ENVIRONMENTAL ASSESSMENT

WY-040-06-067

RED DESERT LIVESTOCK CONVERSION

FOR: HELLYER LIMITED PARTNERSHIP

United States Department of the Interior
Bureau of Land Management
Rock Springs Field Office

September 2007

INTRODUCTION

Need for the Proposed Action

On July 21, 1998, Magagna Brothers submitted a request for a transfer and conversion of AUMs in the Continental Peak and Red Desert Allotments. They requested that the AUMs be transferred to Robert and Martha Hellyer (now Hellyer Limited Partnership) and that the AUMs be converted from sheep to cattle. On March 3, 1999, a decision was issued denying the requested livestock conversion because the Continental Peak and Red Desert Allotments fall within the area being analyzed in the Jack Morrow Hills Coordinated Activity Plan (JMH CAP). Such actions were on hold until the JMH CAP was completed (40 CFR 1506.1). The transfer, however, was completed on June 15, 1999. On May 12, 2004, Hellyer Limited Partnership and Magana Brothers jointly sent a letter to the Rock Spring Field Office (RSFO) to again request a livestock conversion in the Continental Peak and Red Desert Allotments. Now that the Record of Decision for the JMH CAP is signed (USDI 2006), the Rock Springs Field Office can proceed with the analysis of the requested livestock conversion. After discussions, BLM and Hellyer Limited Partnership have decided to consider both allotments separately, in terms of a livestock conversion. Therefore, this proposal is for the Red Desert Allotment only. The request is to convert existing use under permit to the Hellyer Limited partnership from sheep use to cattle use, sheep use or a combination of sheep and cattle use.

Conformance with Land Use Plans

The Proposed Action is in conformance with the Record of Decision Green River Resource Management Plan approved August 8, 1997, the Jack Morrow Hills Coordinated Activity Plan Record of Decision dated July 19, 2006, the land use plan terms and conditions as required by 43 CFR 1610.5-3(a), and the Red Desert Allotment Management Plan (AMP) and revisions, dated March 7, 1984. The Green River RMP EIS and JMH CAP EIS analyzed the impacts of grazing.

The JMH CAP EIS presented an extensive cumulative impact analysis for past, present, and foreseeable future actions based on individual resource values. The cumulative impact analysis is found on the internet at http://www.wy.blm.gov/jmhcap/2004final/index.htm. This analysis tiers to the JMH CAP and incorporates by reference those sections of the JMH CAP EIS affected by the proposal.

Relationship to Statutes, Regulations, or Other Plans

This EA fulfills the National Environmental Policy Act (NEPA) requirement for site-specific analysis. The Proposed Action is in accordance with 43 CFR 1610.5-3(a); Federal Land Policy and Management Act (FLPMA) of 1976, as amended; Sandy Grazing Environmental Statement Record of Decision (1979); Taylor Grazing Act of 1934; and National Environmental Policy Act (NEPA) of 1969. The Wyoming Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management were developed and approved by the Secretary of the Interior on August 12, 1997.

The regulations at 43 CFR 4180.1 detail four fundamentals of rangeland health. They are:

1. Watersheds are in or are making progress toward properly functioning physical condition, including their upland, riparian-wetland, and aquatic components; soil and plant conditions support infiltration, soil moisture storage, and the release of water that are in balance with climate and landform and maintain or improve water quality, water quantity, and timing and duration of flow.

2. Ecological processes including the hydrologic cycle, nutrient cycle, and energy flow are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities.

3. Water quality complies with State water quality standards and achieves, or is making significant progress toward achieving established BLM management objectives such as meeting wildlife needs.

4. Habitats are, or are making significant progress toward, being restored or maintained for Federal threatened and endangered species, Federal Proposed, Federal candidate, BLM Sensitive Species, and other special status species.

The BLM developed "Wyoming Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management" (S&Gs) to achieve the four fundamentals of rangeland health. These Standards relate the minimal acceptable conditions for BLM-administered public rangelands, including the health, productivity, and sustainability of the land. The achievement of a Standard is determined by observation, measuring, and monitoring conditions in the field and is measured on a watershed scale. If livestock grazing practices are found to be among factors contributing to a failure to meet a Standard, corrective action must be developed and implemented before the next grazing season in accordance with the grazing regulations. Guidelines provide reasonable, responsible, and cost-effective management practices at the grazing allotment and watershed levels to attain and maintain rangeland Standards. These management practices either maintain existing desirable conditions or move rangelands toward statewide Standards within reasonable time frames.

The six Standards for Healthy Rangelands are:

> Standard 1: Within the potential of the ecological site (soil type, landform, climate, and geology), soils are stable and allow for water infiltration to provide for optimal plant growth and minimal surface runoff.
>
> Standard 2: Riparian and wetland vegetation have structural, age, and species diversity characteristic of the state of channel success and is resilient and capable of recovering from natural and human disturbance in order to provide forage and cover, capture sediment, dissipate energy, and provide for ground water recharge.

Standard 3: Upland vegetation on each ecological site consists of plant communities appropriate to the site which are resilient, diverse, and able to recover from natural and human disturbance.

Standard 4: Rangelands are capable of sustaining viable populations and a diversity of native plant and animal species appropriate to the habitat. Habitats that support or could support threatened species, endangered species, species of special concern, or sensitive species will be maintained or enhanced.

Standard 5: Water Quality meets state standards.

Standard 6: Air Quality meets state standards.

An assessment of the Standards for Rangeland Health was conducted in 1999 for the Red Desert Allotment and is available for review at the Rock Springs Field Office. The allotment met all the Standards. The Interdisciplinary (ID) team that evaluated the Red Desert allotment for conformance with the Standards for Healthy rangelands recognized that Standards 1-4 were being met under "current grazing practices." For the five grazing years immediately preceding the Standards evaluation (1994 -1998), average licensed use in the allotment was 826 AUMs or 8% of total active use. This level of use was considered to be "current grazing practices" and was instrumental to the allotment meeting the Standards for Rangeland Health.

There are 8.4 miles of stream in Proper Functioning Condition (PFC) in the Red Desert Allotment.

DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

Proposed Action

The proposed action is to convert Hellyer Limited Partnership's permitted sheep use to cattle use, sheep use or a combination of sheep and cattle use on the Red Desert Allotment. Hellyer Limited Partnership's current permitted use is shown in Table 1. The trailing use shown in Table 1 was acquired from the Erramouspe Family and is necessary to accommodate movement of livestock from winter range in the Rock Springs Allotment (south of the Red Desert Allotment) through the Red Desert Allotment to the Continental Peak Allotment.

Table 1. Hellyer Existing Permitted Use

ALLOTMENT	LIVESTOCK NUMBER & KIND	GRAZING PERIOD	PERCENT FEDERAL	AUMs
Red Desert	3,660 Sheep	5/1-5/6 (trailing use)	100	144
	2,300 Sheep	5/1-12/15	91	3,152

The proposed conversion would be from 3,152 AUMs sheep to 1,337 AUMs cattle or any combination of cattle and sheep not to exceed 1,337 AUMs. However, if only sheep are run, the original total of 3,152 AUMs may be used. This new number was arrived at by calculating the current active use (AUMs) by cattle in the allotment (6,460), the current estimated amount of AUMs used by wintering elk in the Pinnacles pasture (408) and wild horses (3,600), and the amount of suitable acreage for livestock grazing within 2 miles of water sources (132,565 acres).

Assuming good condition rangeland for forage production these types of range sites produce about 1 AUM for every 13 acres. The suitable acreage would have available 10,197 AUMs of forage (132,565 acres / 13 acres/AUM). For the most part wintering big game would not use much of their 408 AUMs within the 2-mile radius of water so this is not figured into the calculations. Wildlife uses during the growing season are already taken into account in range site guidelines. Wild horses will use about 2/3's of their AUMs within this 2-mile radius (2,400). Total AUMs available minus the existing cattle and horse AUMs leaves 1,337 AUMs available for allocation to cattle (10,377 - 6,460 - 2,400 = 1,337). Trailing forage use of 144 AUMs would be for cattle or sheep. Hellyer Limited Partnership's proposed conversion of permitted use is shown in Table 2.

Table 2. Proposed Conversion Use

ALLOTMENT	LIVESTOCK NUMBER & KIND	GRAZING PERIOD	PERCENT FEDERAL	AUMs
Red Desert	732 Cattle or 3,660 Sheep	5/1-5/6 (trailing use)	100	144
	191 Cattle	5/1-12/15	91	1,337
	or 2,300 Sheep			3,152
	or a combination of sheep and cattle		91	not to exceed 1,337

The Pinnacles Pasture of the Red Desert Allotment has no livestock watering developments, and contains elk crucial winter range. To reduce impacts to elk from the increase in cattle grazing on this sensitive area, Hellyer Limited Partnership has agreed to conduct joint utilization monitoring with the BLM. Key areas for monitoring will be identified west of the road that forms the border between the Alkali Draw and South Pinnacles Wilderness Study Areas. The livestock will be removed from this area when the utilization levels reach 30% of stems bitten on mountain shrub species in the Pinnacles pasture. For the entire allotment livestock will be removed when utilization levels reach 35% of current year's growth on key upland grass species or riparian herbaceous species, or 30% of stems bitten on riparian willows. The livestock will be moved to the next pasture in the grazing rotation or to the next permitted grazing allotment. The livestock will not be allowed to graze on any portion of the allotment where utilization levels have been met for the rest of the grazing season.

Hellyer Limited Partnership proposes to use only the Bear Creek, Buffalo Hump, and Pinnacles pastures in the Red Desert Allotment. They are required to follow the grazing treatments designed for these pastures as defined in the Red Desert Allotment Management Plan (AMP), as stated on their grazing permit. Average actual use in the Red Desert Allotment annually has been around 20%. The Hellyers do not propose to use the Dunes, Red Lake, or Boundary Pastures in the allotment. However, even though not proposed, it is physically impossible for livestock to be moved to/from the Pinnacles and Buffalo Hump pastures without crossing through the Dunes pasture. Therefore some trailing use of the Dunes pasture in the far northwestern corner is also a part of the proposed action.

Alternatives

No Action Alternative

Under the no action alternative the request for conversion of sheep use to cattle use, sheep use or a combination of sheep and cattle in the Red Desert Allotment would be denied. Hellyer Limited Partnership would continue to run sheep as their current permit states. Use would be consistent

with the parameters stipulated within the Red Desert Allotment Management Plan (AMP). As written, the AMP stipulates that when active use within the Red Desert Allotment reaches 50%, the AMP will be evaluated and possibly modified.

Affected Environment

The following critical elements (Table 3) and other resource elements (Table 4) of the human environment have been considered. Those items indicated with a "no" are not potentially affected or impacted by the proposed action or alternatives and will not be addressed further in this document.

