

Environmental Assessment (EA) DOI-BLM-WY-070-EA14-360

Lease Renewal

Bone Pile Creek
allotment/#22210
Alpha Wyoming Land
Company, LLC
#4907344

Dead Horse Creek Oil Field
allotment/#22113
Iberlin Ranch
#4907188

Government Draw
allotment/#12193
Mankin and Rice
#4907314

Reel (Buck Creek)
allotment/#02330
Damon Reel
#4907556

West Timber Creek allotment/#12091
Berton Fortner
#4907155

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The BLM’s multiple-use mission is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. The Bureau accomplishes this by managing such activities as outdoor recreation, livestock grazing, mineral development, and energy production, and by conserving natural, historical, cultural, and other resources on public lands.

1.0 INTRODUCTION

1.1 Background

The Bureau of Land Management (BLM), Buffalo Field Office (BFO) proposes to renew 10 year grazing leases for the following allotments: Bone Pile Creek (22210), Dead Horse Creek Oil Field (2213), Government Draw (12193), Reel (Buck Draw) (02330), West Timber Creek (12091). For ease of administration, and in accordance with BLM IM 2005-194, the Reel allotment is being renamed the Buck Creek allotment. The allotment will be referred to by this name for the remainder of this document. The allotments are in close proximity to one another in central Campbell County and western Johnson County, Wyoming and approximately 20 miles east to 20 miles west of Gillette, Wyoming. Elevations range from 4,300 to 4,900 feet. The allotments consist of about 36,666 total acres of which 10% is BLM land, 4 % is state land, and 86 % is deeded land. The leases authorizing grazing on these allotments include a total of 5,372 acres of federal land and 679 animal unit months (AUMs) of forage. Grazing use is authorized for cattle on all five allotments. BLM is analyzing these allotments and their grazing leases on a watershed scale in order to evaluate the effects of the proposed action on the wider environment and to better capture cumulative impacts. The BLM parcels associated with each allotment are listed below and shown in Attachment 1:

- **Bone Pile Creek allotment (22210):** T47 N., R72 W., Sec. 2 lot 4, SW $\frac{1}{4}$ NW $\frac{1}{4}$
Sec. 3 SE $\frac{1}{4}$ NE $\frac{1}{4}$
T48 N., R72 W., Sec. 14 SW $\frac{1}{4}$ SW $\frac{1}{4}$
Sec. 15 SW $\frac{1}{4}$ SW $\frac{1}{4}$
Sec. 22 SE $\frac{1}{4}$ NW $\frac{1}{4}$
- **Buck Creek allotment (02330):** T47 N., R69 W., Sec. 20 NE $\frac{1}{4}$ SE $\frac{1}{4}$
- **Dead Horse Creek Oil Field allotment (22113):**
T48 N., R75 W., Sec. 4 lot 4, SW $\frac{1}{4}$ NW $\frac{1}{4}$
Sec. 5 lots 3 and 4
Sec 18 lot 4
T49 N., R75 W., Sec. 31 NE $\frac{1}{4}$ SW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$
Sec. 32 SE $\frac{1}{4}$ NE $\frac{1}{4}$
T48 N., R76 W., Sec. 1 SE $\frac{1}{4}$ SW $\frac{1}{4}$
Sec. 2 SW $\frac{1}{4}$ NE $\frac{1}{4}$
Sec. 12 SW $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$
Sec. 13 NW $\frac{1}{4}$ NE $\frac{1}{4}$, W $\frac{1}{2}$, S $\frac{1}{2}$ SE $\frac{1}{4}$
Sec. 14 E $\frac{1}{2}$ E $\frac{1}{2}$, W $\frac{1}{2}$ SE $\frac{1}{4}$, S $\frac{1}{2}$ SW $\frac{1}{4}$
- **Government Draw allotment (12193):**
T48 N., R76 W., Sec. 3 lots 5, 14, 18, and 19
Sec. 4 lots 13 - 19
Sec. 5 lots 8 - 20
Sec. 6 lots 8 - 19
Sec. 8 lots 1 - 8
Sec. 9 lots 1, 3, 4, 5, 6, and 8

Sec. 10 lots 3, 4, 5, and 10
Sec. 17 lots 5 - 16
T49 N., R76 W., Sec. 31 lots 1 - 4, E½, E½W½
Sec. 32 W½
Sec. 34 SE¼SE¼

○ **West Timber Creek allotment (12091):**

T48 N., R70 W., Sec. 3 E½SE¼, SW¼SE¼
T49 N., R70 W., Sec. 33 E½NE¼, SE¼SW¼

This EA, WY-070-EA14-360 analyzes the impacts of the proposed action on the environment in accordance with the National Environmental Policy Act (NEPA). The current grazing lessee owns or controls the base property associated with their allotment and currently holds the grazing authorization for that allotment. Lease #4907344 was last renewed per Section 416, Public Law 111-88 (Appropriations Act) on March 1, 2010 and expires on February 28, 2020. Lease #4907556 was last renewed per Section 150, Public Law 110-329 (Appropriations Act) on March 1, 2009 and expire on February 28, 2019. Lease #4907188 was last renewed per Section 416, Public Law 111-88 (Appropriations Act) on March 1, 2012 and expires on February 28, 2017. Lease #4907314 was last renewed per Section 415, H.R. 2055 (Consolidated Appropriations Act) on March 1, 2007 and expires on February 28, 2017. Lease #4907155 was last renewed per Section 416, Public Law 111-88 (Appropriations Act) on October 2, 2009 and expires on October 1, 2014, however it is expected that the base lease will be renewed for at least another 5 year period.

The leases issued under the Appropriations Act are not considered fully processed until NEPA analysis has been completed.

