RMP requires no modification to implement these activities, since this plan is fully consistent with the RMP, the Final NEP Rule, and Colorado House Bill 00-1314 (below).

Colorado House Bill 00-1314 and Colorado Revised Statute 33-2-105.6 (Attachment B)

The Colorado General Assembly conditionally approved the reintroduction of black-footed ferret into the State through this legislation and statute on April 18, 2000 . This bill requires that ferret reintroduction activities be conducted in a manner consistent with the approach used in the Little Snake Resource Area Cooperative Management Plan, dated June 1995. It calls for the recovery cooperators to provide regular updates to the local community on the status of reintroduction activities and requires that representatives of local government and affected interests be involved in the resolution of issues that may arise during the reintroduction effort. The bill directs CDOW to submit annual reports to the Colorado Congress detailing any instance where black-footed ferret recovery impairs the use of private land or beneficial use of water existing at the time of such reintroduction. It further requires CDOW to enforce the provisions of the cooperative management plan and relocate any ferrets that move outside the experimental population boundaries.

Wolf Creek Work Group

The BLM and CDOW conducted a public meeting in Rangely, CO in late February 2000 to introduce the concepts of ferret reintroduction developed in the Little Snake and Coyote Basin Management Plans and their applicability to potential reintroduction efforts in Management Areas designated in the 1997 White River Resource Area RMP (i.e., Wolf Creek and Coyote Basin, CO). This meeting was attended by 8 persons, 5 of which agreed to form the core work group charged with developing a land user-based reintroduction and management plan for the BLM’s White River Resource Area. Over the course of plan development, additional members became involved with the work group and the input of landowners, livestock permittees, oil and gas operators, and utility companies directly associated with the Management Areas was solicited. The Wolf Creek Work Group met on a weekly basis from early April to July 2000 and bi-weekly from early March 2001 to present.

Core Members of the Wolf Creek Work Group

Name	Affiliation
Nancy MacIntosh	(formerly) Chevron, USA
Bill Mitchem	Public-at-large
Scott Wanstedt	Blue Mountain Energy

Keith Stewart	White River Land Users
Jim DeWitt	White River Land Users
Ed Hollowed	BLM White River Field Office
Jeff Comstock	Moffat County Natural Resource Department
Gene Byrne	CDOW Wildlife Biologist
Terry Wygant	CDOW District Wildlife Manager
Scott Winkler	CDOW District Wildlife Manager

A number of persons expressing interest in, or likely to be directly affected by implementation of this plan, were unable to participate on a regular basis with the WCWG. The BLM contacted the following persons individually once the concepts of the plan had been formed. During these phone calls or personal meetings, the management guidelines and concepts were explained and/or pertinent portions of the plan were offered for review.

Don Davis	Rio Blanco County Commissioner
Bud Stanley	Yampa Valley Electric, Steamboat Springs
Bob Kissling	Moon Lake Electric, Rangely
Minford Beard	Three Springs Ranch
Phil George	Cross Mountain Ranch
Beverly Rave	Colorado State Land Board, Craig
Albert Villard	Villard Ranch
Phil Bethel	Landowner, Elk Springs
Mike Lopez	Oscar Wyatt Ranches
Erin Robertson	Center for Native Ecosystems, Boulder
Pete Kolbenschlag	Colorado Environmental Coalition, Grand Junction
Rex Tuttle	Tuttle ranch
Larry Lyster	AG Andrikopoulos Resources, Inc.; oil and gas operator, Craig
Gerald Hayes	Rio Mesa Resources, Inc (oil and gas producer), Rangely
Earl Fix	Grand Valley Resources (oil and gas producer), Rangely
Gary Hinaman	Argali Exploration Co. (oil and gas producer), Rangely
Jeff Roedell	Chevron U.S.A, Rangely Weber Sand Unit, Rangely
Don Sellers	Chevron U.S.A., Houston
Brent Marchent	Equity Oil Company, Cody, WY
Ron Millet	Bonneville Fuels Corporation, Denver
Mark and Tammy Dunker	Massadona Tavern and Steak House
Burt Clements	Moffat County Land Use Board
Ann Franklin	Moffat County Extension Service

THE WOLF CREEK AND COYOTE BASIN MANAGEMENT AREAS

Description of the Ferret Management Areas

The Wolf Creek and Coyote Basin ferret management areas were first described in preparation for their analysis in the White River Resource Management Plan. The areas were selected in consideration of current land use practices, apparent potential for mineral development, suitability of prairie dog resources as ferret habitat, and land ownership pattern. These two areas were approved for further consideration as ferret reintroduction areas pending final ferret habitat suitability analysis and the successful development of a cooperative management plan (see RMP excerpts, Attachment C).

Among those areas inhabited by prairie dogs in this Resource Area, the lower Wolf Creek watershed stood out as the most desirable candidate for ferret reintroduction. Composed primarily of federal land (Table 1), this 81 square mile area encompasses nearly half the prairie dog habitat on BLM lands within the Resource Area, has little ongoing or prospective mineral development activity, and is part of a large complex of prairie dog habitat that extends west into Utah, including the site selected by Utah as their primary ferret reintroduction area (see Map 4). The Wolf Creek MA lies predominantly in southwestern Moffat County, about 18 miles northeast of Rangely, CO (Map 1); about 10% of the MA is located in northwest Rio Blanco County. U.S. Highway 40 crosses the northern portion of the MA between Massadona and Elk Springs, CO.

The Coyote Basin management area was established under somewhat different criteria. This area was intended to complement ferret recovery efforts in Utah; providing a logical biologically defined reintroduction site and prompting the development of land management guidelines for animals that would invariably disperse to neighboring prairie dog towns in Colorado. Private lands comprise a much higher fraction of the land base in Coyote Basin (Table 1), but land use, including mineral development, is very similar to that of the Wolf Creek area. This MA, about 11 miles west-northwest of Rangely, encompasses about 10 square miles in extreme western Rio Blanco County and is contiguous with Uintah County, Utah (Map 1).

Table 1. Distribution and Extent of Prairie Dog Habitat in the Wolf Creek and Coyote Basin Management Areas

Management Area	Land Status	Surface Ownership within Management Area		Occupied Prairie Dog Habitat ^a		Total Prairie Dog Habitat ^b	
		acres	%	acres	%	acres	%
Coyote Basin	BLM	4,863	72.0	517	40	982	49
	Private	1,877	28.0	789	60	1,039	51
	Total	6,740		1,306		2,021	
Wolf Creek	BLM	44,764	86.0	17,022	88.4	30,554	90.2
	Private	3,948	7.6	838	4.3	1,216	3.6
	Colorado State Land Board	3,325	6.4	1,393	7.2	2,103	6.2
	Total	52,038		19,253		33,873	

^a based on more current survey efforts

^b habitat showing evidence of past and current use, cumulatively mapped since late-1983

Physical, Biological, and Social Resources Associated with the Wolf Creek and Coyote Basin Management Areas

CLIMATE

Both MAs are semiarid in climate, characterized by low annual precipitation, extreme evaporation rates, and large diurnal temperature changes. Average annual precipitation in the center of the lower Wolf Creek watershed is approximately 9 inches. Slightly more than half of the annual precipitation comes from scattered spring and late summer thunderstorms. Limited data indicates that evaporation far exceeds precipitation, with the driest conditions occurring in midsummer. Effective precipitation in the Wolf Creek MA is decreased further due to a preponderance of clayey Mancos soils that impede infiltration. Average annual snowfall is 36 inches. Daily average summer temperatures range from 45°F to 85°F; winter temperatures generally range from 5°F to 35°F.

TOPOGRAPHY

The Wolf Creek MA is bordered on the south by Coal Ridge; the eastern and northern borders are formed by Pinyon Ridge and the uplift formed along Elk Springs Ridge west to the Skull Creek Rim, respectively (Map 2). The west boundary of the MA was established at Moffat County road #95C. Approximately 75 percent of the lower watershed is made up of Mancos Shale or sediments deposited by weathering of Mancos Shale. The area consists of steep escarpments, rolling hills, and gently sloping valleys typically cut by deeply incised drainages. Elevations range from 5,460 feet at the mouth of Wolf Creek to 6200 feet in the extreme northeastern portion of the MA along Elk Springs Ridge. Slopes throughout the watershed tend to be steeper near the borders and gradually flatten toward the central portion of the basin. The watershed is characterized by a parallel drainage pattern tending toward the south.

The Coyote Basin MA is bordered on the north by Raven Ridge and to the east and south by heavily dissected Wyoming sagebrush and pinyon-juniper benches that descend steeply to the White River (Map 3). This Management Area borders the State of Utah on the west and is contiguous with occupied prairie dog habitat associated with their Coyote Basin Primary Management Zone. The MA consists primarily of broad sagebrush and grassland flats and terraces interrupted occasionally by low ridges. Rolling sagebrush hills extend to the east and south. The entire area drains to the south via the ephemeral Dripping Rock Creek. Elevations range from 5350 feet along the southern boundary to 5750 feet in its northwest corner.

SOILS

The finely textured upland soils found in the Wolf Creek MA were formed in place from gypiferous Mancos Shale and are characterized by having a high susceptibility to erosion, slow to moderate permeability, and are moderately to strongly affected by salt and alkali (approximately three percent salt by weight). The valleys and drainages throughout the MA exhibit moderate to severe gullyng and a network of incised channels with near vertical walls

extend up most the major stream courses and their larger tributaries. Gullies may be up to 50 feet deep and 100 feet wide.

Sagebrush terraces and pinyon-juniper woodlands occur on the periphery of the watershed in areas where the soil developed on sandstone parent material.

The Coyote Basin MA is composed primarily of fine sandy loam soils derived from sandstone and shale. These deep, calcareous soils display moderate to moderately slow permeability and have a slight to moderate erosion potential.

SURFACE HYDROLOGY (refer to Maps 2 and 3)

The Wolf Creek MA encompasses the lower main stem of Wolf Creek and four main tributaries: Coal Creek, East Fork Wolf, Middle Fork Wolf, and Divide Creek, all of which are intermittent streams.

The MA is comprised of relatively low lying, semiarid lands typically yielding small amounts of water per year, usually less than one inch per square mile. Peak runoff generally occurs in late May and early June and is caused primarily by melting of the higher elevation snowpack. Early season runoff from March through May is generally from lower elevation snowmelt.

Since the late 1930's, about 100 water control structures have been constructed in the MA, primarily in an effort to control erosion of these fragile Mancos soils and reduce subsequent salinity and sediment contributions to the White and Colorado River systems. The Rio Blanco Water Conservancy District, operators of Kenney Reservoir upstream of Rangely, have proposed installing an additional 50 or so structures in the MA over the next few years.

The Coyote Basin MA is centered on the lower end of a large ephemeral drainage (Dripping Rock Creek). Runoff patterns are essentially identical to those discussed for the Wolf Creek MA. A single water detention structure is located on private lands.

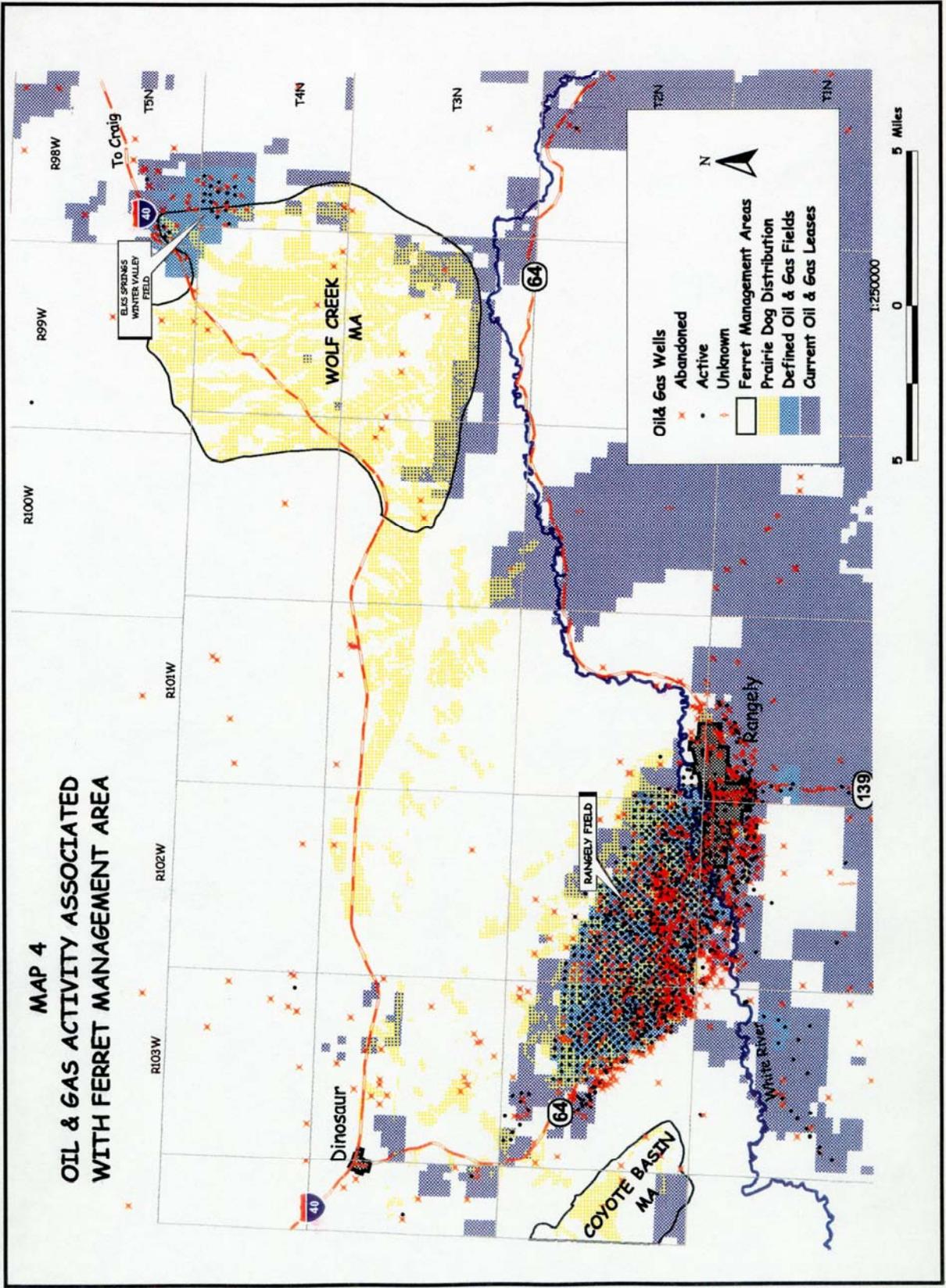
MINERAL RESOURCES

Oil and Gas Development (refer to Map 4)

The majority of lands in the White River Resource Area are classified as prospectively valuable for oil and gas. Although both the Wolf Creek and Coyote Basin MAs are considered to have a high potential for oil and gas development, a cumulative total of 43 wells have been drilled in the MAs since 1924; 34 have since been plugged and abandoned. Most of this Resource Area's oil and gas development over the last 20 years has been outside of these MAs. Oil and gas development has occurred primarily in the Coal Oil Basin north and west of Rangely, and in the gas fields south of Rangely, the White River Dome, and the Piceance Basin. It is anticipated that future oil and gas development will continue to be associated with these areas.

The MAs currently encompass 17 active federal oil and gas leases that account for approximately 8,027 acres (or about 13 % of the MAs). Of the 1,175 wells that have been drilled in the White

**MAP 4
OIL & GAS ACTIVITY ASSOCIATED
WITH FERRET MANAGEMENT AREA**



River Resource Area since 1980, 10 wells have been drilled and completed in the MAs--8 of which have been plugged and abandoned.

Two established oil and gas fields are associated with the MAs are within the larger prairie dog habitat complex associated with this ferret recovery effort. The extreme northeast corner of the Wolf Creek MA includes about 1,967 acres of the 3,152-acre Elk Springs-Winter Valley Field. This field involves about 22 active and 32 abandoned oil and gas wells. That portion of the MA within this field includes 9 active wells and less than 370 acres of active prairie dog towns.

A small number of active oil and gas wells occur to the west of the Wolf Creek MA along the habitat corridor extending into Utah. The notable exception to this pattern is the 30,000-acre Coal Oil Basin that encompasses the Rangely Field—Colorado's largest oil field. First discovered in 1933, active development of the Field was prompted by war demand in 1944. The field was fully developed at 40-acre spacing with 478 wells by 1949. Beginning in 1963, Chevron began infill drilling to improve oil recovery and by 1984, a majority of the field had been drilled on 20-acre spacing. Chevron maintains about 700 producing and gas/water injection wells in the field, a total that does not include an additional 200 inactive and abandoned wells. Several large facilities support gas and water injection, recovery, and transport processes, including a water plant, CO₂ plant, and an oil collection facility. Over 1000 shallow Mancos wells have also been drilled in the Rangely Field, about 450 of which remain active and are operated by a host of independent oil producers.

The Rangely Field is mature, with no new wells drilled since 1991, but there is considerable maintenance activity consisting primarily of well workovers and pipeline repairs/replacements. Chevron is continuing to expand their tertiary recovery process into less active portions of the field, which requires the reentering of existing wells and installation of new pipelines. In an effort to locate new sources of oil within the field, a limited-scale 3-D seismic effort was undertaken by Chevron early in 2001. Depending on the results of this pilot program, further seismic exploration may occur.

Chevron contracted exhaustive mapping and inventory effort in Coal Oil Basin to determine the extent and distribution of prairie dogs and potential ferret occupation in 1985-1988. At any given time, prairie dogs occupy about 7,000 acres of Coal Oil Basin.