Table 3. Critical Elements

Critical Element	Yes	No	Critical Element	Yes	No	Critical Element	Yes	No
ACEC	X		Floodplains		X	Water Quality		X
Air Quality		X	Invasive Species		X	Wetlands/Riparian Areas	X	
Cultural/Historic	X		Native American Religious Concerns	X		Wild & Scenic Rivers		X
Environmental Justice		X	T/E Species	X		Wilderness	X	
Farmland, Prime/Unique		X	Wastes, Hazardous, Solid		X			

Table 4. Other Resource Elements

Resource Element	Yes	No	Resource Element	Yes	No	Resource Element	Yes	No
Fluid or Solid Minerals	X		Paleontology		X	Special Status Species - Vegetation	X	
Forested Area/Products		X	Rangelands	X		Vegetation	X	
Geology		X	Recreation		X	Visual Resource Management		X
Land Resources		X	Socio/Economics		X	Wild Horses	X	
Livestock Grazing	X		Soils		X	Wildlife	X	
Off-Road Vehicles		X	Special Status Species - Animal	X				

General Setting

The Red Desert Allotment consists of 243,676 acres of public land, 12,839 acres of state land, and 999 acres of private land, for a total of 257,514 acres and is located in the northeast corner of the Rock Springs Field Office area, spanning Townships 22-26 and Ranges 97-101.

The general climate of the area is semi-arid cold desert. Elevations range from 6,600 to 8,500 feet. Temperatures can range from winter lows of -46 degrees Fahrenheit, to summer highs of 98 degrees Fahrenheit. Average annual temperatures are around 38 degrees. Average annual precipitation of this area is 6 to 8 inches, which is highly variable in timing, location and form.

Rangelands/Livestock Grazing/Vegetation

The assessment area for rangelands/livestock grazing is the JMH CAP planning area. The affected environment for this area was analyzed in the JMH Final Environmental Impact Statement (FEIS) and is incorporated by reference (p. 3-7 – 3-9).

The affected environment for the project area is the Red Desert Allotment. For analysis purposes, the dominant cover types in the Red Desert Allotment have been broken down into the ten categories found throughout the area (Table 5, Figure 1).

Table 5. Vegetation within the Red Desert Allotment

Type	% of Allotment*
Wyoming big sagebrush	59.40
Desert shrub	16.01
Saltbush fans and flats	8.30
Sand dune complex	6.48
Greasewood fans and flats	4.27
Un-vegetated playa	1.79
Active sand dunes	1.68
Exposed rock/soil	1.32
Open water	0.46
Shrub-dominated riparian	0.13

*Note: Percentages may not add up to 100 due to rounding technicalities.

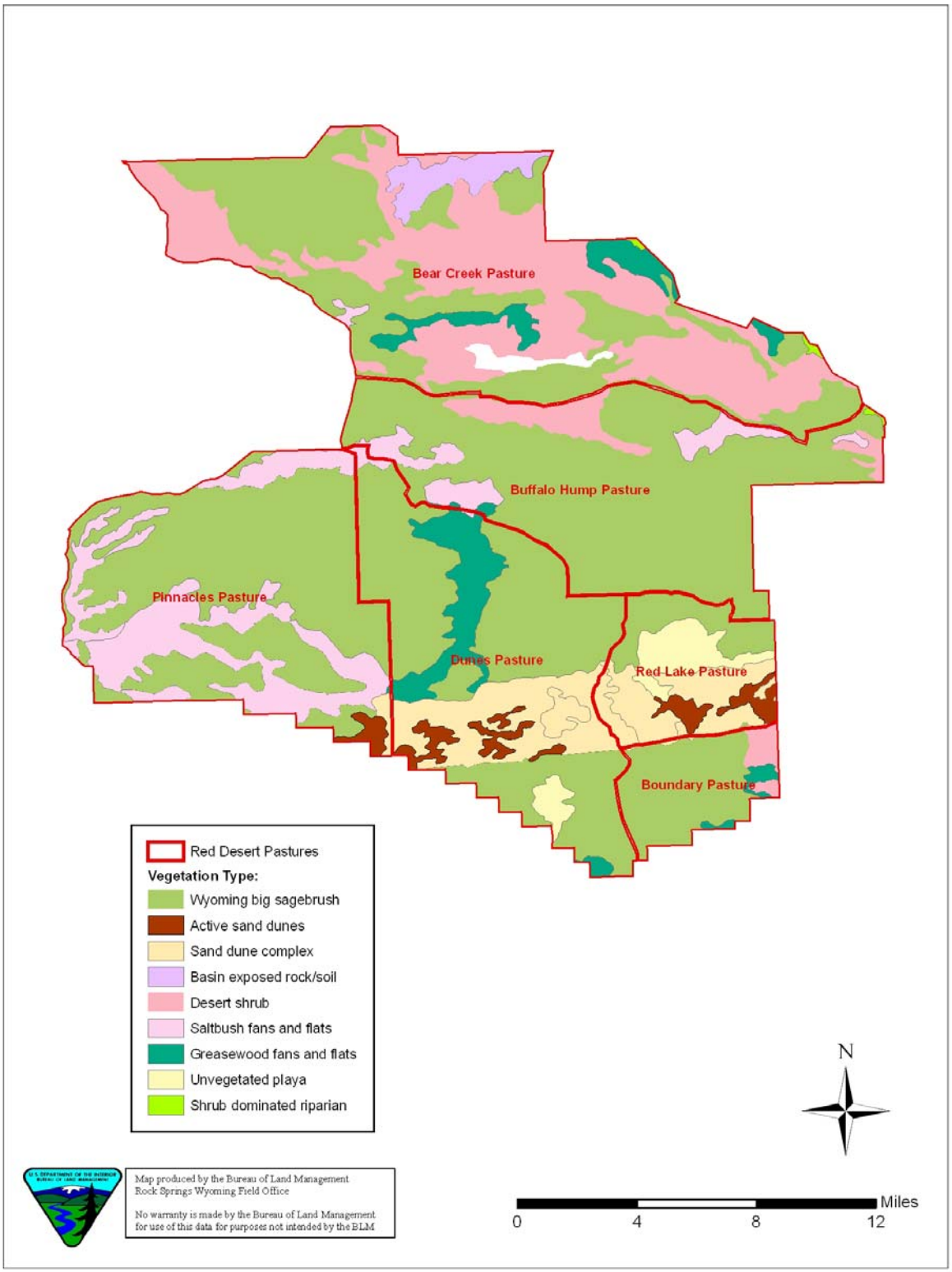

Figure 1. Red Desert Allotment Vegetation.

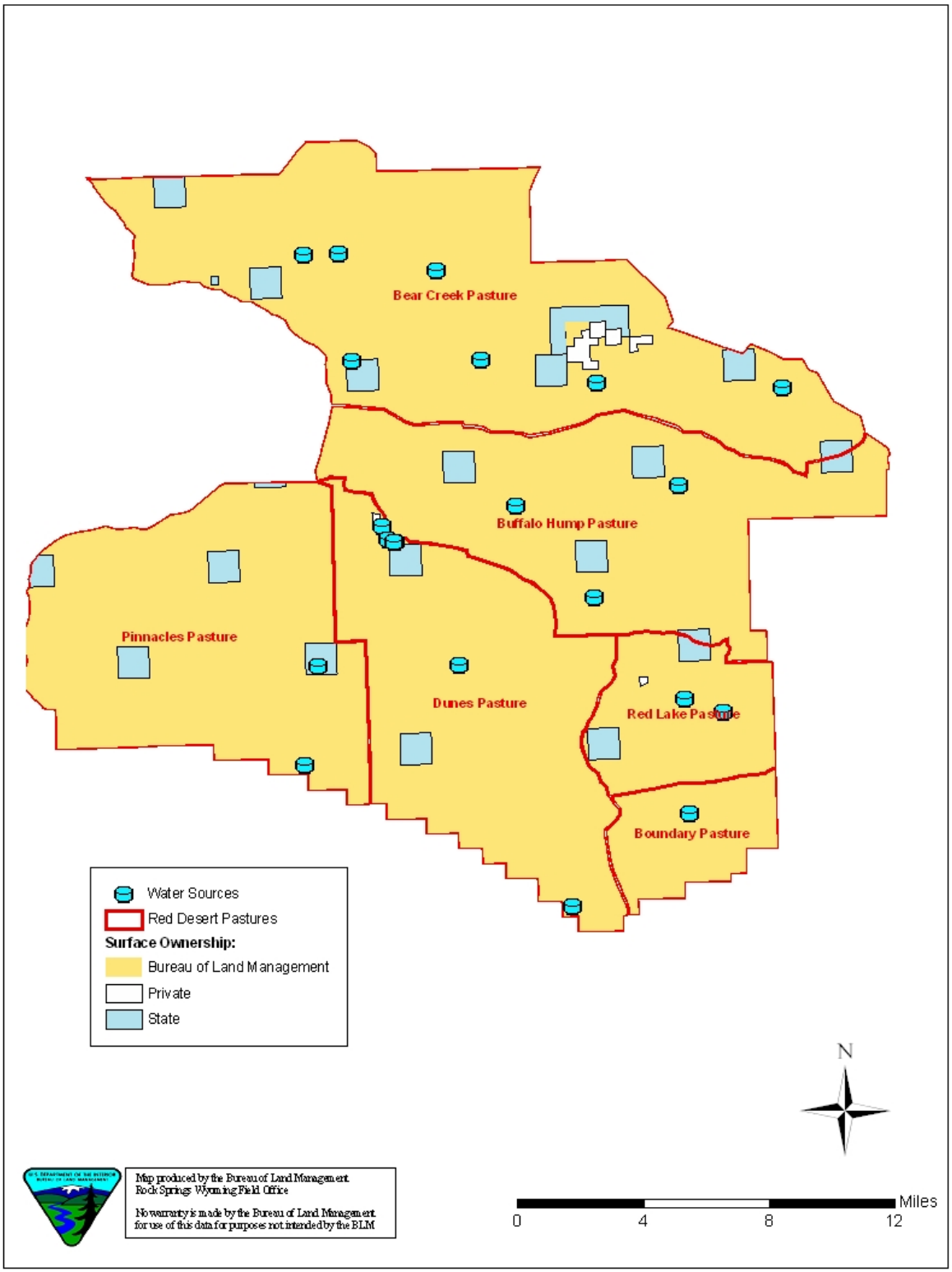

Figure 2. Range Projects, Pastures, and other Water Sources

There are 14 range projects existing in the allotment. These include eight water wells and six pit reservoirs (see Figure 2). There are also other water sources in the allotment created by previous seismic exploration (shot holes and flowing wells) and two pumped wells on State trust lands.

Current information on the active permitted livestock use on the grazing permits is found in Table 1 and the proposed use is found in Table 2. Information on total licensed livestock use in the Red Desert Allotment can be found in Table 6.