The current lessees have each applied for renewal and/or issuance of the grazing lease authorizing grazing on their allotment(s). Per 43 CFR 4110, the previous grazing lessees have preference in retaining the grazing privileges attached to each property. If the proposed action is implemented, a new term grazing lease will be offered to each lessee.

Damon Reel and Iberlin Ranch lease the base properties associated with the Buck Creek and Dead Horse Creek Oil Field allotments from the landowners—John H Baker, et al. and WPX Energy Rocky Mountain LLC and Ad Valorum, respectively. For ease in administration of allotments with base property leases, under this Alternative the leases will be for 10 year terms no matter the term of the base lease. If the base lease is canceled, the lease will be transferred back to the base property owner or the new base lessee for the remaining term of the BLM lease.

The Buffalo Resource Management Plan (RMP) was amended to adopt the *Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the State of Wyoming* (1997) (S&Gs). A formal assessment of the S&Gs has not yet been conducted for the Bone Pile Creek, Buck Creek, Dead Horse Oil Field, and West timber Creek allotments. Although no assessments have been completed, the BLM expects that range monitoring and field visits to the allotments would confirm that the allotments are meeting the S&Gs for healthy rangelands in Wyoming. In 1998

the BFO developed a schedule for evaluating S&Gs. The allotments on this list are all in the “I” and “M” categories, which are highest priority for management and evaluation as described in the WY S&Gs Implementation Plan. Active management of category "C" isolated public lands is at a public cost and management effort largely beyond the scope of generating public benefit; see generally, *Ted Lapis v. U.S.*, 178 IBLA 62 (2009).

A formal *Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the State of Wyoming* (S&G) assessment was completed on the Government Draw allotment. The assessment found that the allotment is meeting all the applicable standards. BLM distributed the final S&G report to all interested persons, and it is available for review at the Buffalo Field Office.

1.2 Need for the Proposal

BLM’s need for the proposal is to determine whether, how, and under what conditions to support the Buffalo Resource Management Plan’s (RMP) goals, objectives, and management actions (1985, 2001, 2003, and 2011) with allowing livestock grazing on public lands managed by the BLM. Allotment information is an integral part of this EA, which BLM incorporates here by reference. Conditional livestock grazing finds support in the RMP, Taylor Grazing Act, FLPMA, and other laws and regulations.

Decision to be Made: The BLM will decide whether or not to approve the proposed action, and if so, under what terms and conditions agreeing with the BLM’s multiple use mandate, environmental protection, and RMP.

1.3 Scoping and Issues

The BLM conducts its decision-making per the requirements of the Council on Environmental Quality (CEQ) regulations implementing the NEPA, the Department of Interior (DOI), and BLM policies and procedures implementing NEPA. NEPA and the associated regulatory and policy framework require federal agencies use the scoping process in their decision-making. This EA received internal scoping, from interdisciplinary resource specialists in the BLM Buffalo Field Office. The identified issues are listed below and have been incorporated in Sections 3 and 4 of this EA.

- How would the proposed action affect current livestock grazing management?
- How would the proposed action impact riparian areas/drainages?
- How would the proposed action impact invasive species?
- How would the proposed action impact sensitive soils?
- Would and how would the proposed action affect any special status species, particularly Greater Sage-Grouse (candidate species)?
- How would the proposal impact cultural resources or lands with wilderness characteristics?
- How can grazing impact native vegetation?
- Whether rangeland health assessment has been completed on the allotment

This EA was sent to interested parties of record and is posted on the Buffalo Field Office (BFO) website to solicit public and cooperating agency comments over a 30-day period: <http://www.blm.gov/wy/st/en/info/NEPA/documents/bfo.html>. The BLM received comments to

assess whether the EA covers the issues raised and adequately addresses their significance. The BLM’s response consists of either addressing public comments in the decision record or results in the preparation of a new EA.

2.0 PROPOSED ACTION (PROPOSAL) AND ALTERNATIVES

2.1 Alternative I – Proposed Action/No Action – Renewal of Leases without Modification

The BLM proposes to maintain and improve land health and enhance habitat conditions on public lands in the BFO stewardship area by maintaining and/or enhancing upland grassland health and sagebrush habitats (species composition and structure) and maintaining riparian, wetland, and aquatic habitats through existing livestock grazing management.

Since no changes are proposed, the Proposed Action Alternative and the No Action Alternative are the same (per BLM IM 2000-022, Change 1 (1999)). The proposed action is to offer a new 10 year term grazing for each of the following allotments: Bone Pile Creek (22210), Dead Horse Creek Oil Field (2213), Government Draw (12193), Buck Draw (02330), West Timber Creek (12091). Each lease will have the same terms and conditions as the expiring leases. Decisions will be written separately for each grazing lease. For ease in administration of allotments with base property leases, under this Alternative the leases will be for 10 year terms no matter the term of the base lease. If the base lease is canceled, the lease will be transferred back to the base property owner or the new base lessee for the remaining term of the BLM lease. Table 1 shows the current authorized use (mandatory terms and conditions) for each lease.

Table 1 Mandatory terms and conditions of the grazing leases affected by the proposed action

Authorization Number	Allotment Number	Allotment Name	Public Acres	% Public Land	Livestock Number	Livestock Kind	Season of Use	AUMs	Type of Use
4907344	22210	Bone Pile Creek	241	100	12	Cattle	3/1-2/28	45	Custodial
4907556	02330	Buck Creek	40	50	1	Cattle	3/1-2/28	6	Active
4907188	22113	Dead Horse Creek Oil Field	1261	100	18	Cattle	3/1-2/28	216	Active
4907314	12193	Government Draw	3590	50	63	Cattle	3/1-2/28	378	Active
4907155	12091	West Timber Creek	240	8	33	Cattle	3/1-2/28	32	Active
Total					Total				

The “other terms and conditions” for each lease are listed below. These ensure the lease conforms to the goals and objectives of the Buffalo RMP Records of Decision (RODs).