Coal Development (refer to Map 5)

Federal lands which meet minimum standards for recoverable coal deposits are termed Known Recoverable Coal Resource Areas (KRCRA). There are two KRCRAs identified in the White River Resource Area, the Lower White River KRCRA located in the vicinity of the town of Rangely, Colorado, and the Danforth KRCRA located north of Meeker, Colorado. The Wolf Creek MA is located northeast of the Lower White River KRCRA and Coyote Basin is located southwest of this KRCRA. Future coal leasing and development would be limited to the KRCRAs as identified in the White River Resource Area Resource Management Plan.

Economical coal reserves are not known to occur in either MA. The nearest operating mine is the Deserado Mine located in the Lower White River KRCRA. This underground mine encompasses 8,146 acres of coal leases, with an additional 2,683 acres leased as a right-of-way for coal refuse disposal. The northeast corner of the lease boundary is about 3 miles southwest of the Wolf Creek MA. Since the coal bearing formations targeted by this mine are absent north of Coal Ridge, there is no reasonable opportunity for mine expansion north and east into the MA.

The Deserado Mine is an underground coal facility comprised of the portal facilities, overland conveyor system, refuse disposal facilities, and railroad to the Bonanza Power Station in Utah. These facilities are located approximately 7.5 miles southwest of the Wolf Creek Management Area. Facility construction began in 1982 with projected operation until about 2030. Approximately 760 acres of land could be disturbed during the life of the mine excluding the railroad. Construction of another generating facility or expanding the capacity or longevity of the Bonanza Station could be expected to extend the life of the mine and include the development of new reserves elsewhere in the area. Surveys in the mid-1980s of the various mine leases and rights-of-way found about 1,300 acres of sagebrush and grassland habitats that showed evidence of past use by prairie dogs. Likely due to the prevalence of shrub cover and interspersed pinyon-juniper woodland, both the occupied extent of, and animal density on, these habitats tends to be notably low. Mapping of active prairie dog towns within the mine area has varied between 150 and 250 acres.

During the late 70's and early 80's, a site approximately four miles southwest of the Wolf Creek Management Area, was evaluated as a site for an additional coal fired power station. The potential for future development of a power station at Hatch Flats still exists as area power demands change.

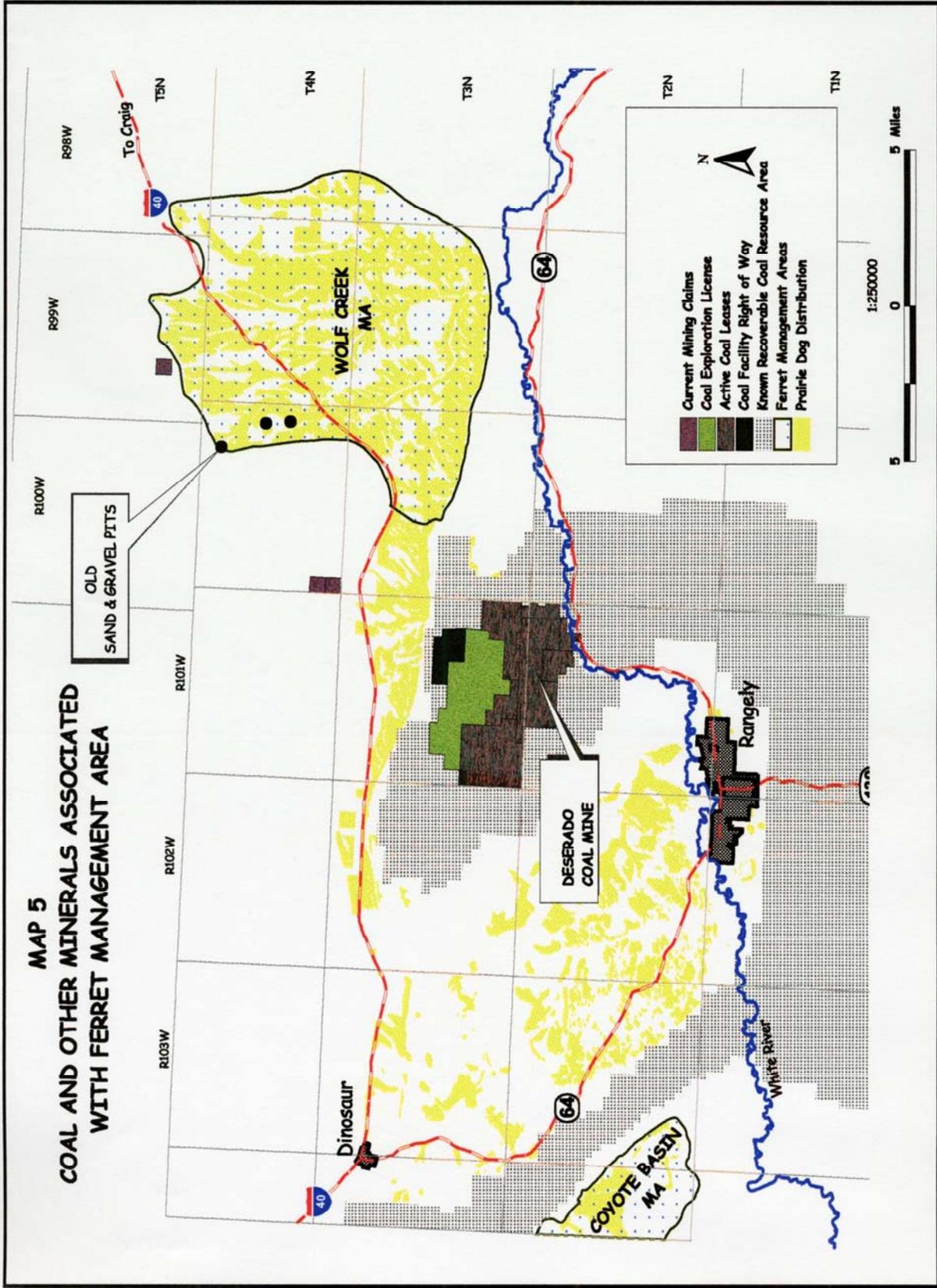
Salable Minerals (refer to Map 5)

Alluvium and colluvium deposits of sand and gravel exist within the MAs, but they currently support no active sand and gravel operations. Deposits south of US Highway 40 tend to be thin and unusable. Gravel has been excavated for highway construction and county road maintenance north of US 40. These areas are located on a terrace type of pediment deposits and contain additional material that may be used in the future. Future resurfacing US 40 may lead to the re-opening of the abandoned pits north of the highway. Existing gravel pit locations or sites with sand and gravel deposits appear to have no potential to support prairie dog habitat

Locatable Minerals (refer to Map 5)

Rock formations in the area are of sedimentary deposits and are not considered a likely source of economically significant locatable minerals. In response to the 1973 energy crisis, exploration for uranium and associated minerals peaked in the late 1970's and early 1980's in northwestern Colorado. During this time several mining claims for uranium were located around the perimeter of the Wolf Creek MA. All of these claims have since been abandoned and are no longer valid.

**MAP 5
COAL AND OTHER MINERALS ASSOCIATED
WITH FERRET MANAGEMENT AREA**



There are no mining claims within either MA. Of the 9 valid mining claims in the Resource Area, 2 are located on the northern perimeter of the Wolf Creek MA. These claims were filed by an individual under the small miner claims and are for minerals other than uranium. Given the current market, it is unlikely these claims will be developed into active commercial mines.

RIGHTS OF WAY

Several ROWs parallel the U.S. Highway 40 corridor within the Wolf Creek MA, including telephone communications, a 7.2kV single-phase overhead powerline, and an interstate oil pipeline. A number of small (3-4") buried oil and gas gathering or distribution pipelines, associated with the Winter Valley/Elk Springs field, lie on the periphery of the Wolf Creek MA. Offset about 0.5 mile to the south, a wooden structured 138-kV (Hayden-Vernal) and a steel lattice structured 345-kV (Craig-Bonanza) electric transmission lines operated by the Western Area Power Authority also parallel the highway.

Two large interstate gas pipelines lie immediately adjacent to and parallel with Rio Blanco County Road 21 (Bonanza road) in the Coyote Basin MA. An electric train that delivers coal to the Bonanza power station from the Deserado Mine traverses the northwest corner of the MA.

VEGETATION

The majority of the native plant communities in the MAs make their main growth from mid April to the end of June, primarily on stored winter moisture. Cool season plants are favored because of the June droughts and the best growth is made following spring thaw and again in early fall following late summer rains. The area is generally dry from mid June to mid August. There is sometimes fall growth from late summer rain in August and September. The average annual moisture deficit is high, more than 50 inches. Moisture that comes during hot summer weather does little for plant growth, except for late in the summer.

Salt-desert shrub community: The saltbush association occurs below 6,000 feet and is found on lower elevation foothill slopes, semiarid drainage bottoms, and alluvial deposits. Saltbush occupies heavy, fine textured soils that are less saline/alkaline than those which normally support greasewood. Saltbush communities are characterized by low growing widely spaced plants that vary in species composition and density. These communities range from pure stands of an individual saltbush species to intermixed communities of many species.

The salt desert community occupies about 19,000 acres, or about 35% of the Wolf Creek MA and is generally located on the shallow Mancos Shale-derived soils in the center of the watershed. The community consists of salt-tolerant semidesert shrubs, grasses, and forbs. Mat saltbush occurs on the very shallow soils on ridgetops, then grades into shadscale on the moderately deep soils on sideslopes. Dominant shrubs include Gardner's saltbush, mat saltbush, shadscale, bud sagebrush, big sagebrush and winterfat. Associated species are Salina and Colorado wildryes, bottlebrush squirreltail, western wheatgrass, and cheatgrass. Overall basal

cover in the saltbush type averages 15 percent, with the shrub component making up most of the cover percentage.

Riparian Vegetation: Riparian vegetation associated with lotic systems within the Wolf Creek MA is extremely limited, being confined to small perennial spring sources and occurring sporadically along large intermittent channels. Riparian vegetation communities are typically facultative in nature and are dominated by basin big sagebrush and various species of rabbitbrush and black greasewood. Various sedge and rushes dominate the few areas capable of supporting obligate riparian forms. Several earthen dam structures, constructed primarily for livestock water, support small bulrush and cattail associations. Divide Creek Detention Dam is the only site with notable amounts (about 2 acres) of obligate wetland growth, including bulrush, willow, and cottonwood.

There is no riparian vegetation in the Coyote Basin MA.

Sagebrush Community: The sagebrush type occupies about 9700 acres or about 20% of the Wolf Creek MA. Basin big sagebrush is widely distributed in the bottom of incised drainages and basin swales, with larger expanses of Wyoming big sagebrush in the eastern third of the MA, particularly along the west flank of Pinyon Ridge. Major plant species associated with sagebrush are western wheatgrass, Salina and Colorado wildrye, Indian ricegrass, needle and thread, Sandberg's bluegrass, and galleta.

Big sagebrush, with inclusions of greasewood, winterfat and shadscale saltbush, is the dominant shrub component (95%) of vegetation communities in the Coyote Basin MA. Good condition shrub understories, or those areas that are now lacking a brush component (e.g., fire, brush clearing), include galleta, Indian ricegrass, bottlebrush squirreltail and western wheatgrass, however, much of Coyote Basin's herbaceous community is currently dominated by cheatgrass and annual forbs.

Grassland Community: Grassland communities occupy about 15,800 acres, or 30% of the Wolf Creek MA. These communities occupy valley bottoms and terraces with deep, poorly drained, alluvial saline/alkaline soils. These stands are highly variable in composition and condition. At potential, the associations consist of western wheatgrass, Sandberg bluegrass, bottlebrush squirreltail, and Salina wildrye, but much is presently dominated by annual grasses and forbs and hosts variable density stands of black greasewood.

Pinyon-Juniper Woodland: Small isolated stands of Utah juniper form minor inclusions within the interior of the two MAs. The northeast corner of the Wolf Creek MA supports up to 1900 acres of pinyon-juniper woodland (about 5% of MA) through which prairie dogs are distributed sparingly in sagebrush and bottomland habitats. These stands generally include understories of Wyoming big and/or black sagebrush with prairie junegrass, beardless bluebunch wheatgrass, Indian ricegrass, and galleta.

Barren Lands: Barren rock, erosion pavements, or rock outcrops that have no significant amount of vegetation comprise about 10% of the Wolf Creek MA and about 5% of the Coyote Basin MA and include channel incises and steeper alkaline slopes scattered throughout the areas.

Threatened /Endangered, Rare and Sensitive Plants and Remnant Vegetation Associations: Two Colorado BLM sensitive plant species occur within the Coyote Basin Management Area, the Duchesne milkvetch (*Astragalus duchesnensis*) and the narrowstem gilia (*Gilia stenothysra*). The Duchesne milkvetch occurs within the Wyoming sagebrush communities that occupy the poorly developed Green River shale soils within the Dripping Rock drainage west of Raven Ridge. Within this same area, narrowstem gilia occurs on a few small sandstone outcrops of the Uinta Formation. Both plants occupy shallow soil habitats overlying consolidated shale or sandstone that are generally considered unsuitable for prairie dog habitation.

One Colorado BLM sensitive plant species, the debris milkvetch (*Astragalus detritalis*), occurs within the Wolf Creek Management Area. This plant occupies the alluvial terraces that are within a mile-wide corridor of U.S. 40 between Massadona to the west and Wolf Creek to the east. Nearly all of the known populations of the debris milkvetch occur immediately south of Hwy 40 on terraces and adjoining slopes covered with small cobbles. Prairie dog colonies in this area adjoin some of the milkvetch populations, but only a few outlying burrows occur within the bounds of the population. Debris milkvetch habitat appears to be confined to areas outside those preferred by prairie dogs.

LIVESTOCK MANAGEMENT (refer to Map 6)

All lands associated with the MAs are leased for livestock grazing. These areas are used principally during the winter and spring use periods by both sheep and cattle (see following summary).

Livestock Grazing Permits and Grazing Use within the Ferret Management Areas

ALLOTMENT NUMBER	ALLOTMENT NAME	GRAZING PERMIT HOLDER	KIND OF LIVESTOCK	SEASON OF USE
Coyote Basin Management Area				
06310	Bonanza ¹	Morapos Sheep Company	Sheep	Dec 1-May 5
06311	State Line ¹	Yellow Jacket Ranch	Sheep	Dec 1-May 5
06312	Raven Ridge	J.P. Sheep Company	Sheep	Nov 20-Feb 28
Wolf Creek Management Area				
06323	Wolf Creek	Three Springs Ranch	Cattle	Apr 20-May 25
06324	Massadona	Three Springs Ranch	Cattle	Dec 1-Apr 20
06326	Elk Springs	Halbert Tuttle	Sheep	Oct 25-Jun 10
06330	Upper Coal Creek	Cross Mountain Ranch	Sheep	Jan 22-Apr 14
06332	Horse Draw	Villard Ranch	Sheep	Dec 9-Feb 20
06332	Horse Draw	Three Springs Ranch	Cattle	Jan 4-Apr 20
06333	Pinyon Ridge ²	Oscar S. Wyatt, Jr.	Cattle	Apr 15-May 15 or Nov 1-Jan 30
06334	Coal Reef ²	Oscar S. Wyatt, Jr.	Cattle	Apr 15-May 15 or Nov 5-Jan 15

¹ Grazing administration for this allotment is handled by the Vernal, UT Field Office through an inter-district agreement

² Grazing use on this allotment occurs one year of three in the spring, with late fall/winter use the remaining two years.

RECREATION

The major form of recreation on the watershed is big and small game hunting. Habitat and seasonal big game distribution orients the majority of big game hunting within the MAs to pronghorn and later season cow elk and deer. Hunting activity is moderated by the limited number of licenses issued for pronghorn (2001 season: 36 buck, 51 doe from mid-August through early October) and cow elk (2001 season: 250 cow in December) in Game Management Unit 10.

Small game hunting is limited almost exclusively to cottontail rabbit during the later fall and winter months and prairie dog shooting from March through early July (see Prairie Dog Shooting section on page 29). The very small number of sage grouse occupying the Wolf Creek MA during the fall months provides virtually no bird hunting opportunity.

Fishing opportunity within the MAs is limited to the 1.5-acre Peterson Draw Reservoir and, until recently, Divide Creek Detention Dam. CDOW stocks Peterson Draw annually with rainbow trout. The 4-acre Divide Creek Reservoir has historically been stocked with trout, catfish, and bullhead, but recent drought and cumulative sedimentation has dramatically reduced the current fishery potential at this site. This reservoir has been dry since the summer of 2000.

WILDERNESS, ACECS

BLM's Skull Creek/Willow Creek/Bull Canyon wilderness study area (WSA) complex lies about 5 miles west of the Wolf Creek MA and 8 miles north of the Coyote Basin MA. These WSAs have been recommended to Congress for designation as Wilderness Areas.

The Raven Ridge Area of Critical Environmental Concern lies on the northern periphery of the Coyote Basin MA. This area was established to protect populations of 2 plants candidate for Endangered Species Act listing (White River and Graham's penstemon) and 4 BLM sensitive plant species.

VISUAL RESOURCE MANAGEMENT

The Coyote Basin and south half of the Wolf Creek MA are classified as Visual Resource Management Class III, where changes to landscape contrasts caused by a management activity can be evident, but should remain subordinate to the existing landscape. The north half of the Wolf Creek MA is a VRM Class IV where major modifications can dominate the landscape, although attempts should be made to minimize contrast.

CULTURAL RESOURCES

Cultural site potential is considered low to moderate across the MAs. Cultural features are mainly represented by widely scattered sites and isolates along the main valley bottoms and near water sources. Estimates place site density at less than one eligible site per section.

Several small Class III cultural resource inventories have been conducted within the area. These inventories have been both areal and linear in nature. A total of 34 cultural resources have been located and recorded. Sites are located in a variety of edaphic/topographic environments, including ridgetops, benches, bajadas and valley bottoms. Sites include prehistoric (open camp, open lithic and sheltered) and historic components. The prehistoric sites appear to coincide with Archaic, Fremont and Protohistoric cultural groups.