Table 6. Current Licensed Livestock Use

ALLOTMENT	OPERATOR	LIVESTOCK		GRAZING PERIOD		% PL	TYPE USE	AUMs
		NUMBER	KIND	BEGIN	END			
Red Desert	Bar X Sheep Company	517	Cattle	05/15	10/14	88	Active	2,289
	Blair & Hay Land & Livestock Company	602	Cattle	05/01	12/15	92	Active	4,171
	Hellyer Limited Partnership	3,660	Sheep	05/01	05/06	100	Trailing	144
		2,300	Sheep	05/01	12/15	91	Active	3,152
							TOTAL:	*9,758*

Wild Horses

The assessment area for wild horses is the Divide Basin Herd Management Area (HMA). The affected environment for this area was analyzed in the JMH CAP FEIS and is incorporated by reference.

Wildlife

The high-elevation, cold-desert vegetation of the allotment is composed of Wyoming big sagebrush/grass, Gardner saltbush, shadscale, greasewood, with some mountain shrub in the uplands, and scattered juniper adjoining the sagebrush habitats. These habitats support many species common to the Intermountain West such as: elk (*Cervus elaphus*), mule deer (*Odocoileus hemionus*), pronghorn antelope (*Antilocapra americana*), greater sage-grouse (*Centrocercus urophasianus*) and many species of Neotropical birds and small mammals. Both eastern short-horned lizards (*Phrynosoma douglasi*) and Great Basin spade-foot toads (*Spea intermontanus*) have been documented in the allotment.

Big Game

Assessment areas for big game are discussed below under individual species. Table 7 provides details for the big game species within their respective herd units. Figure 3 shows big game sensitive habitats. Wyoming Game and Fish Department (WGFD) Herd Units size and population objective levels are set by WGFD for each herd. The herd units do not correspond with the assessment areas, but are shown to give the reader a better understanding of population and habitat parameters.

Table 7. Big Game Habitat Use and Size

Common and Scientific Name	Habitat Use in the Allotment	WGFD Herd Unit	WGFD Herd Unit Size (million acres)	WGFD Population Objective	WGFD Population Est. 2004
Mule Deer (*Odocoileus hemionus*)	General	Steamboat	2.6	4,000	4,400
Elk (*Cervus elaphus*)	Crucial Winter and General	Steamboat	2.6	1,200	1,300
Pronghorn Antelope (*Antilocapra americana*)	General	Red Desert	2.2	15,000	14,670
Pronghorn Antelope (*Antilocapra americana*)	General	Sublette	6.7	48,000	44,700

An area of big game habitat, called the "connectivity area" was established for the original Jack Morrow Hills Coordinated Activity Plan and Draft Environmental Impact Statement effort in 2000 to maintain habitat connectivity between important habitats within the area. The connectivity area is a key wildlife habitat area that connects and includes important big game habitats. The allotment contains a small portion of the connectivity area within its western boundary in the Pinnacles pasture.

Elk

The assessment area for elk (1,853,937 acres) is the Steamboat Herd Unit Area within the Rock Springs Field Office. The allotment contains crucial winter range, winter/yearlong range and winter range for elk. The Steamboat elk herd is a unique component of the wildlife resources of southwestern Wyoming. This elk herd exists in the sagebrush desert ecosystem, which contains very little conifer or aspen cover. Current estimated population counts show that the herd is at approximately 1,300 elk (pers. com WGFD 2007). Elk habitat selection patterns are strongly influenced by security and thermal needs (Thomas, et al. 1979) and therefore any disturbance or pressure may be a larger issue in an open environment than in a forested environment (Sawyer, et al. 2007). In forested habitats, cover is provided by timber stands with vegetation types such as aspen and conifer species. This type of vegetation is severely limited for this herd. The elk population is currently just above objective.

At this time the grazing pressure from livestock is also low. One point of note for the Red Desert Allotment is that a study concluded in 2004 (Sawyer, et al. 2005 and 2007) showed that the Pinnacles Pasture contains the highest densities of elk within the 2 million acre herd area. These densities reach approximately 212 head of elk per square mile in the winter. That equates to 102 AUMs per month outside of the growing season. These densities occur in the allotment in the designated crucial winter range. The elk appear to be primarily utilizing the mixed shrubs within the canyons in the Pinnacles Pasture.

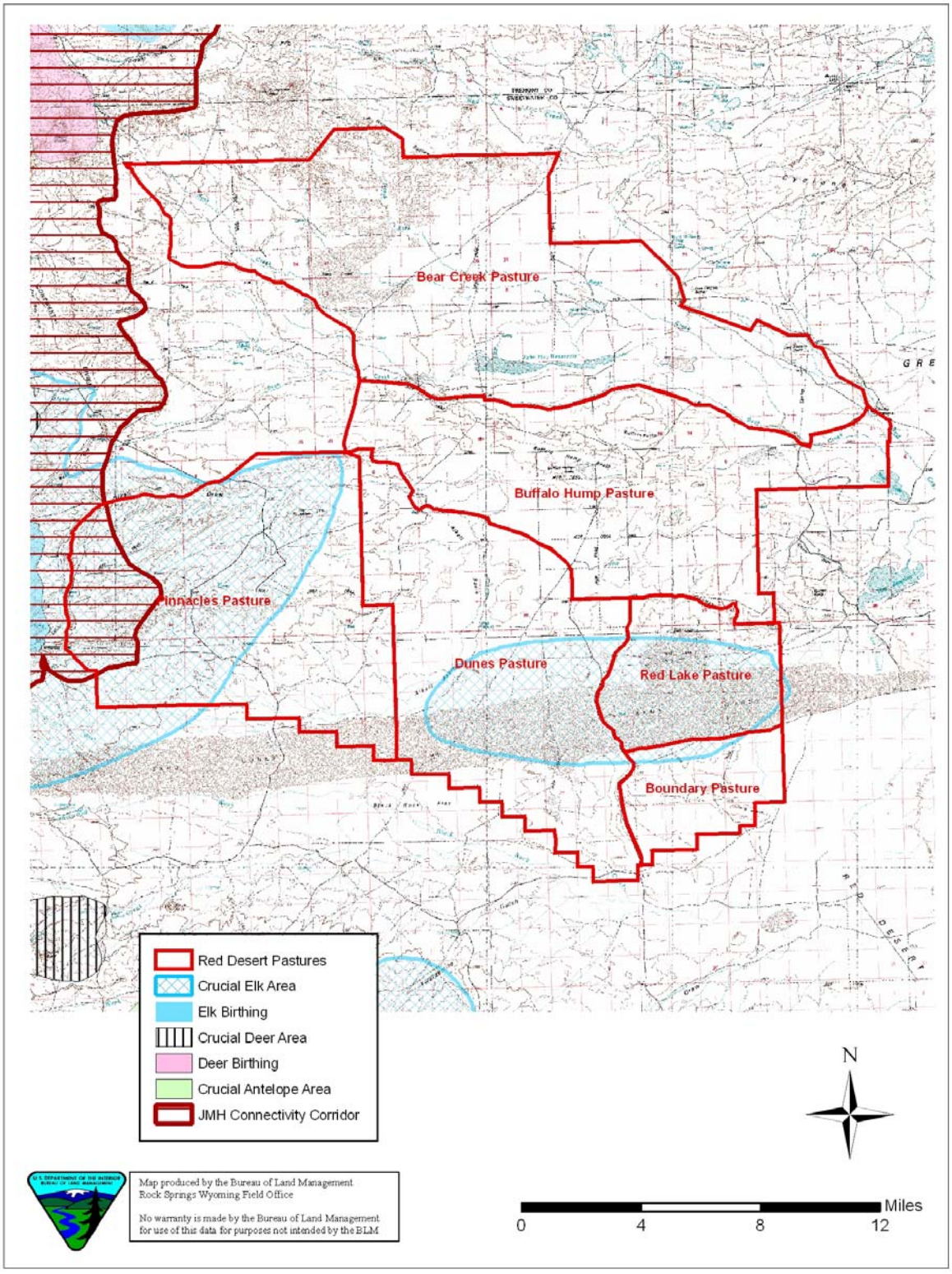

Figure 3. Big Game Sensitive Habitats.

Figure 4 depicts elk use during winter months for the years 2003 and 2004 from the Steamboat Elk Study (Sawyer, et al. 2007)

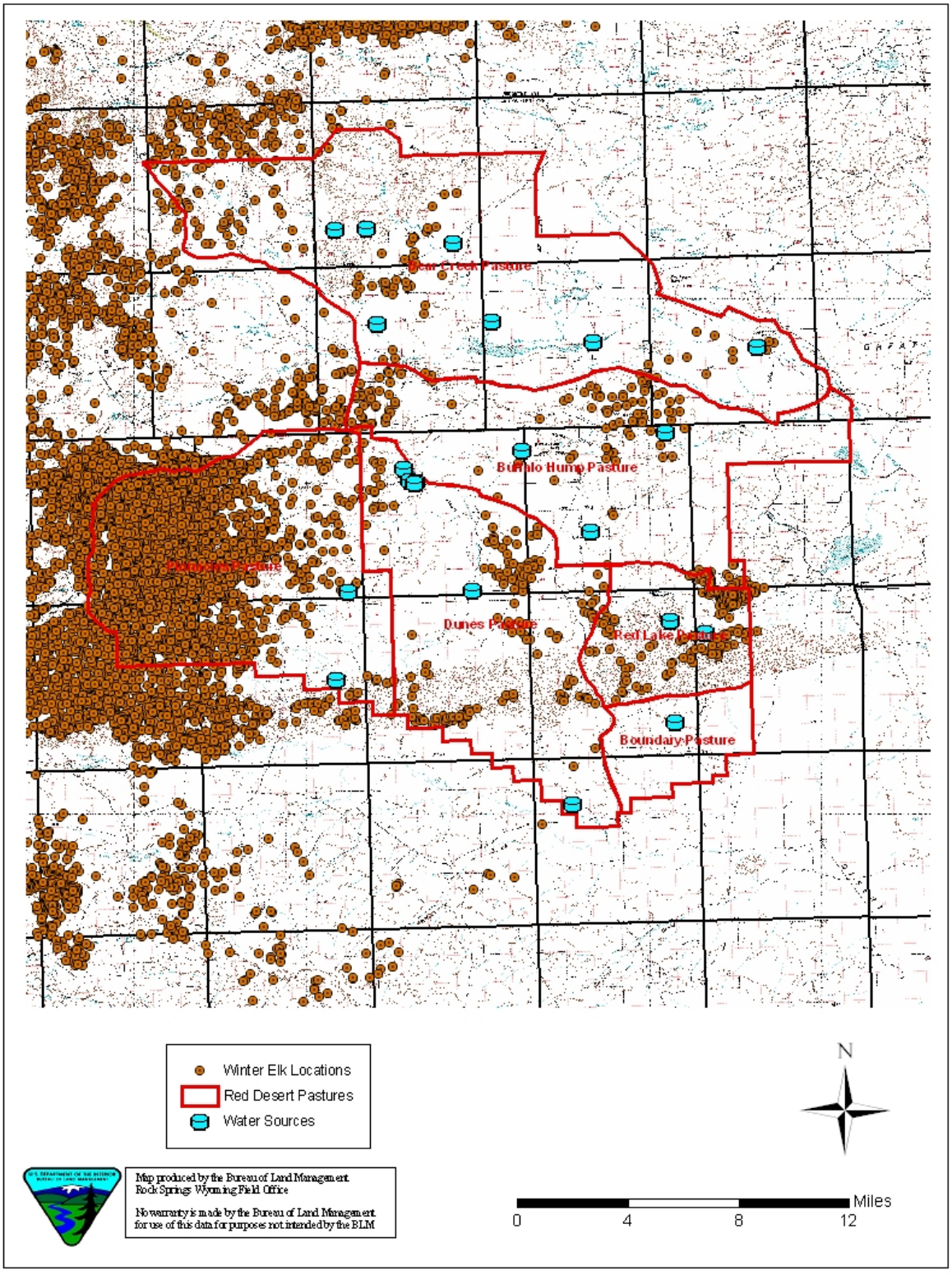

Figure 4. Winter Elk Use in the Red Desert Allotment (2003 & 2004)