- This authorization is subject to cancellation, suspension, or modification for any violation of the regulations at 43 CFR Part 4100, or of the terms and conditions of the authorization

- The terms and conditions of your lease may be modified if additional information indicates that revision is necessary to conform to 43 CFR 4180
- Lessee agrees to allow authorized officers of the USDI-BLM to enter the leased lands at any time for the purpose of inspection
- Please notify BLM if number/kind of livestock or dates of use change

In order to ensure that the BLM lease transfers back to the base property owner or new base property lessee upon cancellation or transfer of the base property lease, the following term will be included in BLM leases where the base property is leased to the BLM grazing lessee (#4907155 and #4907188):

- This lease will be terminated upon notification of cancelation or termination of the base property lease. Once canceled the BLM lease will be transferred to the base property owner or the new base property lessee for the remaining term of the BLM grazing lease.

The proposal will issue new 10-year term grazing leases to the grazing lease applicants. The applicants are currently in good standing with the BLM and meet all qualifications for obtaining a grazing lease under 43 CFR 4110.1 and 4110.2. In accordance with 43 CFR 4130.2(a), “Grazing permits or leases shall be issued to qualified applicants to authorize use on the public lands and other lands under the administration of the [BLM] that are designated as available for livestock grazing through land use plans.” During the 10 year term of the lease or following the expiration of the lease, the lease may be modified if information indicates changes in management are needed to ensure the allotments are meeting or progressing towards achieving the S&Gs.

The applicants are not proposing any projects or other surface disturbing activities in connection to these lease issuances. The BLM will analyze any future range improvement projects associated with these allotments under separate, site-specific analysis.

2.2 Alternative II – No Grazing Alternative

Under this alternative the BLM will not permit livestock grazing on the Bone Pile Creek (22210), Dead Horse Creek Oil Field (2213), Government Draw (12193), Buck Draw (02330), West Timber Creek (12091). Alternative II allows the BLM to place a no grazing provision on any or all of the allotments listed in Table 1, singularly or in any combination, in the most efficient, effective legal means. BLM would cancel the existing grazing leases per 43 CFR parts 4100 and 1600 to eliminate grazing on the allotments.

2.3 Alternatives Considered but not Analyzed in Detail

2.3.1 Greater Sage-Grouse (GSG) Alternative.

BLM IM WY-2012-019 (2012) requires the BLM to address a reasonable range of alternatives in livestock grazing EAs in order to assess the impacts of livestock grazing on Greater Sage Grouse (GSG) habitat and land health. The IM also stipulates that a deferred grazing system alternative should be considered if the size of the allotment warrants it. The size, continuity, and management opportunity of the public lands in these allotments make a **BLM-administered** deferred or rest-rotation grazing system an unreasonable alternative in these specific cases. However, that is not to say that the grazing lessee has not implemented a rotation grazing system themselves. Although Buck Creek allotment is in GSG Core area, the management opportunity

does not warrant a deferred grazing system. In addition, the other allotments fall outside of priority GSG Habitat.

2.4 Conformance to the Land Use Plan, Regulations, and Laws

This proposal does not diverge from the goals and objectives in the Buffalo Resource Management Plan (RMP), 1985, 2001, 2003, 2011, and generally conforms to the terms and conditions of that land use plan, its amendments, and supporting FEISs, 1985, 2003.

3.0 AFFECTED ENVIRONMENT

3.1 Introduction

Bone Pile Creek (22210), Dead Horse Creek Oil Field (2213), Buck Draw (02330), West Timber Creek (12091) allotments are located in Campbell County. Government Draw (12193) allotment straddles the Campbell/Johnson County line. There is legal public access to some parcels of BLM lands within the Dead Horse Creek Oil Field and Government Draw allotments from Schoonover Road. There is no legal public access to the BLM land in the Bone Pile Creek, Buck Creek, or West Timber Creek allotments. The allotments are in the Powder River Basin and Pine Scoria Hills level IV ecoregions, which are unglaciated, irregular and dissected plains. The area's ephemeral or intermittent streams have sandy or silty substrates. The Pine Scoria Hills have rugged, broken land and stone rough hills covered by open ponderosa pine forest or savanna. The allotments lie within the 10-14" and 15 – 17" Northern Plains (NP) precipitation zones, Major Land Resource Area (MLRA) 58B. Mean temperatures in January are 0°F (low) and 36°F (high) and in July they are 52°F (low) and 88°F (high). (Chapman, et al., 2004)

Livestock grazing, wildlife use, and oil and gas production are common area land uses. Recreation, primarily big game hunting, may also occur. The public lands in these allotments are clearly lacking in wilderness characteristics due to their small size (less than 5,000 acres).

The proposed action does not affect the following resources, which receive no further analysis:

Air Quality	Mineral Resources	Visual Resource Management
Areas of Critical Environmental Concern (ACEC)	Native American Religious Concerns	Water Quality and Prime or Sole Source of Drinking Water
Environmental Justice	Paleontology	Wetlands and Riparian Zones
Prime or Unique Farmlands	Recreation	Wild and Scenic Rivers
Flood Plains	Soils	Wilderness Values
Hazardous or Solid Wastes	Traditional Cultural Properties	

3.2 Livestock Grazing

In 1985, BLM established three categories for allotments to identify areas where management was potentially needed, as well as to prioritize workloads and the use of range improvement funds. The categories classify allotments as Improve Existing Resource Conditions (I), Maintain Existing Resource Conditions (M), or Custodial Management (C) (USDI 2008). The Bone Pile Creek, Dead Horse Creek Oil Field, Buck Draw, West Timber Creek allotments are category "C" allotments, meaning their management is minimal in nature, due to the small amount of public land within the allotments. The BLM's rationale for this classification is that there are no identified resource problems, and the size and continuity of the public land is not conducive to

more intensive management by the BLM. The allotments have low potential for yielding a positive return on public investment in management or rangeland project development. The Government Draw allotment is a M category allotment. BLM’s management goal is to maintain existing conditions and management in the allotment. M category allotments have a higher level of BLM management opportunity than C allotments.