WILDLIFE RESOURCES

(OTHER THAN BLACK-FOOTED FERRET AND PRAIRIE DOG)

Big game

The MAs are used throughout the year by 150 or more pronghorn antelope. Pronghorn distribution and abundance is subject to wide fluctuation, but greatest use of the MAs typically occurs during the winter through late spring months. Late summer and fall use is often sparing due to the lack of persistent water

Mule deer use is confined primarily to areas in close proximity to pinyon-juniper woodlands on the outer perimeter of the MAs and is overwhelmingly winter-use oriented. Concentrated use areas are not prevalent, but particularly in spring, larger groups of transient deer seek emerging annual growth, particularly along the margins of the MAs.

Both MAs are used by elk during the winter and spring months, but the WCMA in particular, is used heavily by elk during this period. Several hundred elk consistently use Wolf Creek's saltbush and sagebrush dominated communities from late November through April, generally exploiting herbaceous and woody forage produced on the rolling hillsides from woodlands on the northern, eastern and southern perimeter of the MA. There are sufficient natural sources of water along Pinyon Ridge to sustain low-density summer and calving use along the northern and eastern margins of the MA, but essentially no summer use takes place in areas potentially frequented by ferret.

Sage Grouse

Sage grouse occupy sagebrush habitat throughout the lower Wolf Creek watershed on a year round basis. Summer use habitat within the MA is considered suboptimal and its potential severely limited by soil factors, vegetation, and precipitation. Two strutting grounds are known to be active within the WCMA, but relatively few sage grouse are thought to breed, nest and brood in the lower Wolf Creek watershed. Although little information is available from which to base estimates of population size or seasonal distribution and use, recent strutting ground counts and previous experience suggests that no more than 100 birds occupy the WCMA during the spring through fall months. In contrast, several hundred birds have been seen wintering in the WCMA. The source of these wintering birds is not well established, but it is likely that they are associated with populations in upper Wolf Creek.

Raptors

A number of raptors, including several sensitive species, inhabit the MAs on a yearlong or seasonal basis. The most prominent raptor nesting in the MAs is the ferruginous hawk. Up to 12 nesting territories have been delineated within the MAs, involving a minimum 35 natural nests and 12 artificial nest platforms. Although no widespread efforts to determine the extent of burrowing owl nest activity in these areas have been conducted, project-specific surveys have revealed at least 5 nest attempts. Nests of other raptors within the interior of the MA are scarce, but at least 1 great-horned owl and 2 golden eagle sites area have been located on the walls of channel incises or large powerline structures in the WCMA, and a small number of northern harrier undoubtedly nest in emergent vegetation or sagebrush swales.

The rock outcrops and woodlands around the periphery of the MAs support at least 6 golden eagle nest complexes, and 3 red-tailed hawk, 1 long-eared owl and 1 prairie falcon nest sites.

Red-tailed hawk, golden eagle, prairie falcon, rough-legged hawk, great horned owl and bald eagle can commonly be found in either MA during the winter months.

Threatened and Endangered Animals

Bald eagles regularly forage across the saltbush/sagebrush types within the MAs, particularly during the later winter period from November through March. Off -river foraging activities are dispersed and opportunistic; no concentrated or preferred use areas have been identified in the vicinity of the MAs.

Both MAs are drained by the White River. Colorado pike-minnow are confined to the White River below Taylor Draw dam (Kenney Reservoir), although critical habitat designations involve the river's 100-year floodplain upstream to Rio Blanco Lake. Besides it's seasonal value to the pike-minnow, the White River is perhaps most valuable as a flow contributor (i.e., flow volume and periodicity) to downstream fisheries in the Green River which supports endangered populations of pike-minnow, razorback sucker, humpback chub and bonytail. Larger tributary streams, such as the White, are thought to exert a strong influence on the reproductive success of endemic fish in the Green River.

BLACK-FOOTED FERRET POPULATIONS AND HABITAT

Historic Range of Black-footed Ferret

The historic range of black-footed ferret refers to the original distribution of ferret based on those records currently accepted by the scientific community. Physical evidence of ferrets (i.e., skin, skull) was collected inside the Northwest Colorado/Northeast Utah Experimental Population Area from 4 locations in Moffat County and 2 locations in Rio Blanco County from 1910-1942 (Attachment E). Physical evidence has also been collected within the Experimental Population Area in Sweetwater County, Wyoming. Although no physical evidence of ferrets has been collected from within the Wolf Creek or Coyote Basin Management Areas specifically, because

of their obligate association with prairie dogs, and based on the historical extent of prairie dogs in these counties and the lack of effective barriers to ferret dispersal within the counties at the time, there is little reason to suspect that ferrets were not well distributed throughout occupied prairie dog habitat in Moffat and Rio Blanco Counties.

Ferret Inventory Efforts

The USFWS, BLM, CDOW, and a number of energy development companies conducted extensive black-footed ferret surveys from 1981 through 1993. Although numerous sightings of ferret were reported from suitable habitat in the White River Resource Area during this period, none of these searches confirmed ferret occupation. However, these efforts were instrumental in providing the USFWS information necessary to make the determination that no wild ferret population existed in northwest Colorado, and ultimately, allowing present consideration for reintroduction and recovery activity.

Ferret Habitat Capacity

The capacity of any given area to support ferrets is contingent on the extent and abundance of prairie dogs. This capacity is estimated by calculating the density of active prairie dog burrow entrances on only higher quality prairie dog habitat (i.e., prairie dog towns with 25 or more active burrow entrances per hectare) and applying a relationship between burrow counts and prairie dog populations. This prairie dog population index is then expressed in terms of a Ferret Family Rating (FFR), which represents the number of females with young the area's prairie dog population could be expected to support. A FFR rating of 1.0 is equivalent to 1.5 breeding age adults. Ferret family ratings for the Wolf Creek MA have varied in direct response to prairie dog populations, ranging from the current 33 FFR to a high of nearly 58 FFR in 1993-94. Recent prairie dog inventory efforts in the Coyote Basin MA have yielded FFRs of 3 to 9, but these calculations have included private lands, which tend to support more than half the prairie dogs in the MA.

Ferret Disease surveillance

(Excerpt from unpublished report from CDOW Wildlife Veterinarian)

As part of the black-footed ferret reintroduction protocol, Colorado Division of Wildlife monitored serological evidence of disease epidemics in carnivores at the ferret reintroduction site: the Wolf Creek Management Area (WCMA), Colorado. Nearly 60 coyotes (*Canis latrans*) were collected for post-mortem examination and samples collected as described in established protocols since February 2000 via cooperative efforts of Colorado Division of Wildlife, USDA Wildlife Services, and Bureau of Land Management (BLM) personnel. Coyotes were collected using a combination of calling and aerial gunning.

To date, no lesions indicative of active infections with select pathogens (*Francisella tularensis*, *Yersinia pestis*, canine distemper virus) have been noted on gross examinations of carcasses. Initial sampling (February 2000) at WCMA indicated relatively low exposure rates to select pathogens. However, data from a more recent survey indicate a substantial increase in the

proportion of adult coyotes exposed to canine distemper virus (Figure 1): in February 2001, about 79% of the coyotes sampled had serum neutralizing titers $\geq 1:16$. Additional sampling planned for July 2001 should help clarify whether canine distemper virus exposure is ongoing at WCMA by focusing on juveniles and comparing adult and juvenile seropositive rates. In contrast to canine distemper, exposure to plague and tularemia agents appears relatively rare among coyotes sampled from WCMA (Figure 1).

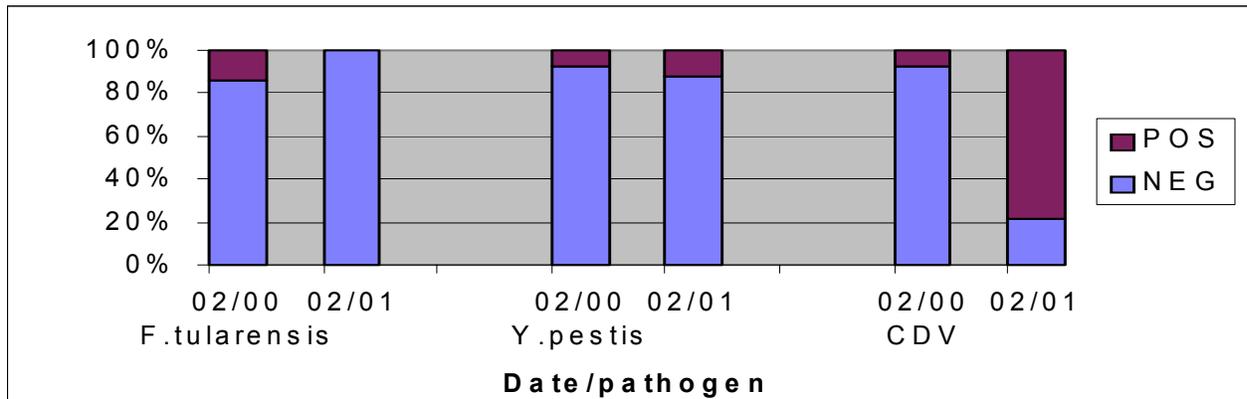


Figure 1. Seroprevalence of presumed tularemia, plague, and canine distemper exposure among coyotes sampled from the Wolf Creek Management Area, Colorado, during February 2000 or February 2001.

The serology results for the July/August 2001 samples showed that only 2 of 18 samples showed antibody reaction to sylvatic plague on cELISA tests, and neither had significant titers (i.e., antibody concentrations) on the more diagnostic PHA tests. The 5 samples showing antibody titers to canine distemper virus were all from adult coyotes (classified as > 2 yrs old in the field). These results were similar to those obtained from the Summer 2000 samples and show no strong evidence of recent plague or canine distemper virus exposure in the sampled coyote population.

WHITE-TAILED PRAIRIE DOG POPULATIONS AND HABITAT

Because black-footed ferrets rely almost entirely on prairie dogs and their burrow systems for food and shelter, prairie dog distribution and abundance are important criteria for evaluating potential ferret habitat. At various times since 1976, BLM, USFWS, and CDOW have mapped prairie dog distribution and evaluated prairie dog abundance in the White River Resource Area. In 1985, BLM mapped all habitats within the Resource Area showing evidence of prairie dog occupation regardless of their current occupancy status. Approximately 60,000 acres of prairie dog habitat is distributed more or less continuously from Pinyon Ridge west along the U.S. 40 corridor to Utah and south through Coal Oil Basin and Coyote Basin into Utah (Map 6). This habitat complex is bordered to the north, south and east by unsuitable habitat and terrain (i.e., pinyon-juniper slopes, steep ridges, and the White River). The complex is free of features that would pose serious impediments to ferret movements to the west and is contiguous with 30,000

acres of prairie dog towns in Utah, including Utah's primary ferret reintroduction site in Coyote Basin. Prairie dog populations to the east and north are effectively isolated from this Colorado/Utah complex by Pinyon Ridge and Elk Springs Ridge (see Map 2). These features rise abruptly (300 to 500 feet) from the floor of the lower Wolf Creek basin and are continuous with the exception of the narrow gap occupied by U.S. Highway 40 at Elk Springs. Rugged terrain and pinyon-juniper woodlands associated with these ridges, and miles of intervening and unoccupied sagebrush/bitterbrush habitat separate this Colorado/Utah complex from 2,000 acres of prairie dogs 5 air-miles to the east in the lower Crooked Wash drainage and, together with the Yampa River, the 78,300-acre prairie dog complex associated with the Little Snake Resource Area's ferret management area, about 15 miles to the northeast.

More recent prairie dog survey efforts have focused primarily on the Wolf Creek and Coyote Basin Management Areas as sites evaluated and approved for ferret recovery activities through the White River Resource Management Plan in 1997. Based on cumulative mapping efforts since the mid-1980s, some 34,000 acres within the Wolf Creek MA and about 2,000 acres in the Coyote Basin MA have, at some time or another, supported prairie dogs. Table 1 details the distribution and extent of prairie dog habitat in the MAs by land ownership. Based on recent work, and recognizing that prairie dog distribution appears to be governed largely by recurring disease and vegetation succession (i.e., fire and subsequent shrub expression), it appears that about half of Wolf Creek MA's potential habitat is normally occupied at any given time. Similarly, habitat currently occupied in the Coyote Basin MA involves about 65% of habitats showing evidence of use since 1985.

Since the earliest mapping and inventory efforts, it is apparent that prairie dog populations in this Resource Area are in constant flux, subject to large, unpredictable, and often rapid fluctuations in abundance and distribution (following Tables 2 and 3). More recent mapping and survey efforts by CDOW and Utah State University (USU)/Utah BLM suggests that the extent of habitat occupied by prairie dogs within the Wolf Creek MA from 1993 through 2001 has remained fairly stable, but estimated abundance varied by 75% between sampling periods. Although there are no longer-term population figures available for Coyote Basin, CO, prairie dog population estimates changed by as much as 164% during the period 1997 to 2000. During a 3-year baseline period between 1982-1984, a study contracted by Western Fuels' found prairie dog densities frequently fluctuated by 50-100% between and among years.

With no substantive change in land use or management within the MAs over the past decade, population indices in the Wolf Creek Management Area indicate that prairie dog populations are currently about 40% lower than those found in 1993/94. Prairie dog population monitoring work by the ExPA group has documented a progressive increase (i.e., near tripling) in prairie dog abundance in the Coyote Basin MA from 1997-2000.

Table 2. Prairie Dog Population Characteristics in the Wolf Creek Management Area

Characteristics	Wolf Creek MA (BLM/FWS)	Wolf Creek MA (CDOW)	Wolf Creek MA (USU/BLM)
Year of Transect Effort	1989-90	1993-94	2000-01
Total area mapped (ha)	11,427 ^a	6,831 ^b	6,810 ^b
Percent of the area sampled	0.4	1.05	0.89
Area of good ferret habitat (>25 active burrows / ha)	4,801	5,955	3,298
Active burrow density/ha	43	49	31
Prairie dog density/ha in good habitat	6.3	7.4	7.6
Prairie dog total on good habitat (ha)	30,102	43,967	25,056
Black-footed ferret family rating	40.0	57.6	32.8

^a based on 1985 mapping effort that included all lands showing evidence of prairie dog occupation, past or present

^b mapping/transect effort delineated only those prairie dog towns active at the time of survey

Table 3. Prairie Dog Population Characteristics in the Coyote Basin Management Area

Characteristics	Coyote Basin, Colorado MA (USU/BLM)	Coyote Basin, Colorado MA (USU/BLM)	Coyote Basin, Colorado MA (USU/BLM)
Year of Transect Effort	1997	1999	2000
Total area mapped (ha) ¹	708	529	529
Percent of the area sampled	1.0	1.0	1.0
Area of good ferret habitat (>25 active burrows / ha)	370	455	529
Active burrow density/ha	47	79	86
Prairie dog density/ha in good habitat	6.8	11.6	12.6
Prairie dog total on good habitat (ha)	2,527	5,260	6,666
Black-footed ferret family rating	3.3	6.9	8.7

¹ includes private and BLM surface. Private lands encompass about half the prairie dog habitat in this MA.

Prairie Dog Disease

Since there has been no substantive change in land use or management within the MAs, it is suspected that continued bouts of disease play a determinant role in short term prairie dog abundance and distribution.

The history and prevalence of sylvatic plague in northwest Colorado is not well documented, but as early as 1976, prairie dog inventory work by BLM was terminated in mid-June because of statewide outbreaks of this disease. In 1977, fleas collected by the Colorado Department of Health about 5 miles west of the Wolf Creek Management Area tested positive for plague. Fleas have been collected sporadically since that time by CDOW, but none have tested positive for the disease.

A ferruginous hawk study funded by Western Fuels (now Blue Mountain Energy) in the 1980's happened to capture a presumed plague outbreak and record the dramatic crash of cottontail, jackrabbit and prairie dog populations in the White River Resource Area. Baseline population figures derived from a series of belt transects yielded average prairie dog densities (June) of 147 per square kilometer between 1982 and 1984. Cottontails and jackrabbit populations plummeted in 1984, with prairie dog densities on individual transects declining by 14 to 90 percent the following year (average density of 67/km²). The influence of the epidemic peaked in 1986 and 1987, with calculated densities averaging 9 prairie dogs per square kilometer and transect declines ranging between 50-100% of baseline figures. Transecting results suggested that prairie dog populations began to recover in 1988; achieving average densities of 41/km² or about 20% of baseline transect figures. By 1989, prairie dog populations had assumed distribution and abundance comparable to current figures.

Prairie Dog Control (Excerpt from Little Snake Management Plan)

Rodent control on Federal, state, and private lands in Moffat County has occurred since 1918. Wyoming ground squirrels (Spermophilus elegans) are commonly mentioned in the earliest records as a pest causing damage to crops, or preventing the establishment of new crops. Between 1923 and 1958, rodent control records report from 160 to 101,450 acres of Wyoming ground squirrels treated annually with poison. Specific records of prairie dogs treated do not appear until 1936. Between 1935 and 1957, up to 55,420 acres of prairie dogs were controlled annually, many by Civilian Conservation Corps (CCC) camps established at Elk Springs, Massadona, and Sunbeam in 1935. From 1958 to the present, records were not kept of the acres treated for any rodent species. Although many of the records from this period emphasize poisoning Wyoming ground squirrels, it can be speculated that prairie dog colonies were also treated. In 1940, reported poisons were strychnine, poison oats, and gas bombs.

Since 1918, rodent control in Moffat County has been subsidized by mill levy (taxes), [and prompted the] creation of a rodent control department in Craig, and the execution of written agreements between the Service and the Colorado Department of Agriculture. Rodent control on Bureau lands in Moffat County has not been authorized since about 1975. There is no estimate of unauthorized prairie dog control. Rodent control on Colorado State School lands is under the control of the lessee, and authorization is not required by the State Land Board. Therefore, no records are available to determine the history of prairie

dog control on State School lands. Robert Clift (Colorado State Land Board, pers. comm. 1992), is not aware of any control that has occurred on state lands in the last 15 years.