Mule Deer

The Steamboat mule deer herd assessment area consists of the Steamboat Mule Deer Herd Unit Area within the RSFO boundary which encompasses 2,060,143 acres. Most mule deer activity within the allotment is dependent on the availability of water and therefore may be dependent upon springs and other sources of water in the allotment. Studies have shown that in arid regions during the driest months, mule deer seldom move more than 1 to 1.5 miles from water (pers comm. T. Ryder 2006). The allotment contains spring, summer, and fall habitat and crucial winter range for mule deer in the Pinnacles and Dunes Pastures. The Wyoming Game and Fish Department estimates the Steamboat mule deer population at 4,400 animals as of 2004 (latest available data). Their current population objective is 4,000 animals.

Pronghorn Antelope

The Sublette pronghorn antelope herd overall population is currently below objective. During the early 1990s, harvest of does and fawns was increased to regulate the increasing population, but the severe winter of 1992–1993 and associated mortalities led to a significant reduction of doe and fawn harvest from 1994 to the present. WGFD estimates for the 2004 population for the Sublette herd is approximately 42,500, which is 9% below the objective of 48,000. For the past few years, drought conditions have led to lower reproduction and somewhat higher winter mortality. Weather and availability of crucial winter range can be an important factor affecting population levels. Severe winters with deep, crusted snow and below-zero temperatures, cause high antelope mortalities. Fences may affect antelope movement and directly and indirectly cause mortality. Antelope habitat is generally represented by water and low-growth (2 to 3 feet) sagebrush in combination with rabbitbrush and bitterbrush. The allotment contains spring, summer, and fall habitat and no crucial winter range for pronghorn. The Wyoming Game and Fish Department does not identify parturition habitat for pronghorn antelope.

The Red Desert pronghorn antelope herd is currently believed to be below herd objective numbers due to low fawn production for at least 10 years. WGFD herd models indicate the herd was still below objective size in 2006 (pers. com. Ryder, WGFD 2006). The allotment contains spring, summer, and fall habitat and no crucial winter range for pronghorn occurs near or within the allotment. The herd objective for the Red Desert pronghorn antelope is 15,000, and as of 2006 the herd population estimate was 14,670 animals.

Other Mammals

The assessment area for these mammals is the allotment boundary. Mammals in the allotment include; coyote (*Canis latrans*), white-tailed jackrabbit (*Lepus townsendi*), mountain cottontail rabbit (*Sylvilagus nuttalli*), porcupine (*Erethizon dorsatum*), red fox (*Vulpes fulva*), striped skunk (*Mephitis mephitis*), various species of rodents, and bats. There are no anticipated effects to other mammals from this proposed conversion and these species will not be discussed further.

Raptors

The assessment area for raptors is the allotment boundary. There are 22 known raptor nests within the allotment boundary. Table 9 lists the raptors that are found in this area.

Table 9. Raptor Species

Common Name	Scientific Name	Habitat
Prairie falcon	*Falco mexicanus*	Low rock outcroppings to tall vertical cliffs
American kestrel	*Falco sparverius*	Dead snags, clay stream banks, rim rock
Red-tailed hawk	*Buteo jamaicensis*	Riparian zones and timbered areas
Swainson's hawk	*Buteo swainsoni*	Dry plains, open foothills, open forest, sparse trees, river bottoms
Northern harrier	*Circus cyaneus*	Wetlands and open fields
Burrowing owl	*Athene cunicularia*	Grasslands and mountain parks near prairie dog towns and steppes, deserts, and prairies
Golden eagle	*Aquila chrysaetos*	Cliffs, ledges, pinnacles
Great-horned owl	*Bubo virginianus*	Cliff holes, rock crevices, trees

There are no anticipated effects to raptors from this proposed conversion and these species will not be discussed further.

Reptiles and Amphibians

The assessment area for reptiles and amphibians is the allotment boundary. The only species of reptile known to occur in the project area are the eastern short-horned lizard (*Phrynosoma douglasi*) and Great Basin spade-foot toad (*Spea intermontanus*). The Great Basin spade-foot toad will be discussed under the Sensitive Species section of this document. There are no anticipated effects to the eastern short-horned lizard from this proposed conversion and this species will not be discussed further.

Special Status Species—Animal

Special status wildlife species include species federally listed as threatened or endangered, proposed for listing, or candidates for listing under the Endangered Species Act. They also include species designated by each BLM State Director as "Sensitive" and those listed, or proposed for listing by a state in a category implying potential endangerment or extinction. BLM is mandated to protect and manage threatened, endangered, candidate, proposed, and sensitive wildlife species and their habitat.

Federal Threatened, Endangered, and Candidate Species

The assessment area for Threatened, Endangered and Candidate species is the allotment boundary. Table 10 provides a list of Threatened, Endangered and Candidate Species considered for this allotment.

Table 10. Threatened, Endangered, and Candidate Wildlife Species that May Occur in the Allotment

Common Name	Scientific Name	Federal Status	Occurrence in Assessment Area
Black-footed Ferret	*Mustela nigripes*	Endangered	No potential habitat
Gray wolf	*Canis lupus*	Nonessential Experimental Population	Historical occupancy and two recent confirmed sightings near the allotment (Moody, WGFD 2003)

Black-footed Ferret

There are three white-tailed prairie dog (*Cynomys leucurus*) towns in or near the allotment boundary. However, all of these prairie dog towns/complexes were determined as being incapable of supporting black-footed ferrets (*Mustela nigripes*) by the WGFD in 2003. That assessment was accepted by the U.S. Fish and Wildlife Service (USFWS) in 2003. Therefore, the Fish and Wildlife Service has declared there is "no potential habitat" for the black-footed ferret and a "no effects" determination for this species in this area. This species will not be given further consideration.

Gray Wolf

The gray wolf (*Canis lupus*) historically occupied nearly all habitat types in North America including the allotment affected by this proposal. Under current federal management as an experimental population by the USFWS, any wolves occurring in the allotment would be removed if they cause conflicts with other land management activities (primarily grazing). Sightings of wolves near this area are thought to be dispersing wolves looking for a territory. There currently are no known resident wolves in the allotment. BLM has made a "no jeopardy" determination for gray wolves and they will not be discussed further.

Wyoming BLM Sensitive Wildlife Species

The assessment area for sensitive wildlife species is the allotment boundary. Instruction Memorandum WY-2001-040 lists the Wyoming BLM sensitive species and management policy. The policy emphasizes planning, management, and monitoring of sensitive species and directs management of these species to avoid or minimize adverse impacts. It is not the intent of the policy to create severe restrictions on activities such that other multiple use activities cannot occur. The policy goals of this instruction memorandum are to:

- Maintain vulnerable species and habitat components in functional BLM ecosystems
- Ensure sensitive species are considered in land management decisions
- Prevent the need for species listing under the Endangered Species Act 1973
- Prioritize needed conservation work with an emphasis on habitat.

Table 11 lists the BLM Sensitive Species that are, or may be found, in the allotment and Figure 5 shows known locations.

Table 11. Rock Springs, Wyoming BLM Sensitive Wildlife Species

Common Name	Scientific Name	Habitat	Affected
Mammals			
Fringed myotis	*Myotis thysanodes*	Elevations less than 7,500 feet in forests and shrublands	No
Spotted bat	*Euderma maculatum*	Desert and coniferous habitats	No
Townsend's big-eared bat	*Corynorhinus townsendii*	Coniferous forest; desert shrubland	No
Pygmy rabbit	*Brachylagus idahoensis*	Dense sagebrush	Yes
White-tailed prairie dog	*Cynomys leucurus*	Plains	No
Wyoming pocket gopher	*Thomomys clusius*	Dry ridge tops; gravelly, loose soil; greasewood	No

Common Name	Scientific Name	Habitat	Affected
Idaho pocket gopher	*Thomomys idahoensis*	Stony, shallow soil	No
Swift fox	*Vulpes velox*	Shortgrass prairie	No
Avian			
Ferruginous hawk	*Buteo regalis*	Basin-prairie shrub, grassland, rock outcrops	No
Greater sage-grouse	*Centrocercus urophasianus*	Basin-prairie shrub, mountain-foothill shrub	Yes
Long-billed curlew	*Numenius americanus*	Grasslands, plains, foothills, wet meadows	No
Burrowing owl	*Athene cunicularia*	Grasslands, basin-prairie shrub	No
Sage thrasher	*Oreoscoptes montanus*	Basin-prairie shrub, mountain-foothill shrub	Yes
Loggerhead shrike	*Lanius ludovicianus*	Basin-prairie shrub, mountain-foothill shrub	Yes
Brewer's sparrow	*Spizella breweri*	Basin-prairie shrub	Yes
Sage sparrow	*Amphispiza billineata*	Basin-prairie shrub, mountain-foothill shrub	Yes
Mountain Plover	*Chadrius montanus*	Areas of low vegetation	Yes
Amphibians			
Great Basin spadefoot toad	*Spea intermontana*	Springs; seeps; permanent and, temporary waters	Yes
Spotted frog	*Ranus pretiosa*	Ponds, sloughs, small streams	No

Source: Wyoming BLM Sensitive Species Policy and List, IB No. WY-2003-001, September 20, 2002.

Pygmy Rabbit

Sagebrush (*Artemesia* spp.), and primarily big sagebrush (*A. tridentata*), followed by grasses and forbs are the preferred forage for pygmy rabbits. Sagebrush accounts for over half their diet in the spring and summer months when herbaceous vegetation is relatively more abundant, but constitutes up to 99% of their diet during winter months (October-May) (Bradfield 1974, Green and Flinders 1980a). The pygmy rabbit occupies areas of sagebrush in loose soils that are typically taller and denser than sagebrush in the rest of the area. Based on recent field reviews, pygmy rabbits appear to be much more abundant than once thought. The assessment area for pygmy rabbits is the allotment boundaries.