The allotments have been grazed for numerous years. Current livestock grazing season within all allotments is shown in Table 3. The total AUMs available for grazing on public lands within the allotments is 679 AUMs. The allotments consist primarily of private lands. Table 2 describes the current breakdown of land ownership.

Table 2-Land ownership

Allotment #	Allotment Name	Surface Ownership*	Acres	Percent
22210	Bone Pile Creek	BLM	241	1.5
		Private	16,982	98
		State	98	0.5
		Total	17,321	
02330	Buck Creek	BLM	40	1
		Private	2,340	77
		State	660	22
		Total	3,040	
22113	Dead Horse Creek Oil Field	BLM	1,261	20
		Private	5,147	80
		State	0	
		Total	6,408	
12193	Government Draw	BLM	3,590	51
		Private	2,810	40
		State	630	9
		Total	7,030	
12091	West Timber Creek	BLM	240	8
		Private	2,627	92
		State	0	
		Total	2,867	
		Total (all allotments)	36,666	
		BLM (all allotments)	5,372	10
		Private (all allotments)	29,906	86
		State (all allotments)	1,388	4

*Note: Data in this table were estimated by BLM and compiled using ArcGIS data, thus acreages on private and state land are approximate.

3.3 Soils

Ardisols and Entisols are the most common soils in the allotments. Ardisols are mixed alluvium derived from andesite, limestone, and quartzite. Ardisols are typically well drained with a low runoff classification and an Ardic moisture regime. Entisols are derived from sandy eolian

material and have an excessively drained drainage class. They have a slight hazard of erosion and are commonly used as native rangelands.

The principal soils found on public lands consist of the following soil map units:

217-Theadle-Shingle loams, 3 to 30 percent slopes

233-Ustic – Torriorthents, gullied

684-Samday-Shingle-Badland complex 10 to 45 percent slopes

709-Theadle-Shingle loams 3 to 30 percent slopes

716-Theedle loam, gullied 3 to 45 percent slopes

A description of these soils is found in the (Soil Survey Geographic (SSURGO) database for Campbell County, Wyoming, Southern Part , 2011), (Soil Survey Geographic (SSURGO) database for Johnson County Area, Wyoming, Northern Part, 2011) published by the US Department of Agriculture Natural Resources Conservation Service (NRCS).

3.4 Vegetation

The principal range sites or ecological sites on BLM land in the allotments are Loamy, Shallow Clayey and unclassified. Other range sites or ecological sites found in the allotment include Clayey, Sands, Sandy, and Shallow Loamy. The primary vegetative type throughout the allotments is Wyoming big sagebrush type. Vegetation found on these sites includes: Wyoming big sagebrush, silver sagebrush, winterfat, rabbitbrush, green needle grass, needle-and-threadgrass, western wheatgrass, bluebunch wheatgrass, prairie junegrass, Sandberg bluegrass, bluegrama, little bluestem, asters, paintbrushes, clovers, biscuitroot, western yarrow, fringed sagewort, Hoods phlox, buckwheats, and numerous other grasses and forbs. Most of the growth in these vegetation types occurs in May and June. According to the ecological site description for loamy sites (2011), as this site deteriorates species such as blue grama and big sagebrush increase and cool-season grasses such as needlegrass, needle-and-threadgrass, and rhizomatous wheatgrasses will decrease in frequency and production. Annual bromes will commonly increase with improper management as well. Vegetation types such as mixed grass prairie, ponderosa pine intact, and greasewood fans and flats are also present in the allotments. A description of each ecological site may be found on the NRCS Ecological Site Description webpage.

Currently BLM authorizes 679 total AUMs in the allotments. BLM calculated the AUMs using light-to-moderate stocking rates, per the Land Planning and Classification Report of the Public Domain Lands in the Powder and Missouri River Basin (U.S. Department Interior- Bureau of Land Management, 1956).

3.5 Noxious Weeds and Invasive Non Native Plant Species

Invasive species and noxious weeds exist in the affected environment. The primary species in the area are downy brome (*Bromus tectorum*) and to a lesser extent, Japanese brome (*Bromus japonicus*). Downy brome, also referred to as cheatgrass, is present throughout the area but primarily exists along two track trails and other areas of disturbance. Downy brome is an invasive nonnative annual grass that can degrade native plant communities. Presently downy brome is not a major component of the allotments' native plant communities. BLM will aggressively treat current and future noxious weeds which pose a risk to native vegetation on public lands using an integrated pest management (IPM) approach.

3.6 Water Resources

The area occupied by the allotments has 2 principal drainages. Dead Horse Creek runs through the Dead Horse Creek Oil Field allotment and Caballo Creek runs through the Bone Pile Creek allotment. There are two very short segments (approximately 141 feet total) of these two creeks that cross BLM lands. All the other drainages on BLM land in the allotments are ephemeral or intermittent. This means that water flow generally occurs during the wet season (50% of the year or less) so water typically only flows in these channels during times such as spring runoff. Water ceases to flow in these channels during drier periods but may still continue to run underground. As such, there may or may not be riparian vegetation associated with intermittent stream channels. Also, they are not a reliable source of water for livestock or wildlife. The area is part of the Upper Powder River drainage and the Upper Belle Forche drainage.