It is reasonable to assume that extensive prairie dog control was achieved throughout the lower White River valley from the Massadona and Elk Springs CCC camps during the period 1935-1942 and that sporadic control efforts may have persisted through the 1960s, including those lands comprising the Wolf Creek and Coyote Basin MAs. No prairie dog control work has been requested or authorized on federal lands within the White River Resource Area over the last 25 years.

Prairie Dog Shooting

Prairie dog shooting is a fairly popular form of recreation in the MAs. Although no reliable statistics on shooter participation are available, based on contacts made by local CDOW staff, it is believed that the majority of shooters in the early spring months (late March through May) are residents of Moffat and Rio Blanco County. Several out-of-state parties are known to return regularly during the month of June. Shooting activity essentially ends by July 4th--biting insects and prairie dog activity patterns (i.e., aestivation) in the later summer months tend to limit shooting activity to the spring and early summer period. Rolling terrain intersected with deeply incised drainages, high percentage of shrub cover, and low road densities (less than 0.5 mile per square mile on BLM lands) tend to limit wide access to prairie dogs. The current off-road vehicle designation applied to the Management Areas (i.e., travel limited to existing roads and trails) further limits potential exposure of prairie dogs to shooting pressure. It is calculated that no more than 30% of the prairie dog habitat within the Wolf Creek MA is available within 300 yards of existing roads and trails. The number of persons participating in, and the time and effort expended in, prairie dog shooting also appears to be largely governed by prairie dog abundance—interest and shooting intensity decline considerably under low population regimens.

MANAGEMENT ROLES ASSOCIATED WITH BLACK-FOOTED FERRET RECOVERY IN THE WOLF CREEK AND COYOTE BASIN MANAGEMENT AREAS

Lands within the Wolf Creek and Coyote Basin Management Areas are administered and managed by a number of a number of federal, state, and local governments, and several dozen private landowners and agriculture and mineral lessees on federal and state lands. The coordination of ferret recovery efforts and cooperation among and between these groups and the public that uses these lands is vital to the successful reestablishment of black-footed ferret in the White River Resource Area.

The following list defines the roles of those groups that would be directly involved with efforts to reintroduce and manage ferrets in the BLM's White River Resource Area. They relate primarily to the delineated Management Areas where ferrets will be released and intensively managed, but when appropriate, may also apply to the larger Non-essential Experimental Area. Memoranda of Understanding may be necessary to finalize the responsibilities listed.

ExPA Cooperators (ExPA group)

As used in this document, the ExPA cooperators are a group of agency and university personnel intimately involved and directly charged with the administration and implementation of black-footed ferret reintroduction and recovery in the Northwest Colorado/Northeast Utah Experimental Population Area. At the present time this group is composed of representatives from the following entities:

- Colorado Division of Wildlife
- Utah Division of Wildlife Resources
- Wyoming Game and Fish Department
- Utah State University
- U.S. Fish and Wildlife Service
- U.S. Geological Survey--Biological Resources Division
- APHIS Wildlife Services (Colorado and Utah)
- Bureau of Land Management (Colorado and Utah)

U.S. Fish and Wildlife Service (USFWS)

The USFWS, in its oversight function for recovery of the black-footed ferret, will share with the Colorado Division of Wildlife the responsibility for developing final decisions concerning the husbandry, reintroduction, and management of ferrets and will assist with the design and conduct of animal and habitat monitoring studies. The USFWS will continue to coordinate the process of obtaining and delivering ferrets for reintroduction and assist with problem-solving actions involving ferret and prairie dog management. They will continue to pursue and support requests for funding required to implement the reintroduction and management of ferrets in northwest Colorado.

Bureau of Land Management (BLM)

The BLM administers about 86% of the surface estate and over 89% of the mineral estate in the Wolf Creek Management Area; 72% of the surface and 100% of the mineral estate within the Coyote Basin Management Area.

The BLM will be principally responsible for coordinating development of the Wolf Creek Management Plan and establishing a working group representing local land interests to assist in identifying land use issues and concerns that would be considered during Plan preparation. The BLM will also be responsible for maintaining the work group organization through the course of ferret recovery efforts. Together with the CDOW and the Wolf Creek Work Group, the BLM will serve as the primary liaison between various government agencies and public land users, particularly the BLM's traditional grazing and mineral development lessees. The BLM will cooperate with and assist the USFWS and CDOW in maintaining prairie dog habitat resources on BLM-administered lands within the White River Resource Area and will remain responsible for integrating ferret recovery actions into its existing framework of multiple use management. In cooperation with the CDOW, BLM will enforce any appropriate land use regulations. The BLM will continue to pursue and support requests for funding required to implement the reintroduction and management program in northwest Colorado.

Colorado Division of Wildlife (CDOW)

The Colorado Division of Wildlife has primary management responsibility for wildlife throughout the State. The CDOW will assist the BLM in coordinating development of the Wolf Creek Management Plan and will actively participate as a member of the Wolf Creek Work Group. The CDOW, together with the USFWS, will be the agency primarily responsible for collection and analysis of wildlife population and disease data necessary for the implementation of the Management Plan and will be the source for wildlife veterinarian services. The CDOW will be responsible for obtaining necessary clearance and authorization for the transport and release of ferrets and prairie dogs and predator control agreements. The CDOW will continue to pursue and support requests for funding required to implement the reintroduction and management program in northwest Colorado and will be the designated lead in public relations efforts.

The CDOW will be responsible for submitting annual reports, no later than January 15 of each year, to the Colorado House Agriculture, Livestock, and Natural Resources Committee and the Senate Agriculture, Natural Resources, and Energy Committee on the status of the reintroduction of the black footed ferret and the progress towards meeting the goals of the recovery program and the removal of the species from the federal "Endangered Species Act of 1973", as amended. These annual reports would include an assessment evaluating whether the reintroduction of the black-footed ferret will impair any use of private land or beneficial use of water existing at the time of such reintroduction. If the assessment in any annual report concludes that any such use of land will be impaired by reintroduction of the black-footed ferret, the annual report shall also describe the reason for the impact and possible actions to reduce such impact.

The CDOW shall ensure enforcement of the provisions of the black-footed ferret cooperative management plan dated June, 1995, up to and including litigation if the memorandum of understanding between Colorado and any federal agency implementing such plan is violated. If requested, the state of Colorado shall relocate any black-footed ferrets within the state of Colorado that move outside of the experimental population boundaries described in the black-footed ferret cooperative management plan dated June, 1995, into the area originally designated in the plan.

Animal and Plant Health Inspection Service, Wildlife Services (WS)

WS will cooperate with other federal and state agencies in providing expertise in collecting carnivores for disease monitoring and research efforts and, if necessary, removal of problem predators during the initial phases of reintroduction. WS will continue to the federal agency responsible for predator damage management on private and public lands in western Colorado. They will remain active in livestock protection activities in the Wolf Creek and Coyote Basin, CO Management Areas and will conduct these operations in a manner compatible with ferret recovery objectives.

Wolf Creek Work Group (WCWG, see page 9)

The WCWG is designed to represent local citizen/community concerns and provide this perspective to federal and state agency staff so as to more accurately identify, thoroughly address, and mutually resolve land use and management problems and issues that may accompany ferret reintroduction activities. The WCWG has, and will continue to, actively participate in the development of ferret management objectives and strategies contained in this document. Although the Work Group is advisory in nature and cannot supersede the authorities vested in federal, state, and local governments, it is recognized through Colorado House Bill 00-1314 as an integral and necessary component of Colorado's ferret recovery efforts. The WCWG will function in an oversight capacity, serving as a liaison between Public Land users, local government, and those state and federal government agencies charged with black-footed ferret recovery. The WCWG will also, where appropriate, serve as a first-line arbiter of disputes, helping to ensure agency accountability in implementing recovery activities consistent with this Plan's stated goals and objectives and the non-essential experimental population designation. Members of the WCWG represent a local source for information about the reintroduction program and a point of contact to which the public may forward any concerns and issues that may arise through the recovery process.

Although the work group meeting schedule may periodically change, at present the WCWG has decided to meet quarterly to review the reintroduction program, this plan's implementation, and maintain communication with governmental and private entities involved with, or affected by, ferret recovery activities. However, the WCWG may communicate on an informal or as-needed basis when work group members become aware of land use issues or conflicts that arise in the course of ferret recovery efforts.

Colorado State Land Board

The Colorado State Land Board administers 3,325 acres or 6.4% of the surface and mineral estate within the Wolf Creek Management Area. These State-owned parcels, commonly referred to as State School sections, are managed in a manner that produces income for the beneficiaries of the Trust and, in this area, are typically leased by private individuals or companies for oil and gas development, livestock grazing, and private recreation. In some instances, the Colorado Division of Wildlife leases these parcels for wildlife-related recreation. With oversight by the State Land Board, these parcels will continue to be managed and treated as private lands under the management control of the individual lessees.

To the extent possible without impacting revenue or resources, the State Land Board will cooperate with interested parties (i.e., Colorado Division of Wildlife) in providing advance notification of activities that may influence ferret recovery efforts (e.g., prairie dog control, oil and gas development). The ExPA group will ask for the cooperation of the State Land Board and the individual lessees in managing for ferret recovery, and will gain their permission and/or establish a special lease agreement prior to engaging in any ferret recovery activity on these lands.

Governed by federal and state mandate, the State Land Board has little latitude to voluntarily cooperate in ferret recovery efforts in the absence of a special lease arrangement that would ensure that any revenue foregone due to ferret-related management would be fully compensated.

Owners of Private Lands within the Management Area

Private lands comprise 7.6% of the surface and less than 4.7% of the mineral estate in the Wolf Creek MA and about 28% of the surface in the Coyote Basin MA. Potential prairie dog habitat encompassed by these lands involves about 3.5% and 55% of that within the Wolf Creek and Coyote Basin, UT Management Areas, respectively.

Private landowners within the Wolf Creek and Coyote Basin, CO Management Areas are under no obligation to actively participate in ferret recovery activities, but their advise and input will continue to be sought in developing and implementing recovery objectives. It is incumbent on the state and federal agencies involved with ferret recovery to maintain open lines of communication with these landowners, keeping them informed of recovery activities, incorporating their concerns into recovery protocol, and obtaining permission before using their private lands in any way. Landowners would be encouraged to cooperate in recovery efforts, particularly in providing access/trespass and negotiating the conduct or means of land use practices that may influence ferrets or their prairie dog prey base (e.g., predator or prairie dog control).

Public and State Land Lessees and Permit Holders

Mineral development, utility providers, and livestock grazing concerns within the ExPA area will be encouraged to assist the ExPA cooperators and the WCWG in developing and implementing

management strategies that meet ferret recovery and land use goals and objectives. The ExPA cooperators will continue to solicit these persons and groups for help in identifying potential conflicts and formulating solutions that will ensure that the ferret recovery program is designed and remains compatible with prevailing forms of land use.

**GOAL, OBJECTIVES, AND MINIMUM CRITERIA
FOR A
BLACK-FOOTED FERRET RECOVERY PROGRAM
IN THE WHITE RIVER RESOURCE AREA**

These local and national goals and objectives form the foundation for implementing ferret recovery efforts in the Wolf Creek and Coyote Basin Management Areas. All current and future management guidelines expressed through this document, and the manner in which they are implemented, are expected to conform to these standards.

Goal

To promote the recovery and delisting of the black-footed ferret by reintroducing and establishing a self-sustaining population of ferrets in the Wolf Creek and Coyote Basin Management Areas in Moffat and Rio Blanco Counties, Colorado, in a manner that is compatible with and does not infringe upon or threaten existing and future local economies and lifestyles, including, but not limited to: livestock management, mineral and industry development, and recreation activities. Reintroduction and management would be a cooperative effort of state, federal and local governments and private entities.

Objectives

The purpose of the Wolf Creek Reintroduction and Management Plan is to actively contribute toward the fulfillment of national black-footed ferret recovery objectives and, ultimately, remove the ferret from the threat of extinction. The Black-Footed Ferret Recovery Plan (USFWS 1988) established the following national recovery objectives with the immediate goal of ensuring survival of the species and down listing of the ferret to threatened status:

- 1) increasing the captive population of ferrets to 200 breeding adults by 1991 (which has been achieved),
- 2) establishing a pre-breeding population of 1,500 breeding adults in 10 or more different populations in the wild, with no fewer than 30 breeding adults in each population by the year 2010, and
- 3) encouraging the widest possible distribution of reintroduced animals throughout their historic range.

The USFWS can reclassify the ferret to threatened status when the conditions of the national recovery objectives are met, assuming that the mortality rate of established populations remains at or below a rate at which new populations are established or increasing.

Colorado can contribute to the de-listing process and black-footed ferret recovery by achieving the following objectives:

1. Design a ferret reintroduction and management program that is, and remains, compatible with existing and future land use activities in the Wolf Creek and Coyote Basin, CO Management Areas and, where appropriate, accommodates dispersal of ferrets to, and occupation of, prairie dog towns outside the Wolf Creek and Coyote Basin, CO Management Areas.
2. Maintain an open dialogue and close working relationships among involved governments, landowners, and Public Land users through the Wolf Creek Work Group, by implementing this plan's ferret management guidelines in a manner consistent with applicable land use plans (e.g., Moffat and Rio Blanco County Land Use Plans, BLM's White River Resource Area Resource Management Plan, CDOW's DAU plans).
3. Work in cooperation with private and public resource managers and public land users to maintain the black-footed ferret habitat capability index in the Management Areas at or above objective levels defined in this plan, that is:
 - a) Maintain at least 90% of the occupied extent of prairie dog habitat on BLM surface in the Wolf Creek Management Area (i.e., 15,500 acres), with prairie dog populations sufficient to support at least 50 breeding age adult ferrets (ferret family rating of 33).
 - b) Maintain at least 90% of the occupied extent of prairie dog habitat on BLM surface in the Coyote Basin, CO Management Area (i.e., 700 acres), with prairie dog populations sufficient to support at least 1 breeding age adult ferret (ferret family rating integral with the Coyote Basin, UT Primary Management Zone).
4. Release sufficient numbers of ferrets into the Wolf Creek Management Area to establish a pre-breeding population of at least 20 adult ferrets by the fifth breeding season following initial release. The Coyote Basin, CO Management Area was designed as a logical extension to Utah's portion of Coyote Basin and is meant to complement Utah's Coyote Basin ferret management area. Release of animals in the Coyote Basin, CO Management Area would be integral with ferret population objectives established for the Coyote Basin, Utah recovery site.
5. Initiate ferret reintroductions into the Wolf Creek and/or Coyote Basin, CO Management Areas when all the biological and social criteria addressed in this Management Plan are satisfied, and when cooperating agency funds are adequate to support the effort.

Minimum Criteria for Recovery Implementation

The proposed reintroduction and/or management of black-footed ferrets into the Wolf Creek or Coyote Basin, CO Management Areas will be reexamined if any of the following conditions arise:

1. Failure to retain a “non-essential experimental population” status, as defined in the Final Rule of 1 October 1998, for the reintroduced ferret population.
2. Inability to formulate a Management Plan and EA acceptable to the Work Group and governments with jurisdiction in the Management Areas.
3. The ferret habitat rating (FFR) index for the Wolf Creek Management Area is judged to be less than the minimum objective of 20 FFR (i.e. the ferret family rating needed to support 30 adults) or trends indicate the index may fall below 20 FFR within 5 years following the start of reintroduction efforts. Specific habitat or population objectives for the Coyote Basin, CO Management Area will be integral with those established for the Coyote Basin, Utah Primary Management Zone. The small size and proportion of private land within Colorado’s portion of Coyote Basin precludes its consideration as a “stand-alone” management area.
4. The Wolf Creek Work Group, the Moffat or Rio Blanco County Commissioners, or the Governor’s Office present information indicating that recovery efforts are being conducted in a manner contrary to this plan’s stated goals and objectives in this original or subsequently modified form.
5. An active case of canine distemper or sylvatic plague is documented in any wild mammal in the Management Area in the 12 months preceding scheduled reintroduction.
6. Funding is not available to implement this plan.
7. A wild black-footed ferret population is discovered within the experimental population area.

Land Use Issues and Management Strategies

This section establishes the guidelines for black-footed ferret reintroduction and management in the Bureau of Land Management's White River Resource Area. Organized by topic, this section forms the basis for conducting ferret recovery activities in a manner compatible with prevailing and potential land use activities. Recent management of rangelands in the White River Resource Area appears to have been compatible with black-footed ferret habitat needs and there is no indication that substantive changes in land management practices are needed to accommodate black-footed ferrets under the reintroduction plan. The Wolf Creek Work Group intends for this plan to be dynamic and, over time, fully expects the guidelines to change in response to newly emerging land use issues or as a means of refining their application to better accomplish stated goals and objectives.

In developing this management framework, the Wolf Creek Work Group drew extensively from Cooperative Management Plans previously established for Coyote Basin, Utah and the Little Snake Management Area, Colorado—the work accomplished by those committees is deeply appreciated.

Efforts to establish a self-sustaining black-footed ferret population will focus on the Wolf Creek Management Area and that portion of the Coyote Basin Management Area in Colorado (Maps 1, 2, and 3). Unless otherwise noted, these management strategies are intended to apply to federal (i.e., BLM) lands within the designated ferret management areas, as well as those private and State lands whose owners, through agreement, have consented to participating in recovery efforts. Many of these strategies may also be appropriate and applied, in principle, to those prairie dog habitats the lie between these two Management Areas (i.e. west of the Wolf Creek MA to the Utah border).

The land use recommendations and management provisions presented here are tiered to and fully consistent with BLM's current land use plan (i.e., White River RMP) and the U.S. Fish and Wildlife Service's Final Rule for Establishment of a Nonessential Experimental Population of Black-footed Ferrets in Northwestern Colorado and Northeastern Utah.

Reference to the Wolf Creek Management Area is intended to include the Coyote Basin, unless otherwise noted. Any reference to Public Lands involves only those federal lands administered by the Bureau of Land Management. Those State Trust Lands within the Wolf Creek Management Area are not public lands.

GOVERNMENT-STAKEHOLDER-PUBLIC NOTIFICATION & INVOLVEMENT

It is recognized that public understanding and acceptance of the ferret recovery program is essential for success. In fulfillment of provisions in the White River RMP, Colorado House Bill 1314 and subsequent Colorado Revised Statute 33-2-105.6, and the Final Non-Essential Experimental Population (NEP) Rule (see Attachments A, B, and C), stakeholder involvement and access to those charged with implementing ferret recovery in the White River Resource Area

will be maintained indefinitely through the WCWG members, Rio Blanco and Moffat County Commissioners, and routine dialogue with local, federal, and state government personnel involved with this project.

The Cooperative Management Plan

Central to this ferret reintroduction and management effort is the cooperative development of a plan (this document) that will guide ferret recovery and its involvement and influence on prevailing land use activities. The land use goals and guidelines developed in this Management Plan were developed by local citizens representing the predominant land use and interest groups active in the White River Resource Area's ferret management areas (i.e., the Wolf Creek Work Group, in conjunction with local county, BLM, and CDOW personnel.

The WCWG was established in February 2000 and is intended to serve as the principal public liaison with those entities charged with ferret recovery. The work group concept is designed to help ensure that ferret management actions within the White River Resource Area remain open to public input and are responsive to public need. The WCWG remains open to any person or entity interested in participating in ferret recovery planning and management.

This Plan was explicitly designed to integrate ferret recovery as seamlessly as possible with present and foreseeable land uses and activities in the White River Resource Area. Implementation of this Management Plan is intended to ensure that this ferret recovery program does not infringe on the rights of private land owners, lessees of State Trust Lands, or BLM lessees, and does not interfere with continued multiple use management of BLM lands. Although the Plan was developed with an understanding of foreseeable circumstances, it is intended to be dynamic, and the WCWG fully expects the guidelines to evolve in response to future circumstances and issues consistent with the Plan's stated goals and objectives. The Plan cannot supersede the existing authorities of State, County, and federal government, or current law or regulation.

The WCWG will be kept apprised of land management activities and the conduct of ferret management actions through regularly scheduled work group meetings. The WCWG will convene at least quarterly with the BLM and/or CDOW to ensure that the objectives and needs of landowners, resource managers, and BLM land users are understood and addressed and that any conflicts are satisfactorily resolved in accordance with the Plan's management guidelines, goals, and objectives. Special WCWG consideration would take place in the event of unresolved conflict or newly developing or unanticipated land management issues that are beyond the scope of this document.

Public Outreach and Communication

The draft Management Plan will be distributed to parties that have demonstrated an interest in local ferret recovery activities. The ExPA group will present this Plan to local publics in Rangely, Meeker and Craig through forums such as open houses and individual contacts. Additional public meetings and media releases will be utilized as necessary to further publicize

or explain the mechanics and principles of the Plan. It is envisioned that further needs for additional public notification would become evident in the course of continued Wolf Creek Work Group meetings.

The ExPA group would individually inform landowners within and in close proximity to the MAs of the likelihood of ferret dispersal, the provisions of the Final ExPA Rule, and updates to the Management Plan. Similarly, landowners, livestock permittees, and mineral operators within the MAs will be contacted regularly on Plan updates and as a means of monitoring the effectiveness of Plan implementation and soliciting any issues or concerns.

The WCWG will present this Management Plan to local government entities that have an active role in implementing or overseeing ferret recovery activities in the Wolf Creek and Coyote Basin MAs, including: the BLM White River Field Office Manager, DOW Area Supervisor, Rio Blanco and Moffat County Commissioners, the USFWS Assistant Colorado Field Supervisor and Colorado State Land Board to ensure consensus among these government entities concerning the concepts and current content of the Plan.

The ExPA group would provide information regarding land use etiquette, accompaniment by domestic dogs, vehicle travel prescriptions and shooting caveats on an ongoing basis to the recreating public visiting the MAs (e.g., MA access points, cooperating retail merchants).

BLM would maintain a log of land use activities in the White River Resource Area that involve ferret management issues. The log will provide a summary description of each action and how the situation was managed. This record will allow the WCWG and others to evaluate land use application with respect to this plan's goals and objectives. The log would be available to all interested parties at the BLM's White River Field Office in Meeker.

Where appropriate, State and federal permitting agencies would be requested to notify the CDOW and USFWS in a timely manner when they receive applications for projects or activities within the MAs or become aware of activities that may influence ferret recovery objectives within the Resource Area. Ferret recovery cooperators, landowners, and public land users will be encouraged to promptly communicate land management issues or concerns to one of the agencies associated with ferret recovery (e.g., County Commissioners, BLM, CDOW, USFWS) or to members of the WCWG. Established channels of communication and coordination normally used in the course of public land management are considered adequate to implement this Plan. It is understood that the CDOW must obtain a special lease on State Trust Lands within the MA in order for the State Land Board to participate as a recovery cooperator.

PRAIRIE DOG / BLACK-FOOTED FERRET MANAGEMENT

Black-footed Ferret Reintroduction Methods

The Northeast Utah/Northwest Colorado ExPA team will develop black-footed ferret reintroduction protocols. This group is responsible for the husbandry, introduction, monitoring and management of ferrets and ferret habitat in the Northeast Utah/Northwest Colorado

Experimental Population Area (see also Planned Reintroduction Activities section). The ExPA group is comprised of personnel from the USFWS, CDOW, Colorado and Utah BLM, Utah Division of Wildlife Resources, Utah State University, APHIS Wildlife Services, and USGS Biological Resources Division.

The selection of specific release sites, determination of appropriate release and monitoring techniques, and the demographics of ferrets released within the Wolf Creek and Coyote Basin Management Areas will be established by the Northeast Utah/Northwest Colorado ExPA team under the auspices of the Endangered Species Act. Release protocols and ferret habitat and population evaluation techniques will be reviewed by the ExPA cooperators annually and will be adjusted consistent with best available science and monitoring information. See “Planned Activities” section of this document for anticipated release protocols.

The WCWG presumes no role in developing release protocol, but the ExPA group will keep the WCWG informed of release methodology to ensure that the techniques chosen remain compatible with multiple use concepts and are consistent with the goals identified in this Plan.

Prairie Dog Habitat and Ferret Population Objectives

The ExPA group will use techniques and methods based on the best available science to monitor prairie dog towns as necessary to assess changes in prairie dog town extent, distribution, and density in relation to the ferret habitat and population objectives established in this plan.

Land management activities in the Wolf Creek MA will be conducted with the objective of maintaining at least 15,500 acres of occupied prairie dog habitat on BLM surface (see following Table 4 for details). Prairie dog colony extent and populations are expected to fluctuate over time in response to environmental influences. Disturbance and occupation of active prairie dog colonies will be avoided where possible, and unavoidable adverse disturbance will be minimized where practicable. Mitigation in the form of enhancing habitat quality or quantity elsewhere in the MA may be required to offset unavoidable adverse disturbance (see Attachment D).

Table 4. Goals/Objectives and Minimums Thresholds for BFF habitat on BLM Surface in Northwest CO/Northeast UT Black-footed Ferret Management Areas

Name of Area	Baseline year and prairie dog town acreage	Baseline Ferret Family Rating (FFR ¹)	Management objectives		Minimum criteria	
			Occupied Prairie dog Habitat on BLM (acres)	Black-footed ferret population index	Occupied Prairie dog Habitat on BLM (acres)	Black-footed ferret population index
Wolf Creek Management Area	17,000 (2000-2001)	33	≥15,500	≥33 FFR or ≥50 breeding age adults	12,000	<20 FFR or <30 breeding age adults
Coyote Basin Management Area	800 (1997)	2	≥700	Integral w/Coyote Basin, UT objectives	550	Integral w/Coyote Basin, UT objectives
Little Snake Management Area (for comparison)	78,300 (1993)	48	≥70,470	≥20 FFR or ≥30 breeding age adults	Not stated	<20 FFR or <30 breeding age adults
Coyote Basin, Utah PMZ (for comparison)	11,248 (1989)	46	≥10,000	>46 FFR or >69 breeding age adults	8,000	<23 FFR

¹ FFR (ferret family rating): an index of ferret habitat capacity. Derived from an estimate of prairie dog populations on habitat with ≥25 active burrows per hectare, divided by 753 (the typical number of prairie dogs killed by a ferret family group annually).

Prairie dog towns within the Non-Essential Experimental Area, but outside the MAs, are not considered vital to the success of the reintroduction program. However, land owners and land managers would be encouraged to maintain the current extent and distribution of prairie dog habitat under their control to promote ferret recovery and more quickly achieve national recovery objectives. This concept is consistent with current land use decisions on Public Lands administered by the BLM's White River Resource Area (see Attachment C).

Disease Management

The various diseases that affect prairie dogs as a source of prey and shelter for black-footed ferrets (e.g., sylvatic plague, tularemia) and those that cause direct mortality in ferrets (e.g., canine distemper) pose the most serious threat to the recovery of the black-footed ferret in this area. In particular, sylvatic plague is recognized as an imminent nationwide threat to prairie dog ecosystems and the animals that depend on them.

The ExPA team, in cooperation with the Centers for Disease Control and Prevention (CDC) and Biological Resources Discipline (BRD) of the U.S. Geological Survey, will use techniques based on the best available science to survey and monitor the Management Area for the occurrence of sylvatic plague and other disease.

Mammalian predators within and in the surrounding vicinity of the Management Areas will be periodically collected and tested for exposure to canine distemper, sylvatic plague, and tularemia. APHIS Wildlife Services will attempt to collect wild canids from the immediate vicinity of the MAs in sufficient number for CDOW to establish the prevalence and history of these diseases through blood and tissue sampling (i.e., current efforts involve approximately 20 coyote and/or red fox twice each year, winter and summer). Release protocol requires that the most current sample be within 12 months of scheduled release; sampling may continue for up to 5 years post-release. Established blood testing and sampling procedures will be used under the supervision of a Colorado Division of Wildlife veterinarian. Standardized techniques for monitoring prairie dog populations (e.g., density and distribution) will be used as an alternate indicator of disease or other factors causing a population decline, which may impact black-footed ferrets. The results of this work will be routinely reported to the WCWG.

Prairie dog towns within the MAs will be sampled for evidence of sylvatic plague prior to ferret release and throughout the recovery program. Although there is little that can be done to contain a sylvatic plague outbreak, timely identification of active plague areas will allow adjustment of ferret release sites to avoid areas with plague, and may indicate the need for removal and relocation of black-footed ferrets in areas where disease is active. If monitoring studies indicate that plague is significantly reducing prairie dog populations across the Management Area (i.e., ferret habitat ratings drops below objective levels), reintroduction efforts and recovery objectives will be reevaluated.

The ExPA team will be responsible for developing strategies to minimize disease-related mortality of ferrets, improve management of sylvatic plague, and enhance prairie dog recovery in colonies impacted by plague. The short-term objectives of habitat enhancement will be to maintain and/or reestablish the minimum acceptable prairie dog acreage and population base in the complex.

In the event of a disease outbreak, remedial actions may be implemented to reduce exposure of ferrets to disease. Prior to ferret reintroduction, recovery efforts may be temporarily abandoned in favor of an alternate release site. Ferrets occupying a site, which becomes infected with plague, may be trapped and translocated to another site or returned to captivity. These actions will either remove the entire population of black-footed ferrets or reduce the population so that it does not exceed the post-plague carrying capacity. The ExPA team will be responsible for making these determinations based on population modeling and the predicted habitat rating index.

The ExPA group under the guidance of USGS-BRD will pursue disease control initiatives, including selective application of insecticides designed to reduce flea-borne

disease transmission (e.g., sylvatic plague). Any insecticide treatments would be governed by label restrictions and/or approved experimental design. Proposals to treat BLM lands would be subject to site-specific NEPA analysis and approval through the BLM's State Office pesticide use program, as well as Section 7 conferral with the USFWS.

Domestic dogs infected with canine distemper pose a potential threat to reintroduced ferrets. Dog owners will be informed of the transmission potential of canine distemper to ferrets through such means as signs or brochures made available along roads entering the Management Areas. Public notification and seeking of voluntary cooperation may also be applied to contiguous prairie dog colonies within the Resource Area. Public outreach will be organized by CDOW and BLM in cooperation with the USFWS.

Local residents, hunters, persons associated with commercial interests, and recreationists who frequent the Wolf Creek Management Area will be discouraged from bringing dogs into the Wolf Creek MA, but otherwise encouraged to have accompanying dogs vaccinated with a recombinant form of CDV vaccine in the interest of their pet's health and ferret recovery.

BLM will seek the cooperation of livestock permittees that operate in and adjacent to the Management Areas in vaccinating their working dogs, preferably with a recombinant form of CDV vaccine, and, if funds are available, will help offset the cost of vaccinations of livestock herding dogs for BLM permittees and private ranch operations in or adjacent to the Management Area.

The ExPA team will periodically contact local veterinarians for information on infectious diseases that may influence success of the project. Local residents will be encouraged to report wildlife that appears to be sick.

Predator Control

Predator control may be necessary during release and initial establishment of ferrets, but long-term predator control programs to benefit black-footed ferrets are not planned. It is anticipated that removal of predators within or adjacent to the Management Areas will be limited to those animals taken for disease monitoring and ongoing livestock protection programs implemented through WS, as well as recreational predator hunting. However, during the release and population establishment phases of the program, it may be necessary to reduce the local population of some predator species or remove individuals of some species (e.g., coyote, red fox, badger, great-horned owl) which show a tendency to specialize on recently released black-footed ferrets and may significantly increase mortality rates before black-footed ferrets become oriented in their new environment. Experience in other release sites indicates that some form of predator management may be needed until the ferret population reaches and sustains desired population objectives. The USFWS and CDOW will make predator management determinations and implement the strategy in cooperation with WS. Necessary federal permits to manage some species (e.g., great horned owls) will be obtained, if necessary.

When practical, initial release sites will be located in areas with low predator density or where predator control has taken place.

Prairie Dog Management and Control

Land management agencies and private landowners will continue to be responsible for administering prairie dog control on lands under their jurisdiction.

Private landowners or State Land Board lessees within the MA may control prairie dogs on property they own or control, respectively. Considering the relatively small amount of potential and/or occupied prairie dog habitat on private and State land within the MA (about 4% and 6%, respectively), potential prairie dog control efforts on these lands would likely have little effect on maintaining desired levels of prairie dogs within the MA. Prairie dog habitat objectives developed in this plan do not include habitat on State or private landholdings.

Ferret recovery will not affect the ability of landowners to control prairie dogs on private lands with currently available rodenticides. However, state and federal laws protect several species of wildlife associated with prairie dog towns, including black-footed ferrets. Landowners and applicators must be aware of these laws and the potential risks of prairie dog control on protected species, since the legal responsibility for ensuring that no harm comes to protected species rests with the pesticide applicator. Use of poison bait (i.e., zinc phosphide) and certain fumigant rodenticides (i.e., aluminum phosphide) are subject to EPA label restrictions that require the user to comply with various controls designed to protect endangered or threatened animals.

The BLM and CDOW will strongly encourage the use of control agents that target prairie dogs without secondary effects to prairie dog predators or other resident wildlife. The ExPA cooperators will seek the cooperation of landowners to gain advance notification of control proposals to allow for any coordination and monitoring necessary to minimize risk to ferrets. It is unlikely that a need to control prairie dogs on Public Land would arise, however, if a disease outbreak is anticipated, it is conceivable that the ExPA group could propose control in an attempt to interrupt disease transmission. Any prairie dog control efforts on BLM lands would be coordinated with the BLM and CDOW. In the event prairie dog control was considered necessary on BLM lands, methods would be employed that are as compatible with protection of non-target species as possible, including the use of Environmental Protection Agency (EPA) registered toxicants (e. g., zinc phosphide), shooting, or non-lethal control methods (e. g., barriers, mechanical land treatment, water development). Control actions could temporarily reduce the prairie dog rating below prairie dog habitat or population objectives established in this Plan. In the event it is advantageous to incorporate private lands in disease control work, the permission of the involved landowner(s) will be first gained. The landowner will not be responsible for any costs associated with treatment.

As funding and manpower permit, the ExPa group may offer help in remedying site-specific cases where prairie dogs are causing problems to private landowners or land users within the MA. The ExPA group will, where appropriate, apply management techniques compatible with

prairie dog and black-footed ferret objectives to address such problems. Prairie dog management techniques will include methods that are not lethal to black-footed ferrets (e.g. live trapping prairie dogs for translocation elsewhere, removal of black-footed ferrets prior to control) and may involve agreements to allow expansion of acreage elsewhere in the Management Areas to compensate for the acreage lost in the course of control efforts.

Ferret Possession and Mortality

The Final Rule establishing the Non-Essential Experimental Population (Federal Register, Oct. 1, 1998) stipulated that the unavoidable and unintentional take (e.g., killing or injuring) of reintroduced black-footed ferrets would not be in violation of the Endangered Species Act, when such take was determined to be non-negligent and incidental to an otherwise legal activity. In other words, a person may kill or injure a ferret within the ExPA provided that any resulting injury or mortality to a ferret was unintentional and was not due to negligence or malicious conduct. The USFWS expects that up to 12 percent of all reintroduced ferret and their offspring would be lost to unavoidable human-related mortality (i.e., take) annually. The Final ExPA Rule does require that all known black-footed ferret injuries and mortalities (private or public lands) be reported to the proper authorities (i.e., USFWS or CDOW) as a means of establishing the circumstances leading to take. Reporting of ferret mortality will provide the information necessary to determine whether this level of take is appropriate to this area, and if there is a need to implement measures to modify the level of incidental losses.