Greater Sage-Grouse

The assessment area for greater sage-grouse (*Centrocercus urophasianus*) (sage-grouse) is the designated breeding habitat identified in the JMH CAP and a 2-mile radius around leks identified outside of the Jack Morrow Hills planning boundary. There are 9 leks (strutting grounds) and associated nesting habitat in the Red Desert Allotment. The allotment also contains designated breeding (leks, nesting, and early brood-rearing) habitat for sage-grouse (as identified in the JMH CAP). Data collected in 2003 by the WGFD compared to data collected by Patterson (1952) from sage-grouse leks surveys in the general area have shown a 70% decline in the numbers of males attending leks since 1952. Although no single or combination of causes have been proven, the decline in greater sage-grouse populations is thought to be attributed to a multitude of factors which include but are not limited to: drought; fluid mineral development and associated infrastructure; powerlines; mammalian and avian predators; and a decline in the quantity and quality of sagebrush habitat resulting from livestock grazing, range management treatments, and development activities (Connelly, et al. 2000).

Migratory Birds (Sagebrush Obligates)
The assessment area for migratory (sagebrush obligate) birds is the allotment boundary. The allotment contains habitat for the sage thrasher *(Oreoscoptes montanus)*, loggerhead shrike *(Lanius ludovicianus)*, Brewer's sparrow *(Spizella breweri)*, and sage sparrow *(Amphispiza billineata)*.

Mountain Plover
The mountain plover (*Chadrius montanus*) needs areas with flat terrain and low growing vegetation. This habitat type in the allotment is usually represented by prairie dog towns, Gardner's saltbush flats, and cushion plant communities along wind-swept ridges. There have been many sightings of plover and plover reproduction documented in the Red Desert Allotment.

Great Basin Spadefoot Toad
The following excerpts have been taken from the "*Species Assessment for Great Basin Spadefoot Toad (Spea intermontana) in Wyoming***"** prepared by Rebecca S. Buseck, Douglas A. Keinath, and Michele Geraud. "Loss, destruction, or degradation of water sources utilized could interfere with the recruitment and survival of Great Basin spadefoot toad. Great Basin spadefoot toads utilize a variety of water sources (temporary and permanent, natural and man-made), but it has been documented that the most successful reproductive activities occurred in ephemeral pools with no vegetation growth and no fish predators present (Hovingh, et al. 1985).

"Great Basin Spadefoot toads rely on both aquatic and terrestrial habitat to complete their lifecycle and maintain viable populations. However, both habitats have been heavily impacted by human use range-wide, and may cause declines in Great Basin Spadefoot toad populations (Semlitsch 2000). For example, a decrease in the abundance of *S. intermontana* in the Great Basin drainages over the past century can be attributed to loss of habitat from human-induced habitat modifications which have caused this species, as well as other Great Basin aquatic-terrestrial amphibians, to become confined to tributaries or springs where water quality and habitat have not been intensely altered and/or lost by various operations. Some habitat alterations that have occurred in the Great Basin drainages over the past century include: channelization, bank stabilization, land leveling for cultivation resulting in removal of oxbows, urban development, gravel mining, season long grazing of cattle, and denuding of streams (Hovingh 1997). As these practices continue in the Great Basin and other *S. intermontana* range, available breeding habitat will be reduced. On the other hand, some range improvements actions that create new habitat (i.e., man-made reservoirs)."

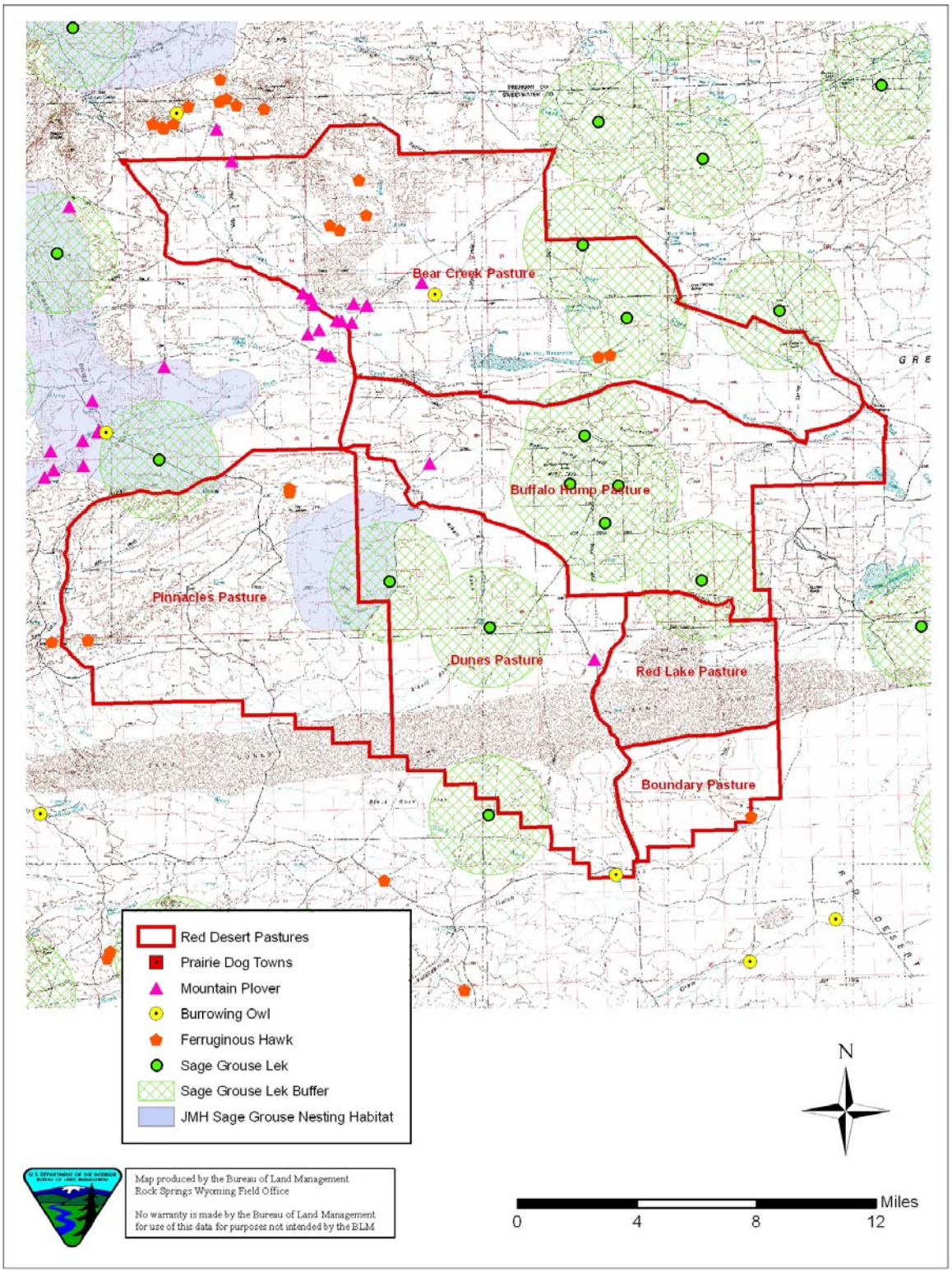

Figure 5. BLM Sensitive Wildlife Species.

Vegetation/Special Status Plant Species

The assessment area for vegetation/special status plant species is the boundary of the Steamboat Elk Herd Unit Area and the Red Desert Allotment. The affected environment for this area was analyzed in the JMH CAP FEIS and is incorporated by reference (p. 3-10 – 3-15). There are two BLM Sensitive Species found within the assessment area. Nelson's milkvetch (*Astragalus nelsonianus*) can be found south and west of the Bush Rim area on gravelly slopes. Large-fruited bladderpod (*Lesquerella macrocarpa*) can be found extensively along Bush Rim and in scattered populations to the west in the Ross Butte area. It occurs on fine textured clays and shales.

Fluid/Solid Minerals

As of May 2007, there were 10 producing gas wells, two water injection wells, and 13 wells in other forms of completion on federal lands. There are currently 22 Approved Permits to Drill or Applications for Permit to Drill, and 30 Notices of Staking in the Red Desert Allotment. There are 21 active wells on state lands.

A portion of the Red Desert Allotment falls within the area analyzed in the Jack Morrow Hills Coordinated Activity Plan. This document anticipated the reasonably foreseeable development (RFD) to total 255 wells in the entire analysis area.

Red Desert Watershed Management Area

The assessment area for the Red Desert Watershed Management Area is the boundary of the management area (Figure 6). The Red Desert Allotment falls within the Red Desert Watershed Management Area. The management objective of this management area is "to manage for all resource values in the Red Desert area with emphasis on protection of visual resources, watershed values, and wildlife resources and to provide large areas of unobstructed views for enjoyment of scenic qualities." Management actions regarding grazing within the management area include that grazing be consistent with the watershed management objectives and that "grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian)."

Cultural Resources/Native American Concerns

The Red Desert Allotment contains hundreds of cultural resources including a relatively high density of traditional cultural properties of importance to Native American tribes in the area.

The proposed action is administrative in nature and does not authorize specific on-the-ground surface disturbing activities. As such it is not subject to compliance with Section 106 of the National Historic Preservation Act of 1966, as amended. All activities which have the capability to affect cultural resources should be consulted upon with the Wyoming State Historic Preservation Officer prior to being approved.

Because the proposed action does not qualify as an undertaking under the Wyoming State Protocol and does not require Section 106 consultation, there is considered to be no effect on cultural and historic resources and they will be dropped from further discussion in this document.

Wilderness Study Areas

The South Pinnacles and Red Lake WSAs fall within the Red Desert Allotment, as well as part of the Alkali Draw/East Sand Dunes WSA (Figure 6). The management objective of all the WSAs is "to retain the wilderness quality and manage the Wilderness Study Areas in the RMP planning area in accordance with the 'Interim Management Policy and Guidelines for Lands Under Wilderness Review,' until Congress acts on designation." No vehicular travel is allowed within WSAs; however, livestock grazing is allowed. Because the proposed action is allowed within WSAs, and is not considered to impact their management, impacts to wilderness values will be dropped from further discussion in this document. No range projects are proposed for the WSA and due to low forage production it is not likely to receive much use by domestic livestock be it either cattle or sheep.