3.7 Wildlife

3.7.1 Migratory Birds, Special Status Species, Threatened and Endangered Species, and Small Mammals

BLM conducted wildlife evaluations including comparison of past and current aerial imagery and review of wildlife geospatial datasets (available at BFO). They assessed the occurrence of selected wildlife species and their habitats, and evaluated the anticipated effects associated with issuing these grazing leases on the Named, Named, and Named Allotments. The evaluations included selected individual species or species groupings that are ecologically, economically, or socially important. Tables A.1 and A.2 in the appendix summarize the affected environment for selected wildlife.

3.7.2 Candidate Species (GSG)

This EA discusses GSG in detail because they are a candidate species, currently warranted for listing under the Endangered Species Act (U.S. Fish and Wildlife Service(USFWS), 2010)and are of heightened management concern in the BFO. GSG are also a Wyoming BLM sensitive species and a Wyoming Game & Fish Department (WGFD) Species of Greatest Conservation Need (SGCN). GSG seasonal habitat is present on BLM lands in the all allotments There are 14 occupied GSG leks within 2 miles of the allotments and 5 of those reside within allotment boundaries (Reference Table 4 below for all leks within the associated allotment boundaries). The Buck Creek Allotment does fall within a GSG Core area although no leks have been identified within this allotment and the BLM surface does not constitute a significant portion of the allotment acreage.

Table 3. Greater Sage-Grouse leks and their associated Allotments.

LekName	Classifica	Associated Allotment
Lynde	Occupied	Bone Pile Creek
Napier	Occupied	Government Draw
Schoonover	Occupied	Dead Horse Creek Oil Field
Morgan Draw	Occupied	Dead Horse Creek Oil Field
Rocky Butte	Occupied	West Timber Creek

3.7.3 Big Game

Big game species occurring in the EA area include Elk, pronghorn, white-tailed deer, and mule deer. Table 4 summarizes WGFD big game seasonal range data for the allotments.

Table 4. Big Game Seasonal habitat provided in each Allotment

Species	Buck Creek	Bone Pile	Government Draw	Dead Horse Creek	West Timber Creek
Mule deer	Yearlong	Yearlong	Yearlong	Yearlong and Winter Yearlong	Yearlong
Pronghorn	Winter Yearlong	Yearlong and Winter Yearlong	Winter Yearlong	Winter Yearlong	Winter Yearlong

Yearlong use is when a population makes general use of suitable documented habitat sites in the range on a year-round basis, but animals may leave the area under severe conditions. Winter-yearlong use is when a population or a portion of a population of animals makes general use of the documented suitable habitat sites in this range on a year-round basis, but during the winter months there is a significant influx of additional animals into the area from other seasonal ranges. As of the most recent available report, (Wyoming Game and Fish Department(WGFD), 2011b), populations of mule deer and pronghorns are below their WGFD objective.

3.7.4 Raptors

Raptors use the Allotments for breeding, foraging, wintering, or migration. Common raptor species frequenting the allotments include golden eagle, northern harrier, red-tailed hawk, Swainson’s hawk, American kestrel, short-eared owl, prairie Falcon, burrowing owl, bald eagle and great-horned owls. Raptors prey upon small mammals, reptiles, and fish. Their survival and reproductive success depends on the availability and abundance of these food sources.

3.8 Cultural and Historic Values

Class III inventory for cultural resources has not occurred on the majority of land within the allotments, although the Wyoming Cultural Records Office database revealed that inventories related primarily to oil and gas development and highway projects have discovered cultural sites.

- The Bone Pile Creek Allotment contains 25 known cultural sites, 1 of which is eligible for the National Register of Historic Places, 17 are not eligible and 7 are unevaluated.
- The Reel Allotment contains 1 cultural site that is unevaluated for the National Register of Historic Places.
- The West Timber Creek Allotment contains 21 known cultural sites, 4 of which are eligible for the National Register of Historic Places and 17 are not eligible.
- The Dead Horse Creek Oilfield Allotment contains 13 known cultural sites, 11 of which are not eligible for the National Register of Historic Places and 2 are unevaluated.
- The Government Draw Allotment contains 42 known cultural sites, 1 of which is eligible for the National Register of Historic Places, 39 are not eligible and 2 are unevaluated.

There may be many more unrecorded cultural sites, some which may be eligible for listing on the National Register, within the allotments.

3.9 Socioeconomics

Ranching is a strong component of local society and has a historical value, as grazing has occurred in northeast Wyoming since the late 1800s. According to the U.S. Department of Agriculture Agricultural Census (U.S. Department of Agriculture, 2010), Wyoming ranked 24th in the nation in the value of sale of cattle and calves, and 4th for value of sale of sheep and lambs. Within Wyoming, sales of cattle and calves ranked first in market value of agricultural products sold, with sheep and goat sales ranking 5th. These statistics show that ranching is a key component in both Wyoming and the nation's agricultural industry. The sale of livestock is linked to the commodity value of public rangelands. Public lands are an essential part of many ranch operations in the Buffalo Field Office, as they are intermingled with and grazed in conjunction with private and state lands. The BLM grazing lease helps maintain the successful functioning of the ranch operation and support the cultural lifestyle of the lessee.

Public land grazing contributes to the State of Wyoming's revenue through "payment in lieu of taxes" by the Federal government. All of the grazing allotments managed by the Buffalo Field Office were established according to provisions of Section 15 of the Taylor Grazing Act. Receipts from grazing on Section 15 lands are distributed as follows: 50% goes to the federal government for range betterment projects, and 50% is returned to the state government. The grazing fee is \$1.35 per animal unit month (AUM) on public land, \$5.13/AUM on Wyoming State Lands, and an average of \$17.60/AUM on private lands. The grazing leases analyzed in this EA generate approximately \$917 in federal grazing fees each year.