Possession and transportation of black-footed ferrets, even those designated “nonessential experimental”, are governed by the ESA and Colorado State law. Special permits are required to possess live animals, carcasses, or parts. Only authorized personnel of the USFWS, CDOW, BLM and research institutions will be granted permits for possession and transportation of ferrets (live or dead) involved in this reintroduction. Reintroduced black-footed ferrets may be captured and relocated to: 1) avoid conflict with human activities; 2) relocate a black-footed ferret that has moved outside the northwestern Colorado/northeastern Utah experimental population area when removal is necessary to protect the black-footed ferret or is requested by the affected landowner, or 3) to improve black-footed ferret survival and recovery prospects.

Mortality factors among the reintroduced black-footed ferrets will be compiled and evaluated annually by the CDOW in cooperation with the BLM, WS, and USFWS.

PRIVATE LAND MANAGEMENT

Although not authorizing intentional take of black-footed ferret, and subject to existing laws and regulations, black-footed ferret reintroduction and black-footed ferret occupation of private lands within the experimental population boundary does not supersede or in any way reduce the fundamental rights of private landowners to manage their property and control activities that occur on those lands.

The management strategies proposed in this plan were formulated with the intent that they would avoid conflicting with private landowner operations. Ferret management actions will be

implemented on private lands only with landowner approval. Owners of private land that may be integral to successful recovery in the Management Area (e.g., use of access roads) will be principal in the preparation of specific management objectives or land use guidelines.

ExPA cooperators will be responsible for informing affected landowners of Moffat and Rio Blanco Counties within and adjacent to the MA of the potential for black-footed ferret to move and occupy lands outside the MA. The management flexibility provided by the "nonessential experimental population" designation of this reintroduction effort will be explained, particularly that ferrets that occupy their private lands outside or inside the MA may, at their request, be removed by the CDOW or USFWS and returned to the MA or captivity.

In accordance with Colorado Revised Statute 33-2-105.5, the CDOW shall submit annual reports, no later than January 15 of each year, to the Colorado House Agriculture, Livestock, and Natural Resources Committee and the Senate Agriculture, Natural Resources, and Energy Committee on the status of the reintroduction of the black footed ferret and the progress towards meeting the goals of the recovery program and the removal of the species from the federal "Endangered Species Act of 1973", 16 U.S.C. sec. 1531 et seq., as amended. The annual report shall include an assessment evaluating whether the reintroduction of the black-footed ferret will impair any use of private land or beneficial use of water existing at the time of such reintroduction. If the assessment in any annual report concludes that any such use of land will be impaired by reintroduction of the black-footed ferret, the annual report shall also describe the reason for the impact and possible actions to reduce such impact.

MANAGEMENT OF MINERAL-RELATED ACTIVITIES (including utilities)

Development of mineral resources is, and will continue to be, an important use of lands within the MA. One of the primary intentions of this ferret management plan is to reduce those measures or requirements imposed on mineral development to the minimum necessary to maintain objective levels of ferret habitat and establish objective levels of ferrets within the MA.

Actions within Management Areas

Land use activities within the Management Area will continue to be reviewed by the responsible authority to determine the project's influence on reintroduction efforts and assess conformance with objectives established in applicable land use or activity plans. It is recommended that pertinent information be disseminated to the WCWG and/or the ExPA cooperators early in the permit application process to help assure that planned activities are thoroughly reviewed for compatibility with ferret recovery and whether options are available to reduce or mitigate adverse effects.

As the principal land management and regulatory agency in the MA, the BLM's White River Resource Area would promptly notify the USFWS and/or CDOW of land use proposals submitted for processing that may influence recovery efforts. The USFWS will

coordinate review of, and input for, the proposal with the BLM, CDOW, and any other pertinent regulatory authority.

State and other federal land management and/or regulatory agencies (e.g., Colorado Division of Minerals and Geology, APHIS, NPS, EPA) will be encouraged, where appropriate, to contact and coordinate with local CDOW, USFWS, or BLM offices when actions under their jurisdiction have potential to influence or involve the ferret MAs.

Although formal Section 7 ESA consultation is not required for "nonessential experimental populations", federal agencies are urged to informally confer with the USFWS as discussed in the Interagency Cooperative Regulations implementing section 7 of the Endangered Species Act (50 CFR 402).

The ExPa cooperators will keep individuals, companies, and agencies owning land or operating leases in areas affected by ferret recovery activities informed of the status and progress of the black-footed ferret recovery program. The ExPA cooperators would seek the voluntary assistance of private landowners and the State Land Board in providing early notification of proposed actions on private and State land and, where appropriate, in developing and/or implementing these activities in a manner that complements ferret recovery efforts.

Mineral development or public utility concerns that involve prairie dog habitats would be encouraged to notify the administering agency of pending operations as early as practicable (e.g., in advance of agency-established response timetables) to allow sufficient lead time for coordination, if necessary, to negotiate means for reducing conflicts and habitat loss both within and outside the MA.

Specific Mineral Management Guidelines within Management Areas

Where applicable, the ExPA members will provide mineral development personnel with information about black-footed ferret natural history and the recovery program to promote better understanding of the significance of their actions with regard to black-footed ferret survival and recovery.

Land management agencies and landowners within the MA would be encouraged to adopt the surface use guidelines appended to this plan (Attachment D). Mineral development/public utility concerns will continue to be responsible for abiding by the regulations and policies enacted by authorizing agencies, however, they will not be subject to mandatory survey/clearance requirements on federal lands within the MAs (i.e., surface and subsurface estate) as a condition of approval. Whenever possible, mineral development and utility installation activities will be designed to avoid adverse influence on prairie dog habitat. In the event adverse impacts to prairie dog habitat are unavoidable, activities will be designed to influence the smallest area practicable and/or those areas with the lowest prairie dog densities and compensatory mitigation may be required.

Development of federal mineral resources within the MA will be subject to prairie dog/ferret habitat objectives established in this document. The rate, extent, and persistence of unavoidable habitat loss or degradation will help determine and guide compensation measures necessary to maintain objective levels of suitable ferret habitat (refer to the Surface Disturbance Management Guidelines, Attachment D). Specific management issues outside the MA would be addressed separately under guidance provided by the BLM's White River RMP.

A "Plan of Operations" will be developed for large or multi-year mineral development programs that occur on federal estate within the MA. This plan would be integral with the NEPA analysis and would be intended to document and highlight those measures or design features that the operator/lessee agrees to incorporate with the action to avoid or minimize substantive impacts to prairie dogs and ferrets during and after project life. When proposed developments cannot be designed or implemented to avoid substantive adverse impacts to the black-footed ferret or their habitat, the plan would include a Mitigation/Compensation plan that would be cooperatively developed and agreed to by the company proposing the development, the Bureau of Land Management, the U.S. Fish and Wildlife Service, the Colorado Division of Wildlife, and affected landowners or other parties. The recommended default objective for compensation is equal and in-kind replacement of the disturbed or destroyed prairie dog habitat via a cooperatively arranged expansion or enhancement of other prairie dog colonies in the recovery area.

BLM and CDOW, in coordination with the USFWS, will negotiate with utility companies and power providers in the design and location of newly constructed power lines or those power lines requiring replacement. This policy will be applicable to lands within 1/4 mile of prairie dog habitat within and outside of the Management Area. As a means of reducing raptor predation on ferrets, pole designs or devices that deter raptor perching on power poles may be warranted within this buffer. The BLM and USFWS would not require the modification of existing power line facilities to protect reintroduced ferret populations, but may seek to establish cooperative agreements with utility companies or power line owners to modify existing facilities that may adversely influence ferret recovery efforts.

It is preferable that travel related to normal mineral production and maintenance activities in the MA be conducted, as much as possible, during daylight hours.

Mineral development companies will be asked to inform the BLM or appropriate land management or regulatory agency(ies) as soon as possible upon the development of emergency or extra-normal situations that may affect prairie dogs or ferrets in the MA. The land management and regulatory agencies (e.g., BLM, Colorado Division of Minerals and Geology) would be responsible, as appropriate under regulation, MOU, or other agreement, for notifying the USFWS or CDOW of situations that may influence ferret recovery efforts.

Ferret occupation at the site of a proposed commercial activity may require special mitigation measures (e.g., delay of activities, capture and relocation of ferret(s), habitat mitigation, modification to the design of activities or facilities, singularly or in combination). The course of events chosen (e.g., capture, monitoring, or mitigation) will be determined cooperatively by the operator, CDOW, BLM, and USFWS at the time of an identified conflict. Activities associated

with routine maintenance or monitoring of existing facilities or utilities will not be subject to additional restrictive measures, but new surface disturbance at these sites may be subject to mitigation as defined above.

Current monitoring technology and manpower constraints limit definitive and timely delineation of home range movement patterns during the ferret reproductive period. The Wolf Creek Work Group supports the following approach to adjusting land use activity in the interest of protecting ferret reproductive efforts.

-In the event ferrets are believed to be well established and evenly distributed in the MA, operators would be asked to voluntarily schedule potentially disruptive activities throughout suitable habitat outside the reproductive period (1 March through 15 July), with special emphasis on avoiding the period between birthing and the emergence of young (1 May through 15 July).

-Reliable evidence of ferret occupying a proposed project vicinity (e.g., sightings, tracks derived through site-specific monitoring by ExPA cooperators or as negotiated with the operator or lease holder) during the reproductive period may warrant imposing measures as Conditions of Approval in an effort to reduce the risk of compromising ferret reproductive efforts. Such measures may include relocating the proposed facility, modifying the conduct of an activity, or imposing a timing limitation (i.e., 1 May to 15 July) on suitable habitats ≤ 0.5 mile of the documented evidence. The timing limitation buffer may be reduced in size or configuration by the appropriate authority if an environmental analysis or biological assessment finds that the activity, as proposed or conditioned, would have no reasonable likelihood of adversely influencing ferret reproductive activities. The cumulative effect of applying Conditions of Approval will be limited to those that can be imposed without significantly affecting a leasees' mineral development, extraction, or marketing rights.

BLM would maintain a log of land use activities in the White River Resource Area that involve ferret management issues. The log will provide a summary description of each action and how the situation was managed. This record will allow the WCWG and others to evaluate land use application with respect to this plan's goals and objectives. The log would be available to all interested parties at the BLM's White River Field Office in Meeker.

Actions Outside Management Areas

The continuation of normal or routine operations associated with existing facilities and/or permitted activities outside the Management Areas will not be jeopardized by the appearance of a ferret(s) in their midst. Sites explicitly in, but not necessarily limited to this category, include: the Rangely Oil Field and half the Elk Springs Unit, the Blue Mountain Energy coal mine, the Elk Springs reclamation pits, the towns and sites of Rangely, Dinosaur, Massadona, Elk Springs and Blue Mountain. The USFWS and/or CDOW, in coordination with the operator, will decide whether an individual situation warrants monitoring or animal removal. The USFWS and CDOW will be responsible for conducting/coordinating any capture and/or monitoring activities.

Commercial facility operators will be encouraged to report ferret sightings promptly to the BLM, CDOW, or USFWS. Existing avenues of communication and cooperation between and among commercial interests and federal/state agencies is considered adequate, and the development of specific timeframes and action sequences as part of this Plan are considered unnecessary at this time.

Mineral/utility development activities on federal lands outside the MA will not be subject to mandatory survey/clearance requirements or habitat compensation. Operators/lessees would generally be encouraged to conduct newly authorized operations in a manner that reduces the risk of adversely affecting ferrets that may inhabit the area (e.g., minimize involvement of prairie dog burrow systems and/or adopt construction timeframes that would avoid sensitive reproductive periods). Minimal timing limitations and/or facility relocations would be imposed by the regulatory authorities only when site-specific monitoring information indicates that a “knowing” or “negligent” take of a ferret may result.

LIVESTOCK MANAGEMENT

Livestock grazing is considered compatible with the long-term maintenance of prairie dog populations as habitat for black-footed ferret. Black-footed ferret reintroduction or management will not be considered the basis for AUM reductions in the MA or the White River Resource Area’s portion of the Experimental Population Area.

Livestock management facilities, including, but not limited to fencing, catchment ponds, erosion control structures, and tanks and troughs may continue to be located within prairie dog/ferret habitat. Minor siting adjustments and/or timing considerations are considered adequate to avoid or minimize prairie dog burrow involvement and/or prevent any reasonable likelihood of ferret injury. Authorization from the proper land management agency will continue to be required for any livestock facilities developed on public lands.

Landowners may continue to control predator and/or prairie dog populations on private lands within or outside the MA in accordance with existing law or regulation (see Prairie Dog Management and Control section).

Predator control will continue to be carried out on federal lands by APHIS Wildlife Services. CDOW, BLM and/or USFWS will coordinate with WS to review annual predator removal activities to ensure that the risk of incidental black-footed ferret mortality is minimized.

Herding dogs may continue to be used by livestock owners to manage their stock. BLM permittees and landowners within suitable ferret habitat will be encouraged to regularly vaccinate their dogs with an appropriate distemper and rabies vaccine. If funds are available, the DOW and/or BLM may help in providing vaccines to livestock permittees and private ranch operations associated with ferret habitat in BLM’s White River Resource Area. The use of dogs without up-to-date or appropriate distemper treatment will be discouraged within and between the two MAs.

Members of the ExPA group will coordinate with livestock permittees prior to the scheduling of larger-scale activities within the MA to avoid disruption of livestock operations.

PUBLIC LAND USERS – GENERAL

Local residents, hunters, commercial interests, and recreationists who frequent the Wolf Creek area will be informed of the transmission potential of canine distemper from dog to ferret and the risk of their dog contracting disease from wildlife in the MA. Land users will be asked to refrain from bringing dogs in the MA unnecessarily, but, if so, will be asked to enter the MA only with dogs whose distemper vaccinations are up-to-date.

A public relations program will be established by the CDOW in order to schedule opportunities for various individuals and/or groups to tour the MA and attend releases. These programs, as well as scheduled research and monitoring activities by ExPA cooperators, will be coordinated as necessary with the WCWG, involved livestock operators, landowners, and ExPA cooperators to avoid any potential conflicts.

All entities and personnel involved with ferret recovery and monitoring activities on BLM lands will remain subject to the same set of BLM White River Resource Area RMP-based land use decisions/restrictions as the public.

Installation and use of facilities on Public Land which the ExPA group considers necessary to enhance or facilitate ferret recovery (e.g., radio receiver towers, longer-term camp trailer parking) would be evaluated on a case-by-case basis under standard BLM land use authorization procedures. Applications for land use authorizations submitted to the BLM by the ExPA group will be subject to all applicable RMP-based considerations and restrictions. The ExPA group will closely coordinate land use authorization requests with the WCWG in a manner that allows the WCWG sufficient time to review the action in the context of this plan's goals and objectives.

Although the novelty of ferret recovery activities appears to be declining, it is anticipated that wildlife viewing activities in the MA may increase. Information provided to MA visitors will include reminders of appropriate land use etiquette (e.g., closing gates, packing trash).

RECREATION USE

Big and small game hunting

Big and small game hunting activity is considered compatible with black-footed ferret recovery activities. No special regulations for or restrictions on big game hunting activity are necessary to facilitate ferret reintroduction.

Small game or varmint hunters will be discouraged from entering the MA with dogs that have not been vaccinated for distemper within the past year. Although there is believed to be little use of hunting dogs in the MA, information will be made available to bird, rabbit, or predator hunters

that may enter or camp in the Management Area, appraising them of the potential for hunting dogs to introduce or contract disease in the MA and asking for their voluntarily compliance with vaccination measures.

A commonly employed method of post-release ferret monitoring involves a relatively intense spotlighting effort in December. Similar application in the WCMA would coincide with an established limited-license elk hunting season in Game Management Unit 10. Because the WCMA typically hosts heavy winter elk concentrations and it is possible that such activities would detract from elk hunting success, this monitoring method is considered generally inappropriate for use in the Wolf Creek MA while a big game season is in progress (currently October through December). There may be potential to conduct spotlighting operations between big game seasons (e.g., 15 November - 1 December), but the WCWG generally recommends scheduling spotlighting efforts after the conclusion of big game seasons or using alternate, less disruptive, monitoring techniques while big game hunts are in progress (e.g. diurnal snow tracking).

Prairie dog shooting

For the foreseeable future, prairie dog shooting in the MA will be managed for recreation and as a prairie dog management tool by the CDOW. The WCWG believes that maintenance of healthy prairie dog populations in this Resource Area is of common interest among prairie dog shooters and ferret recovery interests.

Because periods of ferret release (September through December) and prairie dog shooting activity (March through July) share little, if any, overlap, newly released ferrets (i.e., tendency for above-ground activity during daylight hours) would be considered to be at very low risk from mishaps associated with mistaken identity. However, if considered necessary, CDOW may recommend to the Colorado Wildlife Commission to implement a temporary closure on prairie dog shooting for a period sufficient (i.e., 1 to 2 weeks) to provide protection to ferrets during this brief period of post-release vulnerability.

To help avoid the accidental take of ferrets, information will be made available to shooters explaining the reintroduction program and local recovery activities, any restrictions or voluntary measures necessary to facilitate recovery, and the responsibilities of shooters in avoiding the unintentional take of ferrets. Cooperation from local businesses in distributing such information would be sought.

If considered appropriate based upon evaluation of annual prairie dog monitoring data or other relevant information, the ExPA group may monitor or study recreational shooting and/or its influence on prairie dog abundance and distribution. Management necessary to prevent shooting-related suppression of prairie dog populations is an option if properly designed and implemented studies (e.g., endorsed by CDOW Research and USGS BRD) indicate that prevailing levels of prairie dog shooting in the MA are directly compromising prairie dog population/ferret recovery objectives or suppressing the ability of prairie dog populations in the MA to recover from bouts of epizootic disease. Such management might include: limiting the

number of shooters in a specific area, area-specific closures, seasonal restrictions (e.g., when pregnant or with dependent young), or restricting the development of commercial prairie dog shooting activity (i.e., guiding and outfitting) on BLM land. The WCWG and ExPA group would seek to gain effective cooperation of prairie dog shooters wherever possible by requesting voluntary suspension or reduction of shooting activity in problem areas. Recommendations by the work groups to adjust State shooting regulations would be forwarded through the CDOW for review by the Colorado Wildlife Commission. The work groups would periodically review these recommendations so they remain commensurate with the level of threat to ferret recovery efforts and consistent with the land use goals established in this plan. The process of and authority for determining the circumstance and means for taking wildlife of the State is vested in the Colorado Wildlife Commission (Colorado Revised Statutes 33-1-106).

The WCWG feels there are no obvious indications suggesting that prevailing levels of prairie dog shooting are significantly depressing prairie dog abundance in the MA. The WCWG would not be inclined to suggest or support changes in current shooting regulations without substantive information indicating that prevailing shooting activity is compromising ferret recovery objectives.

OHV Use

Off-road vehicle use, either by the public or personnel associated with ferret recovery, will remain consistent with decisions expressed in the White River RMP or subsequent land use planning (e.g., travel management plan). Currently, OHV use on Public Lands within the Management Areas is limited to existing roads, trails and ways. Under prevailing use patterns within the MA, road/trail closures or use restrictions are not considered necessary to specifically accommodate ferret recovery activities.

Information will be made available to the public (e.g., kiosks at MA entrances, area sporting goods and recreational vehicle outlets) explaining the reintroduction program and any restrictions that may be applicable (e.g., BLM RMP decisions) or necessary to implement the program (e.g., disease vaccinations). The BLM and CDOW, through existing MOUs, will enforce any applicable travel restrictions.

Land Use Designations

The Wolf Creek Work Group does not support using black-footed ferret reintroduction and establishment as the basis for expansion of Dinosaur National Monument or Wilderness Area designation in the White River Resource Area. Any effort along these lines would violate the intent and mission of the WCWG, as well as the concepts embodied within this Management Plan and the NEP Rule.

**SUMMARY OF
ANTICIPATED EFFECTS OF BLACK-FOOTED FERRET REINTRODUCTION
ON CURRENT LAND USE IN THE MANAGEMENT AREAS**

The following is a summary of the anticipated effects of black-footed ferret recovery efforts on potentially affected land uses and resources in the BLM's White River Resource Area. In general, existing land uses within or outside the designated ferret Management Areas would not be significantly impacted by reintroduction activities. Current federal land management strategies appear to be largely compatible with black-footed ferret habitat needs and there is no indication that substantive changes in land management practices are needed to accommodate black-footed ferrets under the reintroduction plan.

Livestock Management

Livestock grazing regimens (numbers, distribution, etc.) would not be altered as a means for managing ferret or prairie dog populations or habitat. In the course of evaluating proposals to install structural facilities or conduct vegetation treatments on federal lands, opportunities to reduce the direct involvement of ferret habitat, the risk of disturbance during critical timeframes, and/or ferret mortality may take the form of minor adjustments in project siting or construction schedules.

Predator control activities on federal, state, or private lands will continue to be conducted by APHIS Wildlife Services.

BLM permittees and landowners within suitable ferret habitat will be encouraged to regularly vaccinate their dogs with an appropriate distemper and rabies vaccine. If funds are available, the DOW and/or BLM may help in providing vaccines to livestock permittees and private ranch operations associated with ferret habitat in BLM's White River Resource Area.

To avoid disruption of livestock operations, ExPA group members would coordinate with livestock permittees prior to scheduling larger scale recovery activities within the MA.

Off-Highway Recreational Vehicle Use

Off-road vehicle use, either by the public or personnel associated with ferret recovery, will remain consistent with decisions expressed in the White River RMP or subsequent land use planning (e.g., travel management plan). Currently, OHV use on Public Lands within the Management Areas is limited to existing roads, trails and ways. Under prevailing use patterns within the MA, road/trail closures or use restrictions are not considered necessary to specifically accommodate ferret recovery activities.

Oil and Gas and Other Mineral Development on federal lands

Presently, development of federal oil and gas and other mineral resources within the Management Areas are subject to an array of BLM land use decisions, which typically involve mitigation in the form of No Surface Occupancy, Timing Limitation, or Controlled Surface Use provisions applied as lease stipulations or Conditions of Approval.

Development of federal mineral resources within the MAs will be subject to prairie dog/ferret habitat objectives established in this document. Provisions to protect ferrets and ferret habitat will be applied in a similar fashion, but with important distinctions consistent with the stated goal of this Management Plan, namely, any mitigation imposed on mineral development activity will be the minimum necessary to prevent disruption of ferret reproductive efforts, avoid reasonable likelihood of injury or mortality to ferret, and maintain the utility and capacity of habitat available for ferrets within the MA. The cumulative effect of applying mitigation will be limited to those that can be imposed without significantly affecting a lessees' mineral development, extraction, or marketing rights.

Mineral Development Actions Within the Wolf Creek and Coyote Basin Management Areas

The following management practices include the concepts that would be used in evaluating and mitigating mineral development activities, including the installation of pipelines and powerlines:

Mineral development/public utility concerns will not be subject to mandatory ferret survey/clearance requirements on federal lands.

Activities associated with routine maintenance or monitoring of existing facilities or utilities will not be subject to additional restrictions.

Whenever practicable, mineral development and utility installation activities will be designed to avoid adverse influence of prairie dog habitat. In the event adverse impacts to prairie dog habitat are unavoidable, activities will be designed to influence the smallest area practicable and/or those areas with the lowest prairie dog densities. When proposed developments cannot be designed or implemented to avoid substantive adverse impacts to the black-footed ferret or their habitat, the project proponents and appropriate agency(ies) would cooperatively develop a mitigation plan. The recommended default objective for compensation is equal and in-kind replacement of the disturbed or destroyed prairie dog habitat via the cooperatively arranged expansion or enhancement of other prairie dog colonies in the recovery area. For the foreseeable future, habitat compensation would consist primarily of clearing woody growth from formerly occupied habitat adjacent to existing towns where vegetation appears to deter prairie dog occupation.

Confirmed ferret occupation on a proposed project site may require the application of appropriate mitigation (e.g., delay of activities, capture and relocation of ferret(s), habitat mitigation, modification to the design of activities or facilities). Mitigation would be developed cooperatively by the operator, CDOW, BLM, and USFWS at the time of an identified conflict.

Once ferrets are presumed to be dispersed throughout the MA, operators would be asked to voluntarily schedule potentially disruptive activities in the MAs outside the reproductive period (1 March through 15 July), with special emphasis on avoiding the period between birthing and the emergence of young (1 May through 15 July). Reliable evidence of ferret occupying a proposed project vicinity during the reproductive period may warrant imposing Conditions of Approval or stipulations in an effort to reduce the risk of compromising ferret reproductive efforts. These measures may include relocating the proposed facility, modifying the conduct of an activity, or conducting the activity outside the critical reproductive period (i.e., 1 May to 15 July) on suitable habitats.

BLM and CDOW, in coordination with the USFWS, will negotiate with utility companies and power providers in the design and location of newly constructed power lines or those power lines requiring replacement. This policy will be applicable to lands within 1/4 mile of prairie dog habitat within and outside of the Management Area. As a means of reducing raptor predation on ferrets, pole designs or devices that deter raptor perching on power poles may be warranted within this buffer. The BLM and USFWS would not require the modification of existing power line facilities to protect reintroduced ferret populations, but may seek to establish cooperative agreements with utility companies or power line owners to modify existing facilities that may adversely influence ferret recovery efforts.

Mineral Development Actions in Ferret Habitat Outside the Wolf Creek and Coyote Basin Management Areas

The continuation of normal or routine operations associated with existing facilities and/or permitted activities outside the Management Areas will not be jeopardized by the appearance of a ferret(s) in their midst. The USFWS and/or CDOW, in coordination with the operator, will decide whether an individual situation warrants monitoring or animal removal.

The development of mineral resources or utility installation on federal lands outside the MA will not be subject to mandatory survey/clearance requirements or habitat compensation. Operators/lessees would generally be encouraged to conduct newly authorized operations in a manner that reduces the risk of adversely affecting ferrets that may inhabit the area (e.g., minimize involvement of prairie dog burrow systems and/or adopt construction timeframes that would avoid sensitive reproductive periods). Minimal timing limitations and/or facility relocations would be imposed by the regulatory authorities only when site-specific monitoring information indicates that a “knowing” or “negligent” take of a ferret may result.

Recreational Shooting of Prairie Dogs

No limitations on prairie dog shooting are proposed in the interest of ferret recovery. For the foreseeable future, prairie dog shooting in the MAs will continue to be managed for recreation and as a management tool by the CDOW.

The WCWG believes that maintenance of healthy prairie dog populations in this Resource Area is of common interest among prairie dog shooters and ferret recovery interests. Although the WCWG feels there are no obvious indications suggesting that prevailing levels of prairie dog shooting are significantly depressing prairie dog abundance in the MA, recreational shooting and/or its influence on prairie dog abundance and distribution may be monitored by the ExPA cooperators based on evaluations of annual prairie dog monitoring data or other relevant information.

In the event credible studies or monitoring indicate that prairie dog shooting activities in the MAs are directly compromising prairie dog population/ferret recovery objectives or suppressing the ability of prairie dog populations in the MA to recover from bouts of epizootic disease, it may become necessary in the future to moderate the influence of shooting on prairie dog populations through voluntary cooperation and/or State statute. The process of and authority for determining the circumstance and means for taking wildlife of the State is vested in the Colorado Wildlife Commission (Colorado Revised Statutes 33-1-106).

Big and small game hunting

No special regulations for or restrictions on big game hunting activity are necessary to facilitate ferret reintroduction.

Small game or varmint hunters will be discouraged from entering the MA with dogs that have not been vaccinated for distemper within the past year. Hunters will be asked to voluntarily comply with vaccination measures.

Black-footed ferret monitoring activities that may detract from big game hunting opportunity (e.g., intense spotlighting efforts) will not be scheduled while a big game season is in progress, rather, alternate, less disruptive, monitoring techniques will be employed (e.g. diurnal snow tracking).

Prairie dog control

Prairie dog or ferret habitat objectives developed in this plan do not include prairie dogs or habitat associated with State or private landholdings

Ferret recovery will not influence the ability of private landowners or State Land Board lessees within the MA to control prairie dogs on property they own or control, respectively.

Use of poison bait (i.e., zinc phosphide) and certain fumigant (i.e., aluminum phosphide) rodenticides are subject to EPA label restrictions that require the user to comply with various controls designed to protect endangered or threatened animals—ferret reintroduction will not add to those prescriptions.

Private Lands

Black-footed ferret reintroduction within the experimental population boundary would not supersede or in any way reduce the fundamental rights of private landowners to manage their property and control activities that occur on those lands. Predator and prairie dog control on private and State Trust Lands will continue without modification under existing rules and regulations.

The management strategies proposed in this plan were formulated with the intent that they would avoid conflicting with private landowner operations. Ferret management actions will be implemented on private lands only with landowner approval. The management flexibility provided by the "nonessential experimental population" designation allows for landowners to request the CDOW and USFWS to capture and remove ferrets that occupy private lands outside or inside the MAs.

Ferret Mortality

The Final Rule establishing the Non-Essential Experimental Population (Federal Register, Oct. 1, 1998) stipulated that the unavoidable and unintentional take (e.g., killing or injuring) of reintroduced black-footed ferrets would not be in violation of the Endangered Species Act, when such take was determined to be non-negligent and incidental to an otherwise legal activity. The USFWS expects that up to 12 percent of all reintroduced ferret and their offspring would be lost to unavoidable human-related mortality annually.

PLANNED REINTRODUCTION ACTIVITIES FOR THE WOLF CREEK AND COYOTE BASIN MANAGEMENT AREAS

The following activities are necessary to accomplish ferret reintroduction objectives and are planned to be accomplished as presented. Some of the actions listed have already occurred or are presently being implemented. Revisions and updates to the Plan will be made annually, or as otherwise needed.

Ongoing or Completed Activities

1. CDOW and WS would continue to assess the status of canine distemper by sampling mammalian predators associated with Wolf Creek Management Area on a biannual basis (July/September and January/February). The carnivore sampling program may continue for up to 5 years post-release. Diagnostic techniques will include collection of blood samples for serology, and necropsy to detect evidence of active disease, including canine distemper, plague and tularemia.
2. The ExPA group will continue to monitor the status, and if present, the effects of sylvatic plague. Sylvatic plague activity will be monitored on prairie dogs in various locations throughout the ExPA area. Carcasses of prairie dogs found dead will be collected and submitted to CDC or other appropriate facility for diagnostic examination.
3. Sylvatic plague research will continue at the Coyote Basin site. USGS-BRD will continue to monitor flea populations in Coyote Basin for plague determination. Control of flea vectors will be attempted if plague is identified adjacent to areas of the EXPA that are determined to pose a threat to the health of ferrets. Pending approval for use, micronized dust formulation of permethrin, deltamethrin or carbaryl will be applied. Up to 1000 acres could be treated on public lands in Utah and private lands in Colorado. In addition to traditional methods of control, experimental protocols may be implemented to evaluate the efficacy of new techniques for flea control.
4. The ExPA group will continue to monitor prairie dog population abundance and distribution annually as a means of assessing ferret release protocol and monitor trends in the suitability and calculated carrying capacity of ferret habitat. These monitoring efforts will be designed and conducted in conformance with best available science as determined by the ExPA group in association with ongoing USGS-BRD research.

Planned Activities (2001-2005)

The ExPA group will make this Management Plan available to interested parties. The ExPA group will attempt to gain consensus concerning the concepts and contents of the Plan with local government entities charged with implementing and overseeing the Plan.

The ExPA group will attempt to gain necessary permissions and/or agreements with landowners or land managers within the MAs.

Provided habitat conditions are suitable and captive black-footed ferrets are available for this project, the ExPA group will initiate experimental reintroduction of black-footed ferrets in the Wolf Creek and/or Coyote Basin MAs as early as October or November, 2001. Based on most current prairie dog population data, black-footed ferret population objectives for the Wolf Creek MA will be established by the ExPA group, as well as decisions pertaining to the locations, number, and timing of ferret releases. The ExPA group will select specific release sites within the Wolf Creek and/or Coyote Basin MA and prepare the necessary equipment for releases (i. e., radio telemetry equipment, identification tags). Depending on the success of ferret establishment and subsequent reproduction, releases would likely be repeated annually for 5 years or more.

It has been the experience at other release sites that some form of predator management may be needed to ease the transition of ferrets into the wild. Although removal of predators associated with the reintroduction of ferret will primarily be done in conjunction with disease monitoring, livestock protection by WS, and recreational hunting by the public, supplemental predator control within the MA may be necessary to reduce overall predator densities during critical times of the year or remove specific depredating animals until desired ferret population objectives are reached. Control efforts would likely focus on coyote and red fox, but may also include such species as badger and great horned owl. Predator control methods would primarily involve opportunistic shooting, calling and shooting, and aerial gunning, but may include other legal methods as appropriate. WS-supervised personnel would be responsible for all predator control activities approved by the ExPA team.

The BLM and CDOW will continue to individually coordinate with and notify local individuals and groups influenced by ferret reintroduction activities. Throughout the recovery program, the ExPA group will keep the public informed of the reintroduction program through news releases, speaking engagements, personal contacts, tours and agency publications. The BLM and CDOW will be responsible for notifying Wolf Creek Work Group members and other interested parties of quarterly meeting dates and location.

The ExPA group will produce annual progress reports to be appended to this Plan. These reports will be provided to cooperators, affected publics, and interested publics.

The ExPA group will develop and distribute interpretive materials explaining ferret recovery efforts and any pertinent land use prescriptions or requests for cooperation that may be in effect. The BLM will delineate the Wolf Creek and Coyote Basin Management Areas on the ground and provide notice of pertinent vehicle travel designations.

BLM would maintain a log of land use activities in the White River Resource Area that involve ferret management issues. The log will provide a summary description of each action and how the situation was managed. This record will allow the WCWG and others to evaluate land use application with respect to this plan's goals and objectives. The log would be available to all interested parties at the BLM's White River Field Office in Meeker.

In accordance with Colorado Revised Statute 33-2-105.5, the CDOW shall submit annual reports, no later than January 15 of each year, to the Colorado House Agriculture, Livestock,

and Natural Resources Committee and the Senate Agriculture, Natural Resources, and Energy Committee on the status of the reintroduction of the black footed ferret and the progress towards meeting the goals of the recovery program and the removal of the species from the federal "Endangered Species Act of 1973", 16 U.S.C. sec. 1531 et seq., as amended. The annual report shall include an assessment evaluating whether the reintroduction of the black-footed ferret will impair any use of private land or beneficial use of water existing at the time of such reintroduction. If the assessment in any annual report concludes that any such use of land will be impaired by reintroduction of the black-footed ferret, the annual report shall also describe the reason for the impact and possible actions to reduce such impact.

Anticipated Ferret Release Protocol (2001)

A minimum of 20 black-footed ferrets (with an approximate sex ratio of 50:50) are proposed for release under the conditions described in the final experimental population rule and subsequent protocols established by the National Black-footed Ferret Recovery Program. Captive animals selected for release would be as genetically redundant as possible with the gene pool in the captive breeding population. All animals would be marked, and some may be fitted with radio transmitters.

Black-footed ferrets would be released in the fall (September through November) when juvenile black-footed ferrets in the wild become independent and exhibit dispersal tendencies; are capable of killing prey, avoiding predators and adjusting to environmental extremes. If the release of older black-footed ferrets is authorized, release would probably occur in the spring. Attempts have been made to release ferrets in late afternoon or early evening before dark to minimize above ground movements immediately after release. Released ferrets will consist primarily of young of the year (about 18 weeks old) or 4-5 year old females released with their young; additional adults may also be released depending on their age and productivity.

Different strategies for releasing captive-raised black-footed ferrets could be utilized: 1) a "hard" release with no pre-release conditioning, or 2) hard release with pre-release conditioning in a quasi-natural environment. The rationale is to compare techniques that seem reasonable in light of the present understanding of black-footed ferret biology. The hard release with no pre-release conditioning would utilize neither release cages nor any pre-conditioning in a contained prairie dog colony. The black-footed ferrets would be transported to the release site, held for a short time to ensure general health and acclimation to the reintroduction site, and subsequently released into the prairie dog colonies from the transport container.

Regardless of release technique, animals would probably be placed in separate burrow systems within the same prairie dog colony. Black-footed ferrets would be released sequentially over a period of 3-8 weeks because all animals would not reach the proper age for release at once, and it would be impossible to intensively monitor numerous radio-tagged animals simultaneously.

The Service and the cooperating agencies would continue to make minor adjustments in the proposed release strategy on site during the reintroduction phase of the program. In

subsequent years, alternative reintroduction techniques could be tested as deemed necessary by the Service, cooperating agencies, and the National Black-footed Ferret Recovery Program. Eventually, a preferred reintroduction method would be developed as a standard for use at future reintroduction sites.

Anticipated Monitoring Protocol (2001)

The ExPA group will initiate and schedule an annual monitoring program to evaluate reintroduction protocol and document reintroduction results. Based on local monitoring and ongoing research, reintroduction techniques will be modified as necessary to improve ferret survival and best achieve recovery objectives. Monitoring to determine short-term survival of ferrets will consist of a combination of spotlighting, diurnal reconnaissance, snow-tracking, and aerial surveys during selected periods after ferrets are released. Long term monitoring will be conducted to evaluate survival and reproductive success.

Common techniques currently used to monitor include spotlighting, snow-tracking, and radio telemetry. Each technique collects different types of information that will provide data for a complete evaluation of the reintroduction methodology and success. The ExPA group will coordinate all monitoring efforts with land users within the MAs to ensure that ferret research and monitoring actions conflict minimally with other land use activities. Monitoring efforts will be conducted so as not to interfere with ongoing big game seasons.

The BLM manages the Wolf Creek and Coyote Basin Management Areas under a prescription that limits motorized vehicle use to existing roads and trails. Although this designation would not preclude use of any monitoring technique, because of the area's rolling terrain, vegetative ground cover, deeply incised drainages and relatively low road density, it is likely that effective extent of vehicle-based coverage will be limited, along with the overall efficiency of spotlighting efforts. Pedestrian searches with battery packs will be used to augment survey of suitable habitats beyond vehicle spotlight ranges, but it is suspected that the use of snow-tracking surveys will need to be emphasized to refine survival and distribution information during winter season surveys. Although its use in Wolf Creek is not anticipated in 2001, opportunities to use remote sensing technology will be employed in the future where feasible.

FUNDING SOURCES AVAILABLE TO IMPLEMENT THIS REINTRODUCTION AND MANAGEMENT PLAN

Funding available through provisions of Section 6 of the Endangered Species Act will be requested by the Colorado Division of Wildlife to provide the financial basis for implementing portions of this plan.

The BLM and USFWS may be a source of supplemental funds on an annual basis.

The Challenge Cost Share Program receives federal appropriations from Congress to match state or private dollars directed toward natural resource conservation and education projects.

The National Fish and Wildlife Foundation, Washington, D. C. is available to receive requests for funds, distribute funds, or provide assistance in solving natural resource problems. Private monies raised by the Foundation for black-footed ferret projects are also a potential source of matching funds for the Challenge Cost Share Program. The Black-footed Ferret Trust Fund is administered by the Foundation for ferret recovery in cooperation with Wyoming Game and Fish Department and the USFWS.

Grants of funds under the Conservation Act of 1980 will be sought. Allocation of funds under this act enable states to propose nongame conservation projects. Prairie dog ecosystem management should receive high priority consideration due to associated species benefitting from efforts to manage prairie dogs.

Many other organizations provide grants for endangered species recovery programs and wildlife conservation and may be approached for fiscal aid. The ExPA cooperators (e.g., CDOW, BLM, USFWS, USGS-BRD) will actively pursue funding from external sources.

-ATTACHMENT A-

FINAL RULE
FOR THE ESTABLISHMENT OF A
NONESSENTIAL EXPERIMENTAL POPULATION
OF BLACK-FOOTED FERRETS
IN NORTHWESTERN COLORADO

-ATTACHMENT B-

**Colorado Revised Statute 33-2-105.6
Reintroduction of the bonytail and the black-footed ferret.**

(1) In accordance with section 33-2-105.5, the general assembly hereby determines that the following species are not currently found in the state and are listed under the federal "Endangered Species Act of 1973", 16 U.S.C. sec. 1531 et seq., as amended, and therefore require approval by the general assembly prior to reintroduction by the division. The general assembly hereby approves the reintroduction of the following species into the state of Colorado

(a) (1) The bonytail (*Gila elegans*).

(II) The reintroduction of the bonytail shall be conducted consistent with the five-year stocking plan for endangered Colorado river fish species in Colorado, as approved by the Colorado river fishes recovery program biology committee on September 1, 1998, or as may be amended.

(b) (1) The black-footed ferret (*Mustela nigripes*).

(II) The reintroduction of the black-footed ferret shall be conducted consistent with the approach described in the black-footed ferret cooperative management plan dated June, 1995, developed by the division, the United States fish and wildlife service, and the United States bureau of land management. The reintroduction program shall provide for regular updates for the local community on the status of the reintroduction and shall involve representatives of local government and affected interests in resolving issues that may arise during the reintroduction effort.

(2) Reintroduction of the species listed in subsection (1) of this section shall commence before December 31, 2002.

(3) The division shall submit annual reports, no later than January 15 of each year, to the house agriculture, livestock, and natural resources committee and the senate agriculture, natural resources, and energy committee on the status of the reintroduction of the bonytail and the black footed ferret and the progress towards meeting the goals of the recovery program and the removal of the species from the federal "Endangered Species Act of 1973", 16 U.S.C. sec. 1531 et seq., as amended.

(4) In addition to the requirements of paragraph (b) of subsection (1) of this section, the reintroduction of the black-footed ferret shall be conducted in accordance with the following requirements:

(a) Each annual report prepared pursuant to subsection (3) of this section shall include an assessment evaluating whether the reintroduction of the black-footed ferret will impair any use of private land or beneficial use of water existing at the time of such reintroduction. If the assessment in any annual report concludes that any such use of land will be impaired by reintroduction of the black-footed ferret, the annual report shall also describe the reason for the impact and possible actions to reduce such impact.

(b) Any effort to reintroduce the black-footed ferret in any areas outside the experimental population boundaries described in the black-footed ferret cooperative management plan dated June, 1995, shall require further legislative approval.

(c) The state of Colorado shall ensure enforcement of the provisions of the black-footed ferret cooperative management plan dated June, 1995, up to and including litigation if the memorandum of understanding between Colorado and any federal agency implementing such plan is violated.

(d) If requested, the state of Colorado shall relocate any black-footed ferrets within the state of Colorado that move outside of the experimental population boundaries described in the black-footed ferret cooperative management plan dated June, 1995, into the area originally designated in the plan-

(e) Nothing in the black-footed ferret cooperative management plan dated June, 1995, shall affect current prairie dog management efforts on private lands.

Source: L. 2000: Entire section added, p. 436, § 1, effective April 18.

-ATTACHMENT C-

Resource Management Objectives and Decisions Concerning Black-footed Ferret Reintroduction-- White River Resource Management Plan (July 1997)

Special Status Species

(pages 2-34 to 2-35, White River Record of Decision and Approved Resource Management Plan, July 1997)

Objectives

Increase special status species populations (black footed ferret, bald eagle, and Colorado River cutthroat trout), and the suitable extent and/or utility of their habitats on public lands in an effort to ultimately remove these species from special status consideration.

Ensure that federally authorized actions do not adversely disrupt or compromise important biological activities or contribute to increased mortality or depressed production or recruitment into a breeding population.

Management

Black-footed ferret: Black-footed ferret recovery areas would be designated on 52,050 acres of BLM-administered surface in the Lower Wolf Creek drainage and 6,740 acres of BLM-administered surface in Coyote Basin. Designated recovery areas will be available for the reestablishment of viable black-footed ferret populations.

Land use actions on federal lands that affect the overall extent or distribution of prairie dog ecosystems, or that alter the effective continuity or general densities of prairie dogs within prairie dog complexes, will be allowed as long as the integrity of prairie dog ecosystems for associated species will be maintained.

Prairie dog complexes located outside the designated recovery areas will be available as habitat for ferret dispersal and colonization provided conflicts with valid existing rights are reconciled.

Implementation

Black-footed ferret: The direct reintroduction of black-footed ferrets will be contingent on a final habitat suitability analysis and the successful development of a ferret reintroduction and management plan. Plan development will involve the mutual and cooperative efforts of all affected stakeholders (e.g., affected landowners and land use interests).

BLM lands within these designated ferret recovery areas will be managed to enhance black-footed ferret survival and recruitment, and geared toward maintaining or enhancing the capability of the sites to achieve ferret recovery objectives.

Motorized vehicle use in ferret recovery areas would be limited to existing roads and trails prior to development of a travel management plan. Development of a travel management or integrated activity plan will implement effective road and trail density goals of 1.5 miles per square mile within the ferret recovery areas.

Subsequent approval of the reintroduction plan may supersede or modify certain land use decisions and objectives included in this RMP.

Conservation measures necessary to avoid black-footed ferret mortality and maintaining or enhancing habitat suitability in prairie dog habitats lying outside designated ferret recovery areas will be provided through lease notices, mitigation measures, or COAs attached to permitted uses.

Predator control agreements within these areas will be stipulated to preclude losses of nontarget wildlife, including black-footed ferret.

-ATTACHMENT D-

**GUIDELINES FOR MANAGING SURFACE DISTURBANCES
IN PRAIRIE DOG HABITATS WITHIN THE WHITE RIVER RESOURCE AREA'S
BLACK-FOOTED FERRET MANAGEMENT AREAS**

The following discussions are based on the potential effects of surface disturbance on prairie dogs as habitat for black-footed ferrets. These guidelines are suggested conservation alternatives for application in the two black-footed ferret recovery sites in the BLM's White River Resource Area, as described in the Black-footed Ferret Reintroduction and Management Plan--Wolf Creek and Coyote Basin, CO Management Areas (Plan). Land use activities that require permitting or other federal and/or state authorization (e.g., Applications for Permit to Drill, NEPA compliance) would be subject to these guidelines once the Plan is approved by the Colorado Division of Wildlife, Moffat and Rio Blanco County Commissioners, the Bureau of Land Management and U.S. Fish and Wildlife Service. Previously permitted activities will not fall under the auspices of these guidelines. Neither the regulatory authority of, nor regulations imposed by, authorized wildlife or land management agencies are superseded by these recommendations.

Conservation of prairie dog habitats is essential to black-footed ferret management due to the complete dependence of ferrets on prairie dogs for food and shelter. The following discussion is based on maintaining prairie dog habitat and numbers as the primary ferret habitat suitability factor. However, instances will arise where habitat suitability for ferrets is influenced by factors other than physical habitat disturbance (e.g., disease). These situations will be addressed on a case-by-case basis by all involved parties when they arise.

1) Definitions:

- A) **Prairie dog habitat:** Those areas within the MA that show evidence of being inhabited by prairie dogs, including those areas currently occupied or as indicated by inactive or residual mounds or digging. Prairie dog distribution mapping is on file in the CDOW Regional Office in Grand Junction and the White River Field Office in Meeker and is presented in this document.

Town: a definable area occupied by an interacting and often loose aggregation of prairie dogs. No minimum acreages or burrow densities are prescribed.

Complex: a collection of prairie dog towns in an area such that no town is more than 4.3 miles (7 km) from its nearest neighbor.

- B) **Surface disturbance:** The disruption of the natural condition or geophysical attributes of soils or surface vegetation that would adversely influence prairie dog burrow systems or occupation of these systems by prairie dogs or black-footed ferret.

The following levels of surface disturbance are recognized as being inherent in this definition. Each level has a different effect on prairie dog habitat and may require different management strategies. Some disturbances may qualify for more than one category. Assignment to categories will depend upon duration and intensity of the activity.

- 1) Permanent - the disturbance involved so alters prairie dog habitat that it becomes unsuitable for prairie dog use for a continuous and indefinite period, but at least for a period of 2 years without intervention.
 - 2) Temporary - the disturbance involved alters prairie dog habitat to the extent it becomes unsuitable for prairie dog use for the duration of the disturbance, usually more than 6 months and less than 2 years. The habitat may become or be made suitable for prairie dog use once the disturbance is removed.
 - 3) Ephemeral - the disturbance involved encroaches on prairie dog habitat for a period of less than 6 months, following which time it again becomes or can be made suitable for prairie dog use.
- C) Loss of habitat: The altering of prairie dog habitat to the extent it becomes less suitable or unsuitable for prairie dog habitation.

The following is a list of surface disturbances, which may impact prairie dog habitat. These are grouped under possible disturbance level categories, as defined above. This is not a comprehensive list and may require modification as situations evolve.

- 1) Permanent - large constructed facilities and associated grounds/compounds; paved roads; gravel/mine pits, air strips; storage yards, certain oil/gas well pads; reservoirs
 - 2) Temporary – the majority of oil/gas/water injection well pads and drilling sites; graded roads; buried utilities
 - 3) Ephemeral - vegetation control/treatment (blading, brush beating, herbicide application, etc.); utilities (above ground power and pipelines); 2-track roads; geophysical exploration and associated travel; land surveys and associated travel
- 2) Regulation of surface disturbing activities:**
- A) To the extent possible, surface-disturbing activities will generally be designed to avoid prairie dog habitat. It is recognized that in certain situations, some forms of land treatment that involve surface disturbance may be used to enhance prairie dog habitat.

- B) If avoidance is not feasible, surface disturbances will be designed to impact the smallest and least densely populated area possible. The need for encroaching on prairie dog habitats and delineation of the area to be impacted will be determined principally by the BLM on Public Lands and by the CDOW on State lands. These evaluations will be subject to review by the USFWS (through agency conferencing) and would be reviewed by the WCWG during quarterly meetings.
- C) If adverse impacts to prairie dog habitat are unavoidable, mitigation may be required. Possible mitigation techniques are described below.

3) Mitigation for impacted prairie dog habitat:

Mitigation is recommended for losses of occupied prairie dog habitat resulting from surface disturbances on public lands. Landowners will also be encouraged to mitigate for habitat losses on private lands. The intent of mitigation will be to maintain objective levels of active prairie dog towns on BLM lands within the MAs. In this way, management agencies and operators hope to avoid reaching the minimum prairie dog habitat and population criteria identified in the Plan.

Maintaining a several thousand acre buffer should allow for natural population fluctuations, unforeseen phenomena and continued development without the concern of implementing more stringent conservation measures. Discussion of application and methods of mitigation follow:

- A) On-site habitat reclamation will be required upon cessation of **ephemeral** and **temporary** surface disturbances, as necessary.
- B) As a general rule, acre-for-acre mitigation will be required for habitat lost due to **permanent** surface disturbances. This guideline assumes that habitat potential and/or quality would be comparable in both modified and treated acreage. In situations of disparate habitat quality and at the discretion of the BLM or landowner, mitigation extent may be based on absolute prairie dog burrow density. Mitigation will occur in a suitable site as close to the point of disturbance as possible, or as determined by more specific inventory/indices.
- C) Suggested forms of mitigation are listed below. The type applicable to each situation will be determined in consultation with the CDOW and the appropriate land management agency or landowner.
 - 1) Vegetation treatment - Burning, mechanical, and/or chemical treatments applied to areas with excessive or otherwise incompatible vegetation adjacent to existing towns and likely to be colonized by prairie dogs following land treatment.
 - 2) Relocation of prairie dogs - prairie dogs translocated from the site of surface disturbance to an area with vacant burrow systems.

- 3) Create new burrow systems - the construction of artificial burrows in potential habitat which is lacking burrows and relocating affected prairie dogs to the artificial burrows.
- 4) Habitat banking - to avoid the inconvenience and inefficiency of implementing a large number of small mitigation projects over time, operators would have the option of implementing larger mitigation projects that could be used as a credit against future habitat modifications.

ATTACHMENT E

PHYSICAL EVIDENCE OF BLACK-FOOTED FERRET
IN MOFFAT AND RIO BLANCO COUNTIES, COLORADO

(adapted from “A Cooperative Management Plan for Black-Footed Ferrets, Little Snake Management Area, Colorado”, June 1995)

Date	Collection Location	County	Evidence Type	Source
1910	Within 1 mile of Meeker	Rio Blanco	2 mounted specimens; current location unknown	Felger, A.H. 1910. Birds and mammals of northwestern Colorado. Univ. of Colorado Studies 7(2), Boulder.
20 August 1940	22 miles north of Craig	Moffat	unknown	Hall, E.R. and K.R. Kelson. 1959. The mammals of North America. Ronald Press, NY.
January 1941	Morapos Creek, 19 miles southwest of Craig	Moffat	Crania, skin; repositied at Carnegie Museum, Pittsburg	Armstrong, D.M. 1972. Distribution of mammals in Colorado. Monograph No. 3. Museum of Natural History, Univ. of Kansas, Lawrence. 415pp.
21 December 1941	5 miles west of Craig			
January 1942	Craig			