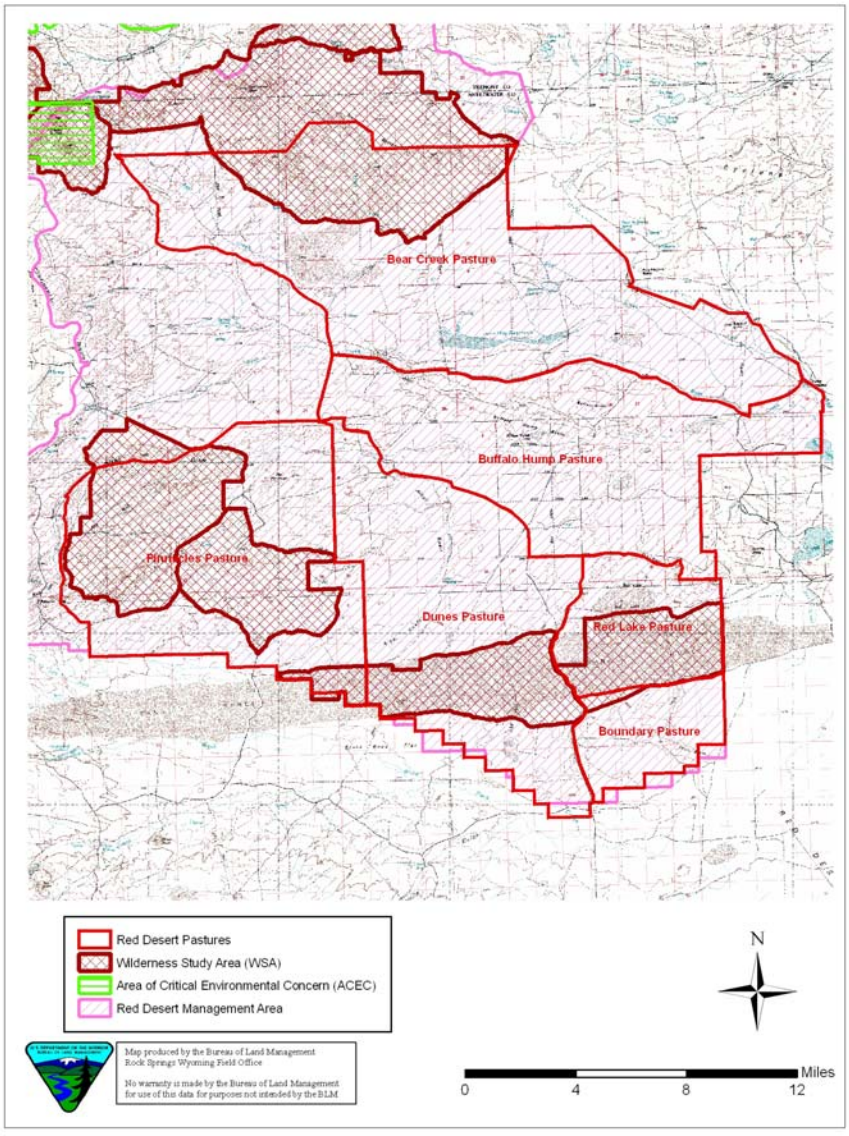

Figure 6. WSAs, ACECs and Other Management Areas

ENVIRONMENTAL CONSEQUENCES/IMPACTS

Proposed Action

Rangelands/Livestock Grazing/Vegetation

The proposed livestock conversion would be from 3,152 AUMs sheep to 1,337 AUMs cattle or any combination of cattle and sheep not to exceed 1,337 AUMs. However, if only sheep are run, the original total of 3,152 AUMs may be used, in this situation the impacts would remain the same as the "No Action" alternative. The cattle or combination of both cattle and sheep conversion could put more pressure on riparian areas and near water developments in the Red Desert Allotment. Cattle are not herded continually as sheep are and tend to look for water and relief from midday heat in the shade and cooler bottoms associated with riparian habitats particularly during late June, July, and August. The presence of cattle in an allotment can be damaging to riparian areas if they are not herded consistently or grazing use is improper. Although there is only one naturally occurring riparian area present (Bear Creek) in the Red Desert Allotment, other water sources (such as wells and reservoirs) have been developed to serve as watering points for livestock, making Bear Creek avoidable.

Cattle generally do not move more than two miles away from water sources (Holecheck, et al. 2004)(Figure 7). With one natural perennial water source and 14 artificial water sources available throughout the 257,000-acre allotment, approximately 132,565 acres (or 52%) of public land within the allotment is available to cattle for use, while approximately 230,567 acres (or 94%) of public land within the Red Desert Allotment is available for use by sheep.

Vegetation in the allotment is also used as forage and cover for a wide variety of wildlife species, is critical for soil protection from erosion by wind and water, and is necessary for long-term soil development and fertility. These uses should not be negatively impacted by the level of conversion in the proposed action.

Because of reduced active use levels (520 AUMs per year for the period of 1994-2006), it has not been possible to adequately assess the function of the current Allotment Management Plan (AMP).

A suitability study conducted in the 1980's, as well as current analysis, shows that the Pinnacles Pasture of the allotment lacks water and vegetative productivity. The BLM and Hellyer Limited Partnership have agreed that the western half of the Pinnacles pasture is not particularly suitable for livestock grazing. The Permittee has agreed that this would not be their primary use pasture, and when use levels of 30-35% are met (see Proposed Action section above) they would remove their livestock from the western half of this pasture. The livestock would be moved to the next pasture in the grazing rotation or to the next permitted allotment. The Red Desert AMP provides for this action, stating: "[b]ecause less than 30% of the active preference is being used within the Red Desert Allotment, the Permittees will have the flexibility to select pastures their livestock use, as long as use is in accordance with the details shown in Table 8 [of the AMP]. When 50% of the total active preference is used in the allotment, the AMP will be evaluated and possibly revised" (see Appendix 1). As mentioned in the Affected Environment section, average actual use has been around 20%.

Cumulative impacts to the assessment area include the 230 range projects existing within the JMH CAP planning area. Of these 230, 18 are water wells, 14 are stock watering troughs, two are spring developments, two are sheep shearing corrals, and 194 are pit reservoirs. The estimated disturbance associated with these projects is 446 acres or 0.07% of the total area, making their cumulative impacts to the area minor.

At the time this analysis was written, known/foreseeable future actions affecting the JMH CAP planning area consist of range project proposals falling within the Continental Peak Allotment, which is directly north of the Red Desert Allotment. This known proposal includes: drilling two water wells and attaching stock troughs to them, developing two existing water wells, fencing off four riparian areas with 3-wire electric fence to protect them from grazing impacts, and installing five pasture boundary fences (also 3-wire electric). If approved, these projects would add approximately 47 miles of fence to an area with little fencing on public lands. It should be noted, this proposal will be fully analyzed in a different environmental document.

Wild Horses

The proposed sheep to cattle use, sheep use, or a combination of sheep and cattle conversion would impact wild horses due to competition for forage. Cattle and horses both consume grasses and forbs for forage. Sheep primarily utilize a combination of browse, forbs, and grasses for forage. Cattle and horse dietary preferences are more similar than those for horses and sheep. Since water is scarce in the Red Desert Allotment, competition for forage would be most apparent in close proximity to water facilities as neither species travel further from water than necessary to graze. An increase in cattle use in the allotment due to a conversion could force wild horse forage utilization and socialization patterns to change, possibly displacing horses to different parts of the HMA, or causing them to form larger herds. The additional cattle in the Red Desert Allotment would compete directly with wild horses for available forage in the acreage near water. Wild horse populations would be maintained within the AML established for the Divide Basin Herd Management Area at 415-600 horses.

Increasing livestock numbers and activity within the Red Desert Allotment could disturb and displace horses throughout the HMA. However, wild horses are highly adaptable. Impacts to them would be mostly limited to the amount of vegetation actually removed by an increase in cattle numbers, oil and gas development, or other surface disturbing activities.

Cumulative impacts from foreseeable future actions could have impacts on the movement, distribution, and population of wild horses. There could be a decrease in forage to support the wild horse AML. In this case, the proposed action would have to be re-analyzed.

Wetlands/Riparian Areas

The soils and vegetation in the area make the Bear Creek stream system sensitive to mechanical disturbance such as hoof action and bank trample, as well as vegetation removal. If the proposed change in the type of livestock creates a change in the grazing pattern around the naturally occurring water sources, the health of the wetland and riparian areas could be adversely affected. Even with proper herd management techniques, the functional condition of the Bear Creek riparian area would need to be closely monitored to avoid degradation of the stream system

functions (see Proposed Action section above). The use levels and timing stipulations as proposed should aid in maintaining the health of naturally occurring riparian systems. The riparian plant communities around the artificial water sources will not be maintained in a healthy condition unless fencing is used to protect them from livestock, wild horses and elk.

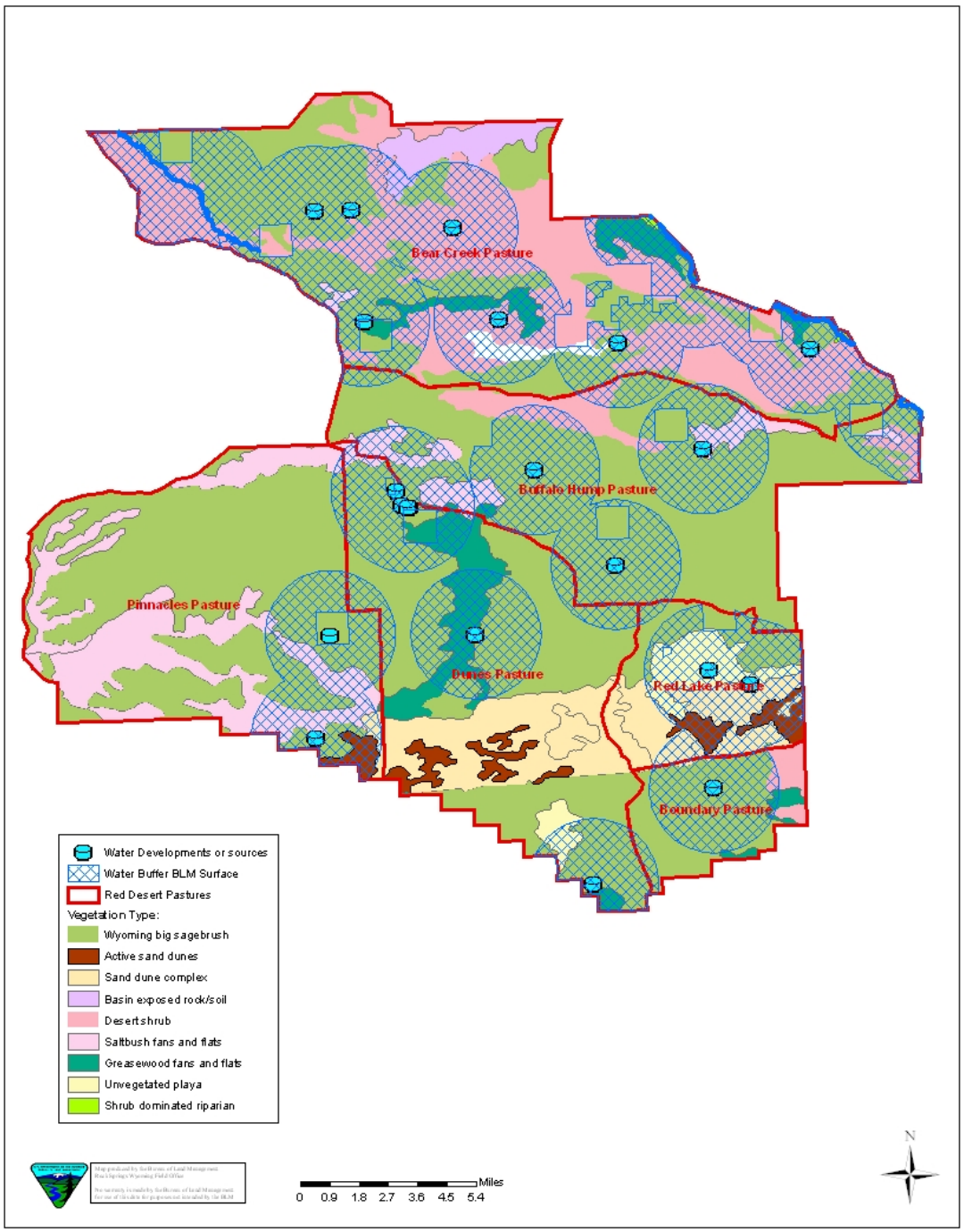

Figure 7. Water Availability and Associated Vegetation

Cumulative impacts to this area were analyzed in the JMH CAP FEIS and are incorporated by reference (p. 4-154). In summary, existing developments have been mitigated to reduce impacts, but activities associated with them would add up cumulatively. These activities could result in increased overland flow, as well as accelerated soil erosion and runoff, which increase sediment and nutrient loads to local channels and could lead to channel destabilization.