4.0 ENVIRONMENTAL EFFECTS

4.1 Direct, Indirect Residual Effects, Mitigation Measures, Cumulative Effects

4.1.1 Livestock Grazing

Alternative I-Proposed Action/No Action Alternative

The direct, indirect, and residual impacts associated with livestock grazing include nutrient cycling, physical damage to vegetation, trailing along fences, trampling and heavier grazing use at salted areas. These impacts are likely to continue upon issuing new leases. The proposed action would allow for the grazing lessees to continue grazing on their respective grazing allotments. Livestock would continue to use up to 679 public AUMs annually; see Table 1. Range vegetation inventory (DOI BLM, 1956) data, along with monitoring data from 2013 (Bone Pile Creek allotment), 2013 (Buck Creek allotment), 2012 (Dead Horse Creek Oil Field), 2012 (Government Draw allotment), and 2014 (West Timber Draw allotment) indicate adequate forage is available in the allotments to support the proposed number of livestock, as well as provide for wildlife use, while withstanding the effects of that use. The new grazing leases authorize the same number and kind of livestock and season of use relative to each BLM parcel as the previous leases. This action is not proposing any changes to grazing management. The BLM does not expect the issuances of the grazing leases to have any effect on range management.

BLM has identified the scope of the proposed action and alternatives as well as the cumulative effects affected area (CEAA) for livestock grazing as the area within the allotment boundaries. BLM anticipates the direct impacts to last for the life of the grazing lease (10 years), while the indirect and long term impacts may persist.

Cumulative Incremental Effect from the Proposal: The incremental loss of forage available for livestock will occur with the addition of grazing to the past, present, and reasonably foreseeable actions. As long as mitigation and monitoring techniques are implemented to ensure new roads and trails from recreationists and hunters are not made, and fires are suppressed, the loss of vegetation available for livestock should be negligible. Additionally, oil and gas development and rights-of-way may be permitted, thus decreasing the amount of forage available for grazing. However, with best management practices (BMPs) being implemented, their effects should be negligible.

Alternative II-No Grazing Alternative

FLPMA requires the BLM to manage public lands and resources by the principles of multiple use and sustained yield and recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber. FLPMA also requires the BLM, except in emergencies, to give 2 years' notification when cancelling, in whole or in part, an authorization for domestic livestock grazing to devote the associated lands to another public purpose, including disposal. The Buffalo RMP resource management decision reads that livestock grazing is allowed on all area BLM lands except on about 6,000 acres where it is incompatible with other resource uses or values.

There are no fences or natural barriers separating BLM and non-BLM lands. At this time, fencing out the public lands is not practical or cost effective. If extraordinary circumstances arise, such as the identification of an endangered plant or damageable cultural resource on the site, fencing may be a greater priority, and the BLM will address the matter in a separate analysis. If the public lands are not leased, and subsequently not fenced, any livestock use occurring thereon is unauthorized. Selecting this alternative will affect how the adjacent private and state lands are grazed because the lessee must keep livestock off public lands through herding or fencing, or else be in violation of federal grazing regulations. The mixed ownership pattern in the BFO resource area makes herding difficult, in addition to the fact that herding does not ensure that public lands are not grazed. A rider needs to remain with livestock at all times. Because it is not economically feasible for the BLM to fence all its land parcels, fences will likely be on private land, fragmenting the area and making BLM unable to stipulate wire spacing to facilitate wildlife movement. Most four-strand fences on private land have a top wire of 46-48 inches with 10-12 inch wire spacing and all wires are barbed. In the absence of fences, the BLM must constantly supervise the public lands to assure they are not grazed.

BLM identified no adverse direct, indirect, or residual impacts resulting from BMP livestock grazing which would warrant cancellation of all grazing on these allotments. The Buffalo RMP allows for adjustment of forage allocation as needed, based on evaluation of monitoring, field observations, or other data. Additionally, changes in grazing practices can be effective in mitigating impacts without a corresponding reduction in forage allocation.

Cumulative Incremental Effect from the No Grazing Alternative: Reduced surface disturbance would occur with the removal of grazing. The incremental impacts would be less than those expected under the proposed action.

4.1.2 Soils

Alternative I-Proposed Action/No Action Alternative

Grazing can exert both beneficial and detrimental direct, indirect, and residual effects on a soil resource. The main effects that grazing has on the soil resource is removal of aboveground vegetation and hoof action, potentially leading to increased erosion, increased runoff, reduced infiltration rates and increased bulk density (soil compaction) (Holechek, Pieper, & Herbel, 2004, p. 379). Most of the compaction and erosion will occur where cattle tend to congregate which may include areas along trails, fences and near watering locations. This compaction leads to lowered rates of water infiltration thus leading to high rates of surface runoff and greater soil erosion.

From a positive standpoint, large quantities of dung and urine are deposited in the allotments adding nutrients and organic matter to the soil (McNaughton, 1979). Hoof action benefits the soil resource by improving nutrient cycling by incorporating mulch into soil surface where it can be broken down more quickly by soil organisms (Holechek, Pieper, & Herbel, 2004, p. 379). Livestock grazing can loosen the soil surface during drying periods, remove excess vegetation that may negatively affect net carbohydrate fixation and increase water transpiration rates, and speed up the development of humus in the soil (Holechek, 1981). Because no changes in the current management are being implemented under the proposal, impacts to the soil resource would remain the same and BLM expects no changes from the current state of the resource.

The CEAA for soils is the area inside the grazing allotment boundaries, selected by BLM due to the scope of the proposed action and alternatives. BLM anticipates the direct impacts last for the life of the grazing lease (10 years), while the indirect and long term impacts may last longer.

Cumulative Incremental Effect from the Proposal: The effects of the proposed action, when added to the reasonably foreseeable actions, should be minimal because range health objectives are used in livestock grazing management, hunters and recreationists will be monitored for land abuse, fire suppression will mitigate the severity of fire impacts, and BMPs will be used for new oil, gas and ROW activities. The incremental effects may include soil erosion and soil compaction along new trails made from livestock, roads and trails used by hunting and recreationists, new oil and gas roads, and areas where fires occur. Severity of these impacts would be dependent on the amount of hunter and recreationist use on the allotments, number of oil/gas/ROWS permitted, and the intensity/size of the wildfires.

Alternative II-No Grazing Alternative

With the removal of grazing from the allotments, forage would not be removed by livestock. Standing vegetation and litter would increase. The increase in cover may reduce runoff and erosion. With the removal of livestock from the allotment a decrease in compaction and increase infiltration is anticipated (Pluhar, Knight, & Heitschmidt, 1987). The allotment's nutrient cycle would likely change. Cattle increase soil nutrients by depositing excrement on the soil surface. However, with improper management, they may decrease nutrients by consuming and permanently removing plants that put nutrients into the soil system.

Cumulative Incremental Effect from the No Grazing Alternative: Reduced surface disturbance would occur with the removal of grazing. The incremental impacts would be less than those expected under the proposed action.

4.1.3 Vegetation

Alternative I-Proposed Action/No Action Alternative

The direct, indirect, and residual effects grazing has on vegetation vary greatly depending on many factors including but not limited to: resistance to grazing, genetic potential, growth promoting features, grazing intensity, life stage of plant, and environmental constraints (Holechek, Pieper, & Herbel, 2004, pp. 123-142)). Livestock grazing can have both beneficial and detrimental effects on vegetation depending on the various factors described by Holechek et al. Beneficial impacts may include, but are not limited to: growth stimulation from grazing ruminants saliva (McNaughton, 1979), trampling of seed into the ground (Holechek, 1981), reducing excess accumulation of standing dead vegetation and litter that may chemically and physically inhibit new plant growth (Holechek, 1981), and reducing transpiration losses (Holechek, Baker, Boren, & Galt, 2006). Some detrimental impacts livestock grazing may have on vegetation include, but are not limited to: changes in species composition in upland areas (Brock & Green, 2003), reduced tillering (Belsky, 1986), modified plant growth form caused by consumption of terminal buds, thus promoting lateral branching (Fleischner, 1994), and disruption of ecological succession (Fleischner, 1994).

Under the proposed action, livestock will annually remove approximately 679 AUMs of forage from BLM land in the allotments. Most studies show that light to moderate stocking rates do not compromise rangeland health. BLM authorizes the AUMs based on a light to moderate stocking rate. Therefore, as long as the total number of permitted AUMs consumed does not exceed the allotments' authorized use; the impacts from renewing the grazing leases should not have an undesirable effect on vegetation.

BLM has determined the CEAA for vegetation, noxious weeds, and invasive plants to be the area within the grazing allotment boundaries and the area within one-half mile of those boundaries, in accordance with the scope of the proposed action and alternatives. BLM anticipates the direct impacts to last for the life of the grazing lease, while the indirect and long term impacts may last longer.

Cumulative Incremental Effect from the Proposal: The effects of the proposed action, when added to the reasonably foreseeable actions, should be minimal because rangeland health assessment is used to inform livestock grazing management, hunters and recreationists will be monitored for land abuse, fire suppression will mitigate the severity of fire impacts, and BMPs will be used for new oil, gas and ROW activities. Incremental effects of the proposed action may include forage loss and introduction of non-native species along new trails made by livestock, roads used for hunting and recreation, new oil and gas roads, and in areas where fires occur. The severity of these impacts would depend on the amount of hunter and recreationist use on the allotments, number of oil/gas/ROWS permitted, and the intensity/size of the wildfires.

Alternative II-No Grazing Alternative

The no grazing alternative would eliminate both the beneficial and detrimental impacts associated with grazing. It is likely with the removal of grazing that litter would increase, thus increasing fire potential in the allotments. More vegetation would be available for wildlife and ecosystem function. However, Patton et al., (2007) found that production does not increase with the removal of grazing. Other studies found that removal of grazing can lead to an increase in shrub cover and a decrease in species richness and plant diversity (Manier & Hobbs, 2007).

Cumulative Incremental Effect from the No Grazing Alternative: Reduced surface disturbance would occur with the removal of grazing. The incremental impacts would be reduced compared to those expected under the proposed action.

4.1.4 Noxious Weeds and Invasive Non Native Plant Species

Alternative I-Proposed Action/No Action Alternative

Livestock can transport noxious weeds and invasive nonnative plant species on their coats, feet, and in their digestive tract. Livestock may carry undesirable plants that exist within the allotments or bring them into the allotment from other pastures they have inhabited during their lifetime. Livestock grazing can increase the presence of noxious weeds by over-grazing (DiTomaso, 2000); this is the primary cause of unwanted species invasion (Holechek, Pieper, & Herbel, 2004, p. 508).

Since many roads and trails are present in the allotments, and recreation opportunities exist in the area, new weed introductions are likely to regularly occur. BLM, the county weed and pest agencies, and the grazing lessee monitor these infestations to determine if management changes are needed to control the infestations. Because current and proposed management does not exceed recommended grazing levels and no management concerns occur at this time, BLM anticipates that there will be no increase in noxious weeds or invasive non-native plant species under the proposed action.

Alternative II-No Grazing Alternative

Removing livestock grazing from the public land can promote growth and potential overgrowth of perennial grasses and forbs, thus crowding out or reducing the potential for invasion of noxious and/or invasive species. However the overgrowth of vegetation increases the availability of fine fuels, which also increases the wildfire risk. If fires occurred, they would likely be more intense, allowing opportunistic noxious and invasive species to colonize the public lands. Cooperative weed control efforts could discourage vegetation overgrowth and decrease the fire return interval.

[Cumulative effects for this affected resource are addressed in 4.1.3, Vegetation.]

4.1.5 Water Resources

Alternative I-Proposed Action/No Action Alternative

Riparian areas attract livestock due to environmental and nutritional factors and they may use riparian vegetation disproportionately more than adjacent uplands (Gillen, Krueger, & Miller, 1985) (Howery, Provenza, Banner, & Scott, 1996). This attraction can lead to higher use in

riparian areas, thus decreasing streambank stability and cover while increasing soil erosion of the uncovered/unstable streambank (McInnis & McLver, 2001), removal of wood vegetation, soil compaction, and reduced water quality (Parsons, Momont, Delcurto, McInnis, & Porath, 2003). Although uncontrolled livestock grazing can result in watershed destruction in certain areas, controlled grazing is not detrimental to water quality and may increase water quantity (Holechek, 1981). No major degradation problems existed under the past and current management of livestock in these allotments. BLM expects direct, indirect, and residual impacts to water resources to remain unchanged.

The CEAA for water resources is the area within the grazing allotment boundaries and areas extending up and downstream from the allotments, as selected by BLM due to the scope of the proposed action and alternatives. The direct impacts are anticipated to last for the life of the grazing lease (10 years), while the indirect and long term impacts may last longer.

Cumulative Incremental Effect from the Proposed Action: Implementation of the proposed action in combination with any past, present, and reasonably foreseeable actions may increase the possibility for decreased water quality and quantity. This could result from soil erosion into riparian areas. The incremental impacts should be minimal as BLM uses range health objectives in livestock grazing management, and monitors hunters and recreationists for land abuse. Fire suppression will mitigate fire impact severity and BLM uses BMPs for oil, gas, and ROWs.

Alternative II-No Grazing Alternative

The removal of grazing would improve and/or maintain riparian health. Use of riparian plants will decrease, thus reducing trampling and hoof shearing along the green line of riparian areas. Total vascular vegetation, shrub, and graminoid canopy cover would increase with the exclusion of livestock (Schulz & Leininger, 1990).

Cumulative Incremental Effect from the No Grazing Alternative: Reduced surface disturbance would occur with the removal of grazing. The incremental impacts would be less than those expected under the proposed action.

4.1.6 Wildlife

4.1.6.1 Migratory Birds, Special Status Species, Threatened and Endangered Species, and Small Mammals

Alternative I-Proposed Action/No Action Alternative

Rationale for species not discussed below see tables A.1 and A.2 in the appendix.

Geographic Scope and Timeframe for Migratory Birds, Special Status Species, Threatened and Endangered Species, and Small Mammals: The CEAA is the local Upper Powder River and Clear Creek watershed boundary. Many of the species in the watershed are contained therein. Migratory species may travel outside the boundary but most of the life cycle likely occurs in the CEAA. BLM anticipates the direct impacts to last for the life of the grazing lease (10 years), while the indirect and long term impacts may last longer.

Geographic Scope and Timeframe for Big Game and/or Raptors: The CEAA for is the entire range the species may utilize in their life cycle within the vicinity of the allotments. The direct impacts are anticipated to last for the life of the grazing lease (10 years). While the indirect and long term impacts may last longer.

Cumulative Incremental Effect from the Proposal on Wildlife (Migratory Birds, Special Status Species, Threatened and Endangered Species, Small Mammals, Big Game, Raptors): Incremental impacts from the proposal when added to the past, present and reasonably foreseeable actions may result in disruption of species habitat through the loss of vegetation and habitat fragmentation. Loss of vegetation would occur from livestock grazing, new roads (recreation/hunting/oil and gas/ROWs), and wild fire. Habitat fragmentation would result from vertical intrusions associated with development and new roads associated with oil, gas, ROWs, and recreation activities. Additionally, the spread of noxious and invasive weeds from the actions may impact habitat quality by changing the native plant community, plant production, plant diversity, and ecological health. The incremental impacts should be minimal as BLM uses S&Gs in livestock grazing management, monitors hunters and recreationists for land abuse, uses fire suppression will mitigate the severity of its impacts, and uses BMPs for new oil, gas and ROWs.

Alternative II-No Grazing Alternative

Cumulative Incremental Effect from the No Grazing Alternative on Wildlife (Migratory Birds, Special Status Species, Threatened and Endangered Species, Small Mammals, Big Game, Raptors): Reduced surface disturbance would occur with the removal of grazing. The incremental impacts would be less than those expected under the proposed action.

4.1.6.2 Candidate Species – Greater Sage-Grouse (GSG)

Alternative I-Proposed Action/No Action Alternative

As noted in BLM WY-IM-2012-019 (2012), domestic livestock grazing has occurred in and around these allotments and “within the range of [GSG] for over 150 years and is the most common and widespread use of rangelands in the western United States. Livestock grazing practices may affect herbaceous composition, cover, and height and has a potential to impact Wyoming Big Sagebrush habitats. WY BLM has standards and guidelines to ensure proper livestock grazing management on public lands which can help maintain healthy rangeland conditions and provide functional habitat for [GSG]. However, poor livestock grazing practices can have long-term negative impacts on [GSG] habitat by degrading sagