

APPENDICES

The following pages contain appendices referenced in the body of the Diamond Mountain RMP. The Appendices are arranged in this order:

APPENDIX NUMBER	APPENDIX NAME	TOPICS
1	CULTURAL/ PALEONTOLOGICAL	Cultural Site Management Category Allocations for Alternatives B and E
		Cultural Program Inventory
		Utah State Guidelines for Paleontological Resource Mitigation
2	FISH AND WILDLIFE	Wildlife Forage Allocation
		Standard Operating Procedures for Wildlife
		Vegetation Manipulation Guidelines for Sage Grouse Habitat
		Wildlife Monitoring Studies
		DMRA Guidelines for Potential Black-Footed Ferret Reintroductions
		Raptor Protection Buffers and Seasonal Dates
3	LANDS	Utility Corridor Routes Overlaying other Resource Values for the Proposed Plan
		Utility Corridor Routes Overlaying other Resource Values for the Alternatives
		Isolated Tracts Considered for Sale Under the Proposed Plan
		Community Expansion Tracts Considered for sale under the Proposed Plan
4	MINERALS	Competitive Oil and Gas Leasing
		Oil and Gas Operations
		Occurrence of Oil and Gas Resources
		Reasonable Foreseeable Development
		Current Oil and Gas Leasing Stipulations and Guidance
5	RECREATION	Recreation Opportunity Spectrum Criteria
6	RIPARIAN	Utah BLM Riparian Policy of 1988
7	SPECIAL EMPHASIS AREAS	Areas of Critical Environmental Concern (ACEC) Analysis
		Wild and Scenic Rivers Eligibility and Suitability Analysis

Appendices

APPENDIX NUMBER	APPENDIX NAME	TOPICS
8	VEGETATION AND LIVESTOCK MANAGEMENT	Vegetation Inventory History and Ecological Condition
		Forage Allocation
		Allotment Categorization
		Range Monitoring Studies
		Standard Operating Procedures for Rangeland Improvements
9	WATERSHED	Utah State Water Quality Standards
10	SOCIOECONOMICS	Supporting Graphs and Analysis for Affected Environment
		BLM Utah List of Economic Values Used in Analysis of Proposed Projects
		Estimated Costs for Rangeland Improvement Projects

APPENDIX 1

CULTURAL AND PALEONTOLOGICAL RESOURCES

CONTENTS:

Cultural Site Management Category Allocation

Cultural Program Inventory

Utah Guidelines for Paleontological Resource Mitigation



CULTURAL SITE MANAGEMENT CATEGORY ALLOCATIONS

Cultural sites including ethnographic properties within DMRA will be allocated to one of three management categories. These allocations will be made in cultural resource management plans upon completion of an approved RMP. Under Alternatives B and E, the sites will be allocated as follows.

INFORMATION POTENTIAL CATEGORY

- Prehistoric villages: 10 acres or over
- Prehistoric villages: 10 acres or less
- Stratified rock shelters, caves, overhangs
- Masonry structures/sites
- Petroglyph/pictograph sites
 - Archaic
 - Fremont
 - Anasazi
- Open camps
- Hearth/oven clusters
- Middens
- Lithic scatters
 - Without associated features
 - With associated features
 - Ceramic scatters
 - With Burntstone scatters
 - With middens
- Buried sites/features
- Prehistoric, non-Ute, burials (single/multiple)
- Historic period trail systems (Euro-American and Native American)
- Historic period ranches, corrals, isolated structures, isolated features
- Historic period middens
- Historic water works, features, and structures.
- Bedrock mortar sites, bedrock metate
- Scatters:
 - Ceramics
 - Bone, shell, horn, teeth, antlers
 - Charcoal
 - Burned/fire cracked rocks
 - Cobs
 - Jacal
- Figurine, ceramic non-ceramic scatters, caches
- Dinosaur exploration, quarry sites
- Civilian Conservation Corp. (CCC) structures, features, camps, etc. (also Works Progress Administration (WPA))
- Fur trade/trapping sites

- Mining/mineral exploration, extraction and processing sites, features, areas
- Farming/ranching sites, features, areas
- Ethnic (non Native American) sites
- Post Office
- Engineering: bridges, canals, flumes, etc.
- Military/Indian conflict sites, structures, areas
- Logging/timber sites, structures, areas
- Unknown as to period, function, age, etc.
- Kill sites including associated butchering stations, camps, features
 - Drive sites
 - Jump sites
 - Arroyo traps
 - Blinds
- Paleo-Indian sites (well preserved and threatened)
 - Plano
- Paleo-Indian sites (poor condition or threatened: llano period)

PUBLIC VALUES CATEGORY

- Ute cultural heritage sites (all types) (socio-cultural use)
- Shoshone cultural heritage sites (socio-cultural use)
- Other Native American sites

The following public value site types would also be categorized as public use sites.

- Petroglyphs/pictographs (excludes Ute, Shoshone)
- Historic sites identified by public and local CLG as important with substantiated documentation.
- National Register listed sites
- Sites, structures, objects, areas interpreted through the recreation program
- Stone saloon in Browns Park
- Site types listed under the information potential Category where controlled use can be instituted for education and recreational uses, i.e.
 - Open Camps
 - Small villages
 - Middens
 - Historic trail systems
 - CCC/WPA sites, structures
 - Masonry structures
 - Bed rock mortar/metate sites
 - Fur trading/trapping sites
 - Mining/mineral industry sites, structures
 - Farming/ranching sites, structures
 - Logging/timber sites, structures

- Engineering sites
 - Bridges
 - Flumes
 - Power generation structures
 - Ditches and canals

DRMA have updated information for certain portions of the resource area. A 1990 survey (Phillips) updated information concerning the late prehistoric Fremont horticulturalist for the Uinta Basin and Mountain areas.

CONSERVATION CATEGORY

- Paleo-Indian sites (well preserved)
 - llano period (all site types)
 - Burials, human remains
- Paleo-Indian components
 - llano affiliation

Tables A1-1 and A1-2 display the suggested classifications of paleontological resources as defined by the Utah State Paleontologist. These classifications are base guidelines developed by the National Academy of Sciences (Raup, 1987). Within any sensitivity level for geological formations, there is the possibility of further classifying site-specific areas as to their paleontological significance. Therefore Table A1-2 provides suggestions for a classification system and mitigating measures for identified fossil localities.

CULTURAL PROGRAM INVENTORY

The Vernal District Class I inventory was completed in November 1980 (Jones and McKay, 1980). Since that time an area-wide Class I survey and report has not been written. The Class I documents for various projects in

PALEONTOLOGICAL RESOURCES

Table A1-1 displays the guidelines the Utah State Paleontologist has distributed concerning mitigation of paleontological resources.

**TABLE A1-1
MITIGATION LEVEL TABLE**

SENSITIVITY LEVELS	MITIGATION
<p><u>Critical (Class I)</u> Any locality from which holotype or critical reference material (eg., paratype, lectotype, etc.) has been collected. Any type geologic reference section which is critical for future reference.</p>	<p><u>Critical</u> No action will be allowed which will damage the fossil resource or alter the contextual relationships of fossil materials. Materials may be removed, but by special permit only, to qualified professionals.</p>
<p><u>Significant (Class II)</u> Any locality which contains rare, exceptionally well preserved or critical materials for stratigraphic or paleoenvironmental interpretation.</p>	<p><u>Significant</u> Depending on the size of the deposit, approved mitigation may include total salvage or may be limited to a statistically valid sample of all forms present.</p>
<p><u>Important (Class III)</u> Any locality which has produced plentiful, relatively common in the locality and elsewhere, fossil materials which are useful for stratigraphic and variability studies.</p>	<p><u>Important</u> A statistically valid sample will be obtained to mitigate any adverse impact on the resource.</p>
<p><u>Insignificant (Class IV)</u> Any locality which produces poorly preserved, common elsewhere, or stratigraphically unimportant material.</p>	<p><u>Insignificant</u> Mitigation is optional.</p>
<p><u>Unimportant (Class V)</u> Any locality which has been intensively surveyed and determined, therefore, to be of minimal scientific interest. This can include the outcrop of geological formations described as unfossiliferous in technical journals or publications.</p>	<p><u>Unimportant</u> No mitigation necessary.</p>

**TABLE A1-2
SUGGESTED PALEONTOLOGICAL CLASSIFICATION SYSTEM FOR GEOLOGIC FORMATIONS**

SENSITIVITY LEVEL	CRITERIA
Type 1	Formations known to contain fossils of significant scientific interest, or where such fossils are likely to be discovered with detailed field work.
Type 2	Formations known to contain fossils that are not of significant scientific value.
Type 3	Formations containing few fossils or fossils of little scientific value.

APPENDIX 2
FISH AND WILDLIFE RESOURCES

CONTENTS:

Wildlife Forage Requirements

Standard Operating Procedures

Vegetation Manipulation on Sage Grouse

Wildlife Monitoring Studies

Potential Wildlife Reintroduction

*DMRA Guidelines for Potential
Black-Footed Ferret Reintroduction*

Raptor Protection Buffer Zones



WILDLIFE FORAGE ALLOCATION HISTORY

Starting in 1958, the Vernal BLM District underwent an extensive adjudication process on public rangelands to adjust them to the proper carrying capacities. Formal adjudication of forage in the Diamond Mountain Resource Area for wildlife was completed between 1958-1967 coinciding with livestock grazing adjustments. Utah Division of Wildlife Resources (UDWR)-BLM cooperative agreements since this time have emphasized big game habitat enhancement. Over 6,500 acres of habitat improvement work has been completed since the mid 1960s as well as forage reservations for wildlife (2,361 Animal Unit Months [AUMs]) in Browns Park as mitigation for lost habitat from the Flaming Gorge Reservoir development.

Wildlife forage allocations were increased to 21,888 AUMs as a result of these events as well as the completion of the 1980 Three Corners and 1982 Ashley-Duchesne Grazing Environmental Impact Statements.

Table A2-1 summarizes the forage allocation for wildlife as of 1991. Current use levels are estimated at 27,600 AUMs based on UDWR annual surveys. Objective stocking levels by herd unit were also determined by UDWR based on prior stable numbers and optimum stocking levels.

Table A2-1 reflects BLM's analysis of these requests which have been further divided to corresponding grazing allotments within each herd unit. Forage allocation decisions for wildlife were made to support objective wildlife populations identified by UDWR where they didn't exceed proper carrying capacities. Monitoring, continued vegetation improvement work, and land acquisition will eventually determine if objective levels can be met. Total AUM levels for each allotment were calculated from actual use and utilization studies where data was available. In cases where this data was not available, total AUMs were determined by vegetation type based on referenced studies from similar sites.

STANDARD OPERATING PROCEDURES FOR WILDLIFE

1. Gather baseline data on 40 management indicator species and use that data to monitor the health of and the BLM's effects on all habitats within the Diamond Mountain Resource Area. Manage to delist all special status species which are indicator species and prevent the need for listing other species.

- Wildlife habitat improvement projects will require consultation with Utah Division of Wildlife Resources on job design and construction techniques one year in advance of implementation.
3. Keep the construction of all new stream crossings to a minimum. Culverted stream crossings will be designed and constructed to allow fish passage. All stream crossings will be designed and constructed to keep impacts to riparian and aquatic habitat at a minimum.
4. Relocate existing roads out of riparian areas where feasible or necessary to restore watershed and riparian stability.
5. Maintain the natural configuration of all streams.
6. Avoid direct and indirect support of floodplain development and new construction in wetlands wherever there is a practical alternative.
7. Quantification of instream flows to secure favorable conditions of water flow will be accomplished over a 15 year period by priority. Priority 1 = Pariette Wash; 2 = tributaries into the Green River in Browns Park; 3 = Argyle-Nine Mile drainage.
8. All powerlines will be constructed or modified to prevent electrocution of raptors.
9. Water will be provided to wildlife on all BLM water developments, including troughs, after livestock have been removed.

VEGETATION MANIPULATION GUIDELINES FOR SAGE GROUSE HABITAT

Treatments of sagebrush in sage grouse habitat would follow the guidelines for maintenance of sage grouse habitats (1977) including:

- Treatments within 2 miles of leks generally are not recommended.
- Treatments should not occur when sagebrush canopy density is less than 20 percent. A minimum of 20 percent sagebrush should remain after treatment.
- Living strips of sagebrush in irregular patterns should be maintained in 300 foot strips on each side of streams.

-- Herbicides should be applied with helicopters or ground equipment for best control of the spray.

- Herbicide treated areas should be no wider than 100 feet.

- Herbicide untreated areas should be at least 200 feet wide.

-- Sagebrush kills on treated areas should not exceed 90 percent.

-- Utah Division of Wildlife Resources should be notified of each specific proposal to control vegetation a minimum of 2 years in advance of treatment by means of an Environmental Assessment. UDWR may waive the 2-year notice in cases where sagebrush manipulation would not affect sage grouse.

WILDLIFE MONITORING STUDIES

PROCEDURES FOR ESTABLISHING PELLET GROUP TRANSECTS

Pellet Group Counts

General

The pellet-group study can provide valuable trend information on range use, especially in conjunction with, and as a supplement to browse utilization transects. Maximum worth for trend purposes is attained through use of permanent, swept plots. This assures greater precision and comparability of year to year data with far fewer total plots than random samples, even though they require a bit more initial effort and cost.

Guidelines for optimal use levels, as indicated by pellet-group densities per unit area, cannot be given separately from estimates of available forage resources and use patterns. This is largely a judgmental decision based on a sound concept of carrying capacity at each local site. Thus, an area of winter range with an exceptionally good mix of forage species might support 250 deer-days use per hectare (one hectare = 2.5 acres). Conversely, another area with sparse forage or dominated by species of lesser value might be maximally used at 50 deer-days use per hectare or less.

Plot Size

The preferred plot size is the 10 square meter circular plot (70 inches radius). This plot is 1/1000 of a hectare. A transect of 100 such plots is a tenth hectare so total pellet

groups would be divided by 13 and multiplied by 10 to derive deer-days use.

The merits of the 10 square meter plot over larger sizes include: (1) one person can read and record pellet groups efficiently, (2) distribution of smaller sized plots over a larger area provides more reliable estimates than a smaller number of larger plots in a restricted area, and (3) counts are more accurate because possibility of missing groups is minimized, especially when making counts after new growth of vegetation has begun.

Number and Distribution of Plots:

Short Transect in Vicinity of Browse Utilization Transect - A transect of 100 (10 square meter) plots should be made at an interval of 10 meters apart. The pellet-group transect should be laid out so as to "criss-cross" the browse transect line, or in the case of permanent swept plots, can be laid out in a straight line for ease of relocation. The short pellet-group transect is to be used as the principal transect for management purposes.

Long Transects - The main function of the long transect is to gain supplemental information on a range unit. This transect diagonally bisects the entire range or a large portion of it. Use of the long transect is optional. A minimum of 200 (10 square meter) circular plots should be established at an interval of 20 meters. Pellet-group data should be recorded separately by cover type.

Conducting Counts

Permanent, swept-plots transects are preferred, especially in areas where there is overlap in summer and winter distribution and in the dryer climate of southern Utah.

Groups may persist more than one year so, to avoid confusion, pellets should be crushed or removed from the permanent plot. Paint spraying to mark groups is not recommended since paints do not last sufficiently well to assure positive age identification of the group. A workable sweeping method is to use a small whisk broom and a plastic scoop made from a plastic bleach bottle.

Scattered groups strung out across the plot sometimes present a problem. For consistency, use 25 individual pellets within the plot boundary as a criteria for counting the group in each case.

POTENTIAL WILDLIFE REINTRODUCTIONS

It is reasonable to expect the resource area will provide suitable habitat for the following wildlife species in the

foreseeable future. To support these populations, protective actions, such as seasonal restrictions, avoidance or no-surface-occupancy stipulations, would be implemented on a site-specific basis. Additional forage for big game would be gained through vegetation treatments, or reassignment of existing AUMs from livestock to big game in their crucial habitat areas.

Bighorn Sheep

Approximately 1,200 AUMs would be assigned and maintained for bighorn sheep in Browns Park, Island Park, Dry Fork, and Nine Mile Canyon areas. Crucial habitat areas, such as lambing and rutting areas, would be protected by seasonal closures during active reproduction periods; closures to permanent human occupancy or development; and, closure to domestic sheep grazing within 10 miles of bighorn sheep occupied habitat boundaries.

Rocky Mountain Elk

Approximately 2,000 additional AUMs over current assignments would be assigned and maintained for reasonable increases in elk populations in the Browns Park and Nine Mile Canyon areas.

Antelope

Forage assignments of approximately 400 AUMs would be made to antelope on the Diamond Mountain Plateau and Browns Park areas. Presently 20-30 antelope are known to reside on the plateau and it is reasonable to expect the existing Island Park herd to expand onto Diamond Mountain in search of suitable summer habitat. Such an expansion could involve approximately 50 percent of the additional AUMs assigned to antelope. Restrictions involving this species on the Diamond Mountain Plateau would center on future fence placements and construction specifications.

Moose

During the life of this RMP, moose could be reintroduced into the DMRA. Sightings of moose have been uncommon in the resource area; however, habitat potential is excellent for additional releases. Management objectives to protect and/or enhance riparian habitat would enhance the probability of moose release throughout the DMRA.

Other species

Numerous other wildlife species have been considered for release, reintroduction or reestablishment in DMRA. These actions would be in conformance with existing cooperative agreements with UDWR and USF&WS. Vegetation needed by these species for forage and/or cover would be provided by the 50 percent of annual forage production held "in reserve" for vegetation maintenance, watershed enhancement, and non-big game species' cover and forage base. The following species that would be released onto public land within DMRA include:

Peregrine falcon	Natural reestablishment	Browns Park
River otter	Reintroduction	Green River Nine Mile Creek
Colorado cutthroat trout	Reintroduction	Browns Park, Argyle
Turkey	Reintroduction	Green River Ashley Valley
Chukar	Reintroduction	Resource areawide
Black-footed ferrets*	Reintroduction	Resource areawide

[*discussed later in this appendix]

Restrictions that would be imposed due to the presence of these animals would revolve around seasonal protection of active nesting sites (falcons), and enhancement of riparian values (otter, trout, and turkey).

Specific management objectives for any of these releases, reintroductions and/or re-establishments would be set out in habitat management plans and analyzed in the accompanying environmental assessments (or EISs, as necessary). The reader is referred to DMRA's management situation analysis (MSA) for a complete discussion of the current fisheries and wildlife management program and opportunities and challenges forecasted for the foreseeable future.

**TABLE A2-1:
CURRENT AND POTENTIAL WILDLIFE FORAGE NEEDS BY ALLOTMENT ON PUBLIC DOMAIN LAND
ADMINISTERED BY DIAMOND MOUNTAIN RESOURCE AREA ^a**

Allotments	Acres PDL	Current Wildlife Use (AUMS) ^b		Objective Wildlife Stocking Level (AUMS) ^c			Total Wildlife AUMs		Livestock Use (AUMs) 5-Year Pref. Ave. Use		Allotment Carrying Capacity in AC/AUM PDL		Wildlife Treatment Opportunity Acres (AUMs gained)	Livestock Plus Wildlife AUM Demand		Total ^d AUMs Present	
		Deer	Antelope	Elk	Bighorn	Deer	Antelope	Elk	Bighorn	Moose	Current	Objective		Current	Objective		
Antelope Powers	41,672	35	65	33	100	201	106	133	407	3,421	3,421	12	11	0	3,554	3,828	3,567
Aunt Knoll	5,476	16	10	15	46	31	40	41	117	729	729	7	6	28	770	846	792
Argyle Ridge	9,341	298	0	90	350	0	377	388	777	540	187	10	7	0	928	1,317	1,352
Asphalt Ridge	545	5	6	10	5	9	35	21	49	26	26	12	7	0	47	75	76
Bates Spring	339	9	0	15	16	2	20	24	40	67	67	4	3	0	91	107	102
Beater Basin	1,813	60	0	15	88	20	93	75	201	246	246	6	4	0	321	447	447
Big Wash	4,571	89	20	63	157	69	126	172	352	980	597	4	3	40	1,152	1,332	1,332*
Big Wash Draw	7,384	103	14	156	204	30	241	273	475	516	290	9	7	82	789	991	1,141*
Blair Basin	384	9	0	32	36	5	34	41	77	15	15	7	4	0	56	92	92
Bridgeport	9,179	534	25	57	534	31	100	25	616	139	190	12	11	82	755	834	1,877*
Browns Park (Colo.) ^b	5,615	112	25	60	309	75	60	244	5	530	530	8	5	140	727	1,233	842
Brush Creek	14,133	864	0	130	902	2	219	994	1,123	884	720	8	7	41	1,878	2,007	2,115
Bull Canyon	15,974	160	10	32	49	215	31	251	561	1,000	670	13	10	54	1,251	1,561	1,651*
Canal	2,719	41	10	0	41	40	15	51	96	224	60	10	8	0	275	320	359*
Castle Peak	36,390	78	41	55	129	217	255	174	601	2,903	2,903	13	11	41	3,077	3,504	3,870*
Clay Basin	11,081	300	91	150	600	150	210	541	1,069	845	845	8	6	20	1,386	1,914	2,548
Clay Basin Meadows	4,264	45	35	150	73	60	150	230	303	365	365	7	6	55	595	668	881*
Coal Mine Basin	4,615	296	0	136	355	2	140	432	497	720	712	4	3	161	1,152	1,218	1,327
Cooper Draw	2,357	173	21	190	208	50	298	384	586	344	344	3	3	0	728	931	931*
Cottonwood Springs	13,688	482	10	350	515	25	685	842	1,235	945	945	8	6	130	1,787	2,180	2,898
Cove and W. Cow Hollow	2,057	103	0	64	120	15	84	167	229	277	277	5	4	0	444	506	506
Current Canyon	6,433	231	0	21	315	10	179	252	562	240	160	13	8	55	492	802	1,000*
Deep Creek	234	21	0	3	21	2	10	24	35	8	8	7	5	0	32	43	31
Devils Canyon	14,823	175	10	40	227	30	101	271	478	1,368	1,056	9	8	0	1,639	1,846	1,950*
Diamond Mountain	5,721	531	21	116	546	50	494	668	1,133	788	782	4	3	14	1,456	192	2,339*
Diamond Rim	2,535	131	0	128	201	0	174	259	375	120	120	7	5	28	379	495	495*
Dinosaur Park	1,429	96	15	10	129	25	36	121	190	103	66	6	5	14	224	293	293

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ADMINISTERED BY DIAMOND MOUNTAIN RESOURCE AREA^a**

Allotments	Acres PDL		Current Wildlife Use (AUMS) ^b		Objective Wildlife Stocking Levels (AUMS) ^c				Total Wildlife AUMs		Livestock Use (AUMs)		Allotment Carrying Capacity in AC/AUM/PDL		Wildlife Treatment Opportunity		Livestock Plus Wildlife AUM Demand		Total AUMs Present	
	Deer	Antelope	Elk	Bighorn	Deer	Antelope	Elk	Bighorn	Moose	Current	Objective	5-Year	Prof. Av. Use	Current	Objective	Acres (AUMs Gained)	Current	Objective	Current	Objective
Donkey Flat	550	0	154		600	0	211		2	704	813	402	431	5	5	83	1,106	1,215	1,142	1,142
Dry Fork	604	0	240		628	2	340	15	5	844	990	470	377	4	4	40	1,314	1,460	1,261	1,261
E. Cow Hollow	22	0	32		29	10	32			54	71	50		5	4	0	104	121	112	112
E. Huber	15	35	0		21	50	18			50	89	1,048	731	15	15	0	1,098	1,137	1,137*	1,137*
E. Little Mountain	262	0	152		298	2	180		10	414	490	265	338	4	3	28	679	755	774	774
Eight Mile Flat	57	37	13		139	108	48			107	295	1,520	225	14	12	0	1,627	1,815	2,367	2,367
Five Mile	254	10	1,487		598	60	1,487	9	30	1,751	2,145	1,056	666	5	4	96	2,807	3,240	2,717*	2,717*
Flynn's Point	21	0	15		25	2	20			96	47	40		4	3	0	76	87	76	76
Gadsden	83	0	30		108	10	124		1	113	243	57		6	4	0	170	300	300	300
Gadsden Draw	61	0	56		94	10	122		1	117	227	106		6	4	0	223	333	333	333
Goslin Mountain	605	110	503		816	163	810	215	35	1,216	2,039	2,521	2,438	7	6	77	3,739	4,560	7,906	7,906
Green River Bottoms	192	2	25		230	35	25	90		219	380	330	331	11	9	0	549	710	756	756
Hacking	40	0	19		51	0	25		1	59	77	62	76	5	5	0	121	139	112	112
Halfway Hollow	5	10	0		10	25	0			15	35	154	215	20	18	0	169	189	497	497
Hatch Cove	154	3	63		196	25	82		1	220	303	281		6	5	42	501	584	833	833
Holmes-Palmer	92	2	4		92	4	10			98	106	129	92	7	7	0	227	235	235	235
Horseshoe Bend	43	2	0		103	6	0			45	109	145	141	11	9	10	190	254	343	343
Hoy Mountain	124	0	104		184	10	195		10	228	309	568	767	4	4	42	796	861	857	857
Island Park	227	0	166		484	25	517	175	5	393	1,206	35	33	17	6	69	428	1,241	1,854*	1,854*
Jackson/Crouse/Dry Hollow	511	0	211		662	30	512	53	33	722	1,290	980		6	4	138	1,702	2,270	2,305	2,305
Johnson	51	0	26		62	2	81		2	77	147	86	86	5	4	28	163	233	193	193
Lambson/Crouse/Davis	180	0	70		221	10	120	0	5	250	356	572		4	4	10	822	928	900	900
Lears Canyon	240	0	18		290	2	141		30	258	461	308	202	166	12	28	566	769	809*	809*
Little Brush Creek	7	0	2		10	0	3			9	13	15		1		0	24	28	28	28
Little Desert	44	80	32		50	119	94	45	0	156	308	2,564	1,179	17	15	28	2,720	2,872	2,569*	2,569*

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ADMINISTERED BY DIAMOND MOUNTAIN RESOURCE AREA^a**

Allotments	Acres PDL	Current Wildlife Use (AUMS) ^b		Objective Wildlife Stocking Levels (AUMS) ^c			Total Wildlife AUMs		Livestock Use (AUMs)		Allotment Carrying Capacity in AC/AUM PDL Current Objective	Wildlife Treatment Opportunity Acres (AUMs Gained)	Livestock Plus Wildlife AUM Demand Current Objective	Total AUMs Present
		Deer	Antelope	EK	Bighorn	Mooses	Current	Objective	5-Year Pref. Ave. Use	Current Objective				
Little Hole	6,755	532	0	79	1,015	0	220	0	30	611	1,265	330	941	1,595
Log Cabin	639	17	0	17	29	0	31	13		34	73	58	92	131
Mame Hole-Bear Hollow	1,451	22	0	26	87	5	70	10		48	172	140	188	312
Maji Draw	817	26	0	19	31	5	45			45	81	86	131	167
Marshall Draw ^d	5,404	239	0	75	302	5	233	25	14	314	569		314	569
McCoy Flat	12,604	211	15	0	332	19	0			226	351	843	1,069	1,194
McFarley Flat	7,556	328	25	18	408	36	47			371	491	418	789	909
McKee Spring	795	69	0	20	77	5	58	3		89	143	170	259	313
Mosby	2,152	180	2	194	309	4	278	20		376	611	220	596	831
Natural Lake	801	26	0	13	50	5	54	6		39	115	100	139	215
Oden	11	5	0	0	10	2	3			5	15	2	7	17
Ourey Road	16,958	62	16	0	134	50	0			78	184	857	935	1,041
Ourey Valley	489	23	2	0	31	12	0			25	43	30	55	73
Paddy's Gap	3,820	289	0	23	529	0	150			312	679	291	603	970
Parley Canyon	14,728	316	0	53	404	0	390	41	60	369	895	355	724	1,250
Pelican Lake	6,461	56	6	0	93	25	0			62	118	544	606	662
Perry	1,529	97	0	125	206	0	168	10		222	384	96	318	480
Powell/Sadlier	2,124	62	2	2	93	14	4			66	111	165	231	276
Red Creek Flat ^d	8,212	503	20	57	797	30	90	15	3	580	935			1,844
Red Mountain	6,661	567	0	103	616	2	400		10	670	1,030	275	945	1,305 ^e
Rich and Stetson	600	5	10	0	8	12	0			15	20	65	80	85
Ruple Cabin	12,004	203	0	187	384	50	408	40	20	390	902	2,434	2,824	3,336
Rye Grass ^d	3,366	306	0	101	631	5	177	35	13	409	861			972 ^e
S.J. Hatch	24,903	726	0	196	1,108	50	439		2	922	1,599	1,681	2,603	3,230 ^e
School Bus Draw	1,529	52	0	42	75	5	98		2	94	180	180	274	360
Sears Canyon ^d	5,021	187	0	91	422	5	245	150	14	278	836			877

**TABLE A2-1:
CURRENT AND POTENTIAL WILDLIFE FORAGE NEEDS BY ALLOTMENT ON PUBLIC DOMAIN LAND
ADMINISTERED BY DIAMOND MOUNTAIN RESOURCE AREA^a**

Allotments	Acres PDL		Current Wildlife Use (AUMS) ^b				Objective Wildlife Stocking Levels (AUMS) ^c				Total Wildlife AUMs				Livestock Use (AUMs)		Allotment Carrying Capacity in AC/AUM PDL		Wildlife Treatment Opportunity Acres (AUMs Gained)		Livestock Plus Wildlife AUM Demand		Total AUMs Present
	Deer	Antelope	Elk	Bighorn	Deer	Antelope	Elk	Bighorn	Moose	Current	Objective	Current	Objective	5-Year Pref. Ave. Use	Current	Objective	Current	Objective	Current	Objective	Current	Objective	
Serviceberry Spring	34	0	13		121	5	35		2	47	161	113		12	7	0		160	274	407			
Shindy	175	0	66		278	2	96		2	235	378	68	140	10	7	69		303	446	498			
Shiner	601	25	600		866	124	1,178	50	12	1,226	2,230	3,000	1,947	9	7	137		4,226	5,230	5,206			
Smelter Springs	21	0	48		31	0	48		2	69	81	24	24	4	4	0		93	105	83			
Spring Creek	428	0	17		441	2	74	50	10	445	577	196	182	6	5	0		641	773	773*			
Taylor Flat	668	0	7		668	3	24	18	2	675	715					42				1,777*			
Three Corners	18	27	126		58	40	130	10	10	171	238	167		3	3	14		338	405	580*			
Twelve Mile	14	15	0		55	103	27			29	185	316		14	10	0		345	501	712			
Twin Knolls	81	15	70		129	77	92	45		166	343	596	569	8	6	0		762	939	939			
N. Warren Draw	77	0	108		189	10	140	25	10	185	374	190		11	7	28		375	564	950			
S. Warren Draw	60	0	84		148	10	110	10	10	144	288			22	11	28				695			
Water Canyon #1	55	0	40		76	0	126		10	136	212	153	130	4	3	0		289	365	234			
Water Canyon #2	157	5	30		197	16	92	30		192	335	138	119	15	11	0		330	473	798			
Watson	1,241	0	12		1,826	2	45	32	3	536	876					28				937			
Wells Draw	16	8	208		32	79	303		2	232	416	814	424	9	8	56		1,046	1,230	1,555*			
West Huber	62	12	0		62	25	10			74	97	402	322	9	8	0		476	499	875			
W. Little Mountain	131	0	173		144	2	288	30	20	304	484	124	94	3	2	74		428	608	551*			
W. Pelican Lake	21	2	0		21	9	0			23	30	251	252	8	8	0		274	281	295			
W. Pot Creek	48	0	32		125	5	114		2	80	246	107		7	4	28		187	353	285			
Wetlands	126	10	10		226	78	30		3	146	337	1,096	971	14	13	0		1,242	1,433	2,863			
Wild Mountain	120	0	48		125	0	48	50		168	223	90		4	3	0		258	313	313			
Wilkinson	16	0	7		16	2	7		2	23	27	15		5	5	0		38	42	42			
Willow Creek	83	47	173		160	75	300	35	20	303	590	501		8	6	154		804	1,091	1,385*			
Willow Springs	51	0	26		82	2	32	5	5	77	126	93	80	5	4	0		170	219	196			
Young	38	15	0		75	25	0			53	100	535	252	13	12	0		588	635	633*			

**TABLE A2-1:
CURRENT AND POTENTIAL WILDLIFE FORAGE NEEDS BY ALLOTMENT ON PUBLIC DOMAIN LAND
ADMINISTERED BY DIAMOND MOUNTAIN RESOURCE AREA^a**

Allotments	Acres PDL	Current Wildlife Use (AUMS) ^b		Objective Wildlife Stocking Levels (AUMS) ^c			Total Wildlife AUMs Current	Livestock Use (AUMs) 5-Year Pref. Ave. Use	Allotment Carrying Capacity in AC/AUM PDL Current Objective	Wildlife Treatment Opportunity Acres (AUMs Gained)	Livestock Plus Wildlife AUM Demand Current Objective	Total AUMs Present			
		Deer	Antelope	EK	Bighorn	Moose									
Allotments Located North of Carbon County Line That Price RA Administrates but DMRA Allocates Forage.															
Blind Canyon	0														
Green River	3,706	194	6	8	0	217	30	26	3	0	208	276			
Kyune I	1,235	125	0	28	1	149	0	92	0	4	154	245			
Max Canyon	115	12	0	0	0	19	0	0	10	0	12	29			
Stone Cabin	320	24	0	1	0	35	0	1	20	0	25	56			
Sulfur Canyon	4,116	214	0	59	0	260	0	198	0	12	275	470			
GRAND TOTAL												27,570	48,753	49,693	112,350

a. Wildlife forage allocation for non-game species is included in table.

b. Current Use is an estimate developed by UDWR and BLM.

c. Objective, stocking levels were determined by UDWR by herd units in 1991 and may increase or decrease according to habitat conditions. BLM divided up the herd unit totals by allotment as displayed in this table.

d. Total AUMs available on each allotment were derived from actual use and utilization studies (marked by and asterisk) or through determining carrying capacities by vegetative type from referenced studies when actual use and utilization data were not available.

e. Allotments which are located partially in DMRA but grazing is administered by Colorado (Craig District), Little Snake R.A.

f. Allotments where preference is retired for livestock on non-renewable: Red Creek Flat, Taylor Flat, Watson, Rye Grass, Marshall Draw, S. Warren Draw, and Sears Canyon.

DMRA GUIDELINES FOR POTENTIAL BLACK-FOOTED FERRET REINTRODUCTION

These guidelines are a collection of prairie dog management recommendations that originated from the draft guidelines completed by the USF&WS in July 1990. These guidelines were meant to protect prairie dog habitat that would be considered for future black-footed ferret (BFF) reintroductions and the ferrets themselves.

When USF&WS guidelines become final, only those conforming to DMRA guidelines, or those that are less restrictive, would apply to proposed reintroduction areas. An RMP amendment would be required if more restrictive guidelines were developed than those presented in this RMP.

If USF&WS approved of the guidelines presented in this RMP, a site specific management plan would be developed prior to reintroduction. BLM lease holders, private landowners, and the public would supply representatives to develop a local working group that develops the management plan. USF&WS, BLM, and UDWR personnel would also have representatives on this local working group. Public comments would be received and information on the reintroduction provided to the local communities.

All prairie dog colonies in joint ownership would require the development of a cooperative management agreement consistent with RMP guidelines prior to reintroduction. The terms of agreement for BLM administered land would be consistent with RMP guidelines. The terms of agreement on non-BLM administered lands would be developed through negotiation.

BLM management guidelines recommend no changes to currently authorized permits or leases in areas where BFF are being proposed for reintroductions. This "no change" policy also applies to the maintenance and operation of existing facilities.

More restrictive conditions could be imposed by the USF&WS once BFFs were released if other reintroduced BFF populations separate from DMRA suddenly died and those in DMRA existed.

All BFF reintroductions will be experimental, non-essential, as outlined in these guidelines.

All new activities which could negatively impact the BFF would require conferencing with USF&WS.

All proposed reintroduction areas will be uniformly managed with the BLM BFF guidelines.

The following areas were prioritized as "best" potential habitat, by alternatives, based on:

- a. Current BLM planning decisions
- b. Potential conflicts with other management activities and resources
- c. Size of potential habitat
- d. Biological parameters that define the likelihood of a successful reintroduction.

Alternative A (19,000 acres)		Alternative B and Proposed Plan (33,500 acres)	
	Acre		Acre
1. Sunshine Bench	4,800	1. Sunshine Bench	4,800
2. Shiner	7,800	2. Shiner	7,800
3. Antelope Flat	2,600	3. Antelope Flat	2,600
4. Twelve Mile	1,700	4. Twelve Mile	1,700
5. Buckskin Hills	2,400	5. Eight Mile Flat	16,600

Note: Alternative C & D did not maintain habitat for BFFs.

The Utah BFF Working Group has identified Coyote Basin (Book Cliffs R.A., Vernal District) and the Cisco Desert (Grand R.A., Moab District) as its two primary release sites in Utah. DMRA probably won't receive any ferrets until 1997-1999 at the earliest, if approved in the RMP, and in only 2 sites at the most. Alternatives A and B would allow for releases in 2 sites. Alternative E and the Proposed Plan would allow for a release in only 1 site.

Up to 100 ferrets would be released initially with subsequent yearly releases of additional ferrets until a self-sustaining population is established.

If BFFs leave reintroduction areas, all the protective stipulations that applied to the reintroduction area would not apply. It would be USF&WS's responsibility to trap and return the BFFs to the reintroduction area. Adjoining private and tribal land owners will not be bound by any restrictions applied to the reintroduction area(s).

Any BFF accidentally killed must be reported to USF&WS immediately. Accidental take is defined as unintentionally harassing, harming, pursuing, killing, trapping, capturing, or collecting, or an attempt to engage in such activity.

If a complete site-specific analysis results in a finding that one or more of the BFF reintroduction areas is not suitable for BFF release after all, those sites will be removed from management under the guidelines.

Surface disturbing activities, for the purpose of these guidelines, are described as any mechanical activity

Appendix 2 - Fish and Wildlife

resulting in removal of existing vegetation or topsoil such as pipelines, roads, reservoir construction, gravel pits, etc.

Surface Use Plan of the APD permit (BLM's 13-point plan) would serve as a means of implementing BFF mitigation during the "onsite" inspection. As leases are reissued, notification would be given that the lessee is in potential BFF habitat and additional restrictions could apply as listed in these guidelines.

A mitigation agreement should be negotiated whenever proposed oil and gas developments under new lease or within new fields can't be designed to avoid translocating ferrets out of the area or destroying habitat occupied by BFFs. All costs would be paid by the company proposing the development. This mitigation agreement should be established during the permitting process at the time of the proposed development. BFF surveys are recommended prior to construction to develop plans to avoid harm to ferrets that may occupy the site.

HABITAT PROTECTION PRIOR TO BFF REINTRODUCTION		
PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B
New surface disturbing activities would be limited to a maximum of 10% within the Eight Mile Flat potential BFF habitat.	New surface disturbing activities would be limited to a maximum of 10% within potential BFF habitat.	Total surface disturbing activities would be limited to a maximum of 10% at any one time within potential BFF habitat.
Same as Alternative A	Surface disturbing activities would avoid potential BFF habitat. If activities cannot, they would cross in areas of low prairie dog density (<10 burrows/acre), cross at the shortest distance through prairie dog habitat, or disturb sites not currently being used by prairie dogs. This guideline would not apply to the maintenance and operation of existing facilities.	Surface disturbing activities would avoid potential BFF habitat. If activities cannot, they would cross in areas of low prairie dog density (<10 burrows/acre), cross at the shortest distance through prairie dog habitat, or disturb sites not currently being used by prairie dogs.
Same as Alternative A	Potential BFF habitat would remain open to mineral entry with appropriate mitigation.	Potential BFF habitat areas would be recommended for withdrawal from additional mineral entry to protect existing habitat.
Same as Alternative A	Powerlines would avoid potential BFF habitat. If they cannot, they would be buried or designed to preclude raptors from using them as hunting perches.	Same as Alternative A
Same as Alternative A	Non Surface disturbing geophysical exploration (eg-Gravity) would be allowed year round.	Same as Alternative A

Appendix 2 - Fish and Wildlife

MANAGEMENT GUIDELINES ONCE BFF ARE REINTRODUCED		
PROPOSED PLAN	ALTERNATIVE A	ALTERNATIVE B
Same as Alternative A	Do not allow new surface disturbing activities between March 1 through August 31 within 1/4 mile of BFF reintroduction areas to protect reproductive and active litter periods. These restrictions do not apply to maintenance and operation of existing facilities.	Same as Alternative A
Same as Alternative A	Vehicular travel within occupied BFF reintroduction areas would be restricted to designated roads and trails. Periods of heavy vehicular traffic (i.e., drilling) would be encouraged during daylight hours.	Same as Alternative A
To the extent that BLM has the authority, human activity would only be allowed during daylight hours from 2 hours after sunrise to 2 hours before sunset. The only exceptions would be: petroleum drilling, production operations, and associated service related traffic in the Eight Mile Flat area.	To the extent that BLM has the authority, human activity would only be allowed during daylight hours from 2 hours after sunrise to 2 hours before sunset. The only exceptions would be: in case of emergencies; petroleum drilling and associated servicing related traffic in all areas; and production operations in the Eight Mile Flat and Twelve Mile areas only.	Same as Alternative A
Same as Alternative A	Mufflers would be installed to reduce noise on all equipment located within 1/4 mile and within all BFF occupied reintroduction areas.	Same as Alternative A
Prairie dog colonies in Eight Mile Flat would be allowed to expand 10% from present size (1,660 total acres) to enhance potential BFF habitat. BLM's guidelines would also apply to the expanded areas. Where feasible, vegetation treatments would be planned to replace AUMs lost to prairie dog expansion.	Prairie dog colonies in Sunshine Bench and Twelve Mile would be allowed to expand 10% from present size (650 total acres) to enhance potential BFF habitat. BLM's guidelines would also apply to the expanded areas. Where feasible, vegetation treatments would be planned to replace AUMs lost to prairie dog expansion.	Prairie dog colonies in Sunshine Bench, Twelve Mile, and Antelope Flat would be allowed to expand 50% from their present size to enhance potential BFF habitat. BLM guidelines would also apply to the expanded areas at the time of BFF release. Where feasible, vegetation treatments would be planned to replace AUMs lost to prairie dog expansion.
Same as Alternative A	Animal damage control within occupied BFF reintroduction areas would be allowed with restrictions on placement of M-44s, traps, and snares to avoid accidental killing of BFFs. If prairie dog colonies needed reducing, no poisons would be permitted, only non-toxic methods.	Animal damage control within occupied BFF habitat would be allowed using only non-toxic methods. If prairie dog colonies needed reducing, no poisons would be permitted, only non-toxic methods.
Same as Alternative A	If it is not shown to be detrimental to BFFs, BLM would continue to support UDWR hunting regulations as they apply to prairie dogs.	BLM would encourage UDWR to prohibit prairie dog shooting on habitat that is occupied by the BFF.
Same as Alternative A	All owners of livestock herding dogs that are used within occupied BFF reintroduction areas would require proof of annual distemper vaccinations. No other free-roaming dogs would be allowed within established reintroduction areas.	Same as Alternative A
Same as Alternative A	Non-surface disturbing geophysical exploration (eg. gravity) would be allowed from September 1 to February 28 within BFF reintroduction areas	Same as Alternative A

Raptor Protection Buffers and Seasonal Dates

1. Special Status Species - Protected under provisions of the Endangered Species Act, Migratory Bird Treaty Act, Bald Eagle Protection Act, and BLM Policy (Manual 6840) as applicable.

SPECIES BUFFER DISTANCE PROTECTION DATES

Bald Eagle	0.5 miles	Year long
Peregrine Falcon	1.0 miles	Year long
Ferruginous Hawk	0.5 miles	Year long*
Mexican Spotted Owl	1000 acre NSO	Mar. 1-Aug.1** area with buffer zone around this core area

2. Utah State Sensitive Species- Protected under provisions of the Migratory Bird Treaty Act, Utah State Law, and BLM Policy (Manual 6840). BLM would continue to cooperate with UDWR in the monitoring of these species and could provide protection if a downward trend continues. BLM actions would be evaluated to determine impacts to these species and applicable mitigation could be developed and implemented from the following protection buffers and seasonal dates following NEPA review.

Burrowing Owl	0.5 miles	April 1 - July 15
Osprey	0.5 miles	April 1 - July 15
Swainson's Hawk	0.5 miles	April 1 - July 15
Northern Goshawk	0.5 miles	April 15- Aug. 20
Short-eared Owl	0.5 miles	April 10- June 15

3. Golden Eagle which is protected under the provisions of the Bald Eagle Protection Act and the Migratory Bird Treaty Act.

Golden Eagle	0.5 miles	Year long*
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4. Raptor Species protected under the provision of the Migratory Bird Treaty Act considered as important raptor species by the Utah Division of Wildlife Resources and BLM as indicators of the health of the ecosystems they occupy. BLM would continue to cooperate with UDWR in the monitoring of these species and could provide protection if a downward trend continues. BLM actions would be evaluated to determine impacts to these species and applicable mitigation could be developed and implemented from the following protection buffers and seasonal dates following NEPA review.

Prairie Falcon	0.5 miles	April 1 - July 15
Merlin	0.5 miles	April 15- June 25
American Kestrel	0.5 miles	May 1 - June 30

Turkey Vulture	0.5 miles	May 15 - Aug. 15
Cooper's Hawk	0.5 miles	May 1 - Aug. 15
Sharp-shinned Hawk	0.5 miles	June 20 - Aug. 15
Northern Harrier	0.5 miles	April 1 - July 15
Red-tailed Hawk	0.5 miles	April 1 - July 15
Great Horned Owl	0.5 miles	Feb. 1 - May 15
Long-eared Owl	0.5 miles	Mar. 15 - June 15

These recommended buffer distances and protection dates will be revised as new information becomes available. Distances will also be affected by terrain and line of sight from the nest to the proposed development.
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* Nests must have been active within the past two years for buffer distances to apply. See Table 2-15, Chapter 2 for more information.

** No records exist to document the existence of the Mexican Spotted Owl within the Diamond Mountain Resource Area. Should any individuals be found during future inventory work, the following buffer distances and protection dates would apply. Implementation of these protection stipulations would be considered following proper NEPA review.