The proposed action could add to these cumulative impacts but protective measures under the proposed action; joint utilization monitoring, percent utilization levels, and grazing rotation dates should minimize the cumulative impacts. Disturbance associated with trampling would increase soil erosion and its associated effects and the potential of failure to meet rangeland standards.

Special Status Plant Species

Nelson's milkvetch is found in isolated populations of a few individuals within the Red Desert Allotment. Large-fruited bladderpod is found in populations of hundreds to thousands along the Bush Rim area and in scattered populations of fewer numbers further to the west. They are found on fine clays to gravel slopes and would not be affected by a change in livestock type but could be affected by an increase in numbers due to increased grazing pressure and trampling. However, cattle tend to avoid the clay to gravel slopes where these species are found so impacts to this species are not anticipated due to the proposed action.

Cumulative impacts to this area were analyzed in the JMH CAP FEIS and are incorporated by reference (p. 4-156). In summary, the implementation of the Wyoming Standards for Healthy Rangelands and monitoring efforts provide protection to vegetative resources and help reduce overall effects of surface disturbing activities. Under the Endangered Species Act, special status plant species are protected by avoidance or exclusion.

Fluid/Solid Minerals

There would be minimal impacts to mineral development with the proposed action. Oil and gas reclamation sites would encounter small amounts of grazing which could impact the reclamation efforts. Oil and gas development such as roads and oil pad locations could reduce the number of acres for livestock grazing.

Wildlife

The majority of impacts to wildlife would be from forage competition and negative behavioral interactions. The following discusses the impacts from converting to cattle except where noted. The impacts to wildlife from grazing sheep at existing levels are addressed under the "No Action" alternative.

Big Game

Direct impacts to big game (elk, mule deer, and pronghorn antelope) would result from forage competition and negative behavioral interactions. Cumulative impacts from foreseeable future actions could impact the movements of big game.

Elk

The proposed action would increase use of vegetation in elk crucial winter range located in the Pinnacles pasture. Limiting forage use to a maximum of 35% utilization (regardless of species

of animal using it) of current year's growth on key upland grass species, riparian herbaceous species, or 30% of stems bitten on mountain shrub species, or riparian willows should reduce forage competition and protect the corresponding vegetation resource.

The greatest possibility for adverse effects from this conversion would be to the elk from cattle in the Pinnacles pasture. This area has the highest densities of wintering elk within the 2 million acre Steamboat Herd Area. These densities reach approximately 212 head of elk per square mile in the winter. That equates to 102 AUMs per month per square mile during a time period when vegetation is dormant (April – October). Olsen and Hansen (1977) found significant (P=0.002) overlap (55% ± 30%) between elk and cattle in the Red Desert of Wyoming, while Stewart et al. found strong resource partitioning between elk and cattle during much of the year. The primary elk use in this area is during the winter and spring. This proposal states that the cattle will be moved to the next pasture in the grazing rotation when the utilization levels reach 35% of current year's growth on key upland grass species and riparian herbaceous species, or 30% of stems bitten on mountain shrub species in the Pinnacles pasture, or riparian willows throughout the allotment. The majority of crucial elk habitat occurs within the Pinnacles pasture and is within the boundary of the Jack Morrow Hills planning area. Under the JMH CAP, water developments will not be allowed in crucial big game winter range unless it would benefit the wildlife and range conditions. This combination of the "move on use" and monitoring combined with the lack of water in the Pinnacles pasture should reduce impacts to elk from this conversion.

Cumulative impacts to elk in this area were analyzed in the JMH CAP FEIS and are incorporated by reference (p. 4-158). Elk are very susceptible to disturbance, and displacement occurs with direct habitat loss and persistent disturbance. Mineral development can cause adverse effects to the elk. There is high potential for existing leases in the JMH CAP planning area to block migration corridors and reduce alternative habitats. The proposed action could cause competition between elk and cattle in elk crucial winter range, particularly in the Pinnacles pasture of the allotment. The Jack Morrow Hills planning effort identified the core area as having the highest potential for oil and gas development (JMH CAP FEIS Map 69). This area occurs within the crucial winter range and calving area for the Steamboat elk herd. This small but important area supports the vast majority of the elk wintering (75%) and calving (50%) for the Steamboat elk herd. Should development of this "core" area occur, it is expected to force the elk to utilize other parts of their range more intensively. Based on the two radio collar studies conducted on this herd, there is a high probability the elk would shift their crucial winter range and parturition range use into the Red Desert Allotment creating greater potential for competition between elk and cattle in the allotment and adjustments in livestock numbers may need to be made for the allotment to be able to maintain healthy rangeland standards.

Mule Deer

The proposed conversion may result in some minor impacts, both negative and positive to mule deer. While there is some dietary overlap between deer and cattle, it is a relatively minor amount. There could be some displacement of the deer by the cattle since mule deer generally stay within 1 – 1 1/2 miles of water sources (pers comm. T. Ryder 2006), and cattle stay within 2 miles. There is a greater dietary overlap between sheep and deer, so impacts from competition for food are expected to decrease when cattle are grazed, and increase when sheep are grazed. Impacts to mule deer from grazing would be competition for space, water, and vegetation.

Forage preferences have been documented to be more similar between sheep and mule deer than between cattle and mule deer.

Cumulative impacts to this area were analyzed in the JMH CAP FEIS and are incorporated by reference (p. 4-159 – 4-160). There are few published studies on mule deer reactions to disruptive activities; however, mule deer tend to avoid areas of disruptive activity. Mineral development would have the greatest adverse impacts on mule deer through direct loss of habitat and animal displacement. The JMH CAP has shown a high potential for existing leases to block migration corridors.

Pronghorn Antelope

The proposed conversion should have little to no negative impacts to pronghorn antelope if cattle are being grazed. Olsen, et al. (1977) found that pronghorn in the Red Desert had an 8% dietary overlap with cattle versus a 21% overlap with sheep. There is some potential for positive impacts to pronghorn antelope from the reduced competition for preferred forage types between pronghorn and sheep. Impacts to pronghorn from the proposed action would be limited to competition for space, water, and vegetation.

Cumulative impacts to this area were analyzed in the JMH CAP FEIS and are incorporated by reference (p. 4-159). Currently there are no known studies on pronghorn reaction to disruptive human presence. The biggest impediment to antelope is habitat fragmentation. Mineral development would have the greatest adverse effects on these pronghorn antelope herds through habitat fragmentation.

Special Status Species—Animal

Pygmy Rabbit

Potential impacts of livestock grazing on pygmy rabbits adapted from information presented by USFWS (2003) and Gahr (1993).

Evidence for negative impacts	**Evidence for positive impacts**
1. Documentation of larger home ranges and longer movements during the breeding season in recently grazed versus non-grazed areas.	1. Increased vigor of grass species due to mechanical disturbance by livestock.
2. Documentation of fewer burrows in recently grazed areas.	2. Increase in the relative abundance of sagebrush by removal of competing vegetation through selective livestock foraging.
3. Documentation of a greater proportion of sagebrush relative to forbs in the diet of pygmy rabbits on grazed sites.	3. Possible increase in the diversity and/or abundance of wildlife and vegetation species on grazed areas.
4. Nutritional quality of forage (grasses and shrubs) on recently grazed land is less in the fall, winter, and spring compared to non-grazed areas.	

Evidence for negative impacts	Evidence for positive impacts
5. Livestock can directly limit burrow systems through trampling.	
6. Sagebrush control efforts are more prevalent on grazed lands.	
7. Possible increase in the predator population (e.g., coyotes) through introduction of artificial watering and feeding of livestock.	
8. Possible structural damage to dense sagebrush stands by livestock.	
9. Removal of herbaceous and residual cover of native grasses and forbs by livestock foraging.	
10. Changes in the distribution of invasive weed species.	

Impacts to pygmy rabbit habitat are not expected to occur at the proposed stocking rates.

Greater Sage-Grouse

Grazing has the potential to degrade greater sage-grouse nesting habitat, or improve it under some circumstances (late brood-rearing and fall) by changing the composition, quantity, or quality of vegetation and litter in the habitats used by greater sage-grouse. The difference lies in how the grazing is managed. Breeding (nesting and early brood-rearing) habitat could be impacted by a reduction in habitat quality.

Cumulative impacts to this area were analyzed in the JMH CAP FEIS and are incorporated by reference (p. 4-160). Surface disturbing and disruptive activities such as mineral development and associated infrastructure, as well as construction of rangeland projects (and the associated increase in livestock use in those areas) within the CIAA (there are no range projects proposed in this EA) would constitute the majority of cumulative impacts on greater sage-grouse and their habitat. These activities could result in direct loss of habitat, habitat fragmentation, habitat degradation, and animal displacement. Any one of these impacts would be additive to the already declining sage-grouse populations.

Migratory (Sagebrush Obligate) Birds

These birds, like the greater sage-grouse, are dependent on sagebrush for a significant portion of the year. These birds (sage thrasher, loggerhead shrike, Brewer's sparrow, and sage sparrow) utilize the sagebrush habitats for nesting, foraging, and cover. Once again, impacts to these species (direct, indirect, and cumulative) will be dependent on the grazing management. Brewer's sparrow prefers a closed canopy stand of sagebrush with little to no understory for nesting, while the loggerhead shrike needs very tall sagebrush to utilize as a hunting perch. Very tall sagebrush is a limited resource in the allotment. This proposed conversion could negatively impact loggerhead shrike indirectly if the cattle are allowed to stay in the tall sagebrush for cover. The Brewer's sparrow is not expected to be impacted from the conversion since both cattle and sheep tend to avoid the Brewer's sparrow nesting habitat. The sage sparrow and sage

thrasher should not be impacted directly, indirectly, or cumulatively from this conversion because there are no sagebrush treatments or insect controls associated with this action.

Mountain Plover

Because mountain plover evolved with grazing, impacts to mountain plover are expected to be positive. "It has been suggested that in the principle nesting habitats of the native short- and mixed-grass prairies, heavy grazing by cattle or sheep is a similar landscape-level surface disturbance conducive to plover breeding" (Keinath, Douglas A. and Mathew McGee 2004). Prairie dog towns, saltbush flats and windswept ridges are the primary nest sites for mountain plover.

Great Basin Spadefoot Toad

Given the high likelihood of cattle walking in the limited available water sources it is likely that there will be some negative impacts to Great Basin Spadefoot toad populations in the allotment from this conversion because of additional trampling of egg masses and reduction of water availability.

Red Desert Watershed Management Area

There is an emphasis placed on protecting visual resources, watershed values, and wildlife resources in the Red Desert Watershed Management Area. The proposed action would have no foreseeable impact to visual resources. Watershed values are managed through rangeland and vegetation management and have been addressed in previous sections of this document. Wildlife are also addressed under their section above.

Cumulative impacts to this area were analyzed in the JMH CAP FEIS and are incorporated by reference (p. 4-165). No potential cumulative impacts from existing or reasonably foreseeable development would affect the designation of this management area. Cumulative impacts could occur due to oil and gas development and associated infrastructure in the form of degradation of visual resources, soils, watershed resources, and vegetation caused by development activities.

Mitigation/Monitoring Requirements

Monitoring would continue as part of the grazing permit approval. Joint utilization monitoring, use levels, and grazing rotation are mitigation that will be implemented as part of the proposed action.

No Action Alternative

Rangelands/Livestock Grazing/Vegetation

Under the no action alternative, grazing would remain as currently permitted which allows a mixture of cattle and sheep among several Permittees. A benefit of multi-species grazing is full utilization of the available range resources. If a mixture of sheep and cattle are grazed on the range, the forb and grass species will be utilized more evenly. Also, sheep can be herded away from the water sources once they are finished drinking, moving use away from the areas that are already utilized by cattle, horses, and wildlife.

Competition for available forage would continue in the western half of the Pinnacles pasture; however, historical grazing patterns show that sheep do not use this pasture much, due to its lack of water. They trail through the east half of the pasture where there is a water well but scarcely use the west half of the pasture.

Approval of the No Action Alternative would keep the grazing situation the same as it is currently. Denial of the proposed action limits flexibility by Hellyer Limited Partnership in their herd management, and ability to adapt to the changing markets and varying environmental conditions.

Wild Horses

The no action alternative would allow wild horses in the Divide Basin HMA to utilize the Red Desert Allotment as they are currently without any changes. There would be no additional impacts to wild horses. Competition for forage and water would not increase or decrease. The wild horse population in the Divide Basin HMA would continue to be managed within an Appropriate Management Level (AML) of 415-600 horses. Impacts due to known foreseeable actions would be the same as current conditions.

Wetlands/Riparian Areas

It is anticipated that the riparian area around Bear Creek would remain in its present condition of PFC (proper functioning condition). Impacts due to known foreseeable actions would be the same as current conditions.

Special Status Species—Plant

The BLM special status plants present in the area should remain at their present condition. Impacts due to known foreseeable actions would be the same as current conditions.

Fluid/Solid Minerals

There would be no impacts to the mineral development under the No Action Alternative. Impacts due to known foreseeable actions would remain the same as current conditions.

Wildlife

Under the No Action Alternative there would be no additional impacts to elk. The pronghorn would still have competition with the sheep. The mule deer would not be impacted due to limited utilization of sheep AUMs. Other mammals and reptiles are expected to remain at their current status.

Special Status Species—Animal

Greater sage-grouse would not receive the additional grazing pressure, and riparian areas would not be degraded by additional cattle grazing of the riparian areas at the current time, the majority of the permitted AUMs in the allotment are not being utilized. Pygmy rabbits would not see any additional grazing pressure to their habitat. Sage sparrow, loggerhead shrike, Brewer's sparrow, and sage thrasher) would not see additional impacts from the No Action Alternative. Impacts due to known foreseeable actions would be the same as the current situation.

Red Desert Watershed Management Area

The visual, watershed, and wildlife resources associated with the Red Desert Watershed Management Area would not change under the No Action alternative. Current livestock grazing conditions would persist, continuing the existing condition of the watershed, both upland and riparian. Impacts due to known foreseeable actions would be the same as the current situation.

Mitigation/Monitoring Requirements

No mitigation has been identified under the No Action alternative and monitoring would continue as part of the grazing permit approval.

Residual Impacts

No residual impacts related to the No Action Alternative have been identified.

CONSULTATION AND COORDINATION

On June 22, 2005, a letter was sent out to interested parties concerning this livestock conversion. The interested publics listed below were provided the opportunity to review and comment on the proposed livestock conversion for Hellyer Limited Partnership. The Wyoming State Grazing Board responded, saying they fully support this conversion. The Wyoming Game & Fish Department responded with terrestrial and aquatic concerns. The interested public mailing list for rangeland management related actions on the Red Desert Allotment include:

Bar X Sheep Company
Blair & Hay Land & Livestock Company
Hellyer Limited Partnership
Office of State Lands and Investments-Forestry Division
Western Watersheds Project
Wyoming Department of Agriculture
Wyoming Game and Fish Department, Cheyenne
Wyoming Game and Fish Department, Green River
Wyoming State Grazing Board

The following BLM staff prepared this document:

Teri Deakins	NEPA Conformance
Jay D'Ewart	Wild Horses
Dennis Doncaster	Soil; Water; Air
Jo Foster	Visual Resources; Wilderness / Recreation
Alicia Giles	Range Clerk
Jim Glennon	Botany; Plant T&E
John Henderson	Riparian; Fisheries
Lorraine Keith	Wildlife; Animal T&E
Bob Price	Rangeland Resources
Colleen Sievers	Cultural Resources; Native American Religious Concerns
Thor Stephenson	Natural Resource Specialist
Juliane Zimmerman	Rangeland Resources

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APPENDIX 1

Excerpt from Red Desert Allotment Management Plan

III. Grazing Management

A. Grazing System

1. Narrative

The grazing system, consisting of deferral among six pastures, was designed to be practical and to recognize, as much as possible, historical use areas. The system along with other good grazing management practices will enhance achievement of the AMP objective of maintaining or improving rangeland conditions.

Pastures will be deferred from grazing at least every other year until grasses are seed ripe. Under the present livestock operation of the Magagna Brothers, the Pinnacles Pasture will be deferred until seed ripe every year. (Table 8).

Because less than 30% of the Active preference is being used within the Red Desert Allotment, the permittees will have the flexibility to select pastures their livestock use, as long as use is in accordance with details shown in Table 8. When 50% of the total active preference is used in the allotment, the AMP will be evaluated and possibly revised.

Permittees will be responsible for submitting Actual Use reports. These reports will include the numbers and kind of livestock making use, areas used in the allotment, problems, and practices used by the permittee to either maintain or improve rangeland conditions. Information should be shown on a topographical map when possible.

A meeting between the permittees and the range conservationist responsible for the management of the allotment will take place each winter to discuss the past years use and plans for the upcoming year.

2. Treatments

Treatment A: Rest until seed ripe then graze starting July 16.

Treatment B: Graze season long.

The treatments for each pasture starting in 1984 are specified in Table 8.

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3. Pasture

Pastures are identified on Map A within the Allotment Management Plan file.

Red Lake and Boundary Pastures

These pastures have historically been used by Bar-X Sheep Co. and Leonard Hay. They are used in conjunction with the Bush Rim Allotment and the GL Black Allotment (Rawlins District). The pastures will be deferred from grazing every other year.

Pinnacles Pasture

This pasture has been historically used by Magagna Brothers. Under the present livestock operation the pasture will be deferred every year until seed ripe. Bar-X Sheep Co. and Leonard Hay will use the Alkali Drainage portion of the pasture while trailing to and from the Bush Rim Allotment.

Bear Creek, Buffalo Hump and Dunes Pastures

These pastures will be deferred from grazing every other year. (Table 8).

B. Normal Operation

1. Normal Operation

Table 9. Normal Operation Based on Active Grazing Preference

Permittee	Kind	Period From	Period To	Type Use	AUMs
Bar X Sheep Co.	Cattle	5/1	12/15	Active	2609
Leonard Hay	Cattle	5/1	12/15	Active	490
Blair & Hay L&L Company	Cattle	5/1	12/15	Active	8340
~~Magagna Brothers~~ HELLYER LTD. PARTNERSHIP	Sheep	10/15	12/15	Active	3152
White Acorn Sheep Company	Cattle	5/1	12/15	Active	56

Table 8. Livestock Use by Permittee, Period of Use and the Treatment Designated by Pasture.

Pasture	Permittee	Period of Use and Grazing Treatment					
		Even Year	Odd Year	Even Year	Odd Year	Even Year	Odd Year
Boundary	Bar-X Leonard Hay	B 5/1 to 12/15	A 7/16 to 12/15	B 5/1 to 12/15	A 7/16 to 12/15	B 5/1 to 12/15	A 7/16 to 12/15
Red Lake	Bar-X Leonard Hay	A 7/16 to 12/15	B 5/1 to 12/15	A 7/16 to 12/15	B 5/1 to 12/15	A 7/16 to 12/15	B 5/1 to 12/15
Pinnacles	~~Magagna Bros.~~ Hellyer	A 7/16 to 12/15	A 7/16 to 12/15	A 7/16 to 12/15	A 7/16 to 12/15	A 7/16 to 12/15	A 7/16 to 12/15
	Bar-X & Leonard Hay	Will be allowed to trail cattle through the Pinnacles Pasture along Alkali Creek from and to Bush Rim Allotment.					
Bear Creek	Blair & Hay	A 7/15 to 12/15	B 5/1 to 12/15	A 7/15 to 12/15	B 5/1 to 12/15	A 7/15 to 12/15	B 5/1 to 12/15
	Bar-X & Leonard Hay ~~Magagna Bros.~~ Hellyer White Acorn Sheep Company						
Buffalo Hump	Blair & Hay Bar-X Sheep Co. Leonard Hay ~~Magagna Bros.~~ Hellyer White Acorn Sheep Company	A 7/15 to 12/15	B 5/1 to 12/15	A 7/15 to 12/15	B 5/1 to 12/15	A 7/15 to 12/15	B 5/1 to 12/15
Dunes	Bar-X & Leonard Hay Blair & Hay White Acorn Sheep Company	B 5/1 to 12/15	A 7/15 to 12/15	B 5/1 to 12/15	A 7/15 to 12/15	B 5/1 to 12/15	A 7/15 to 12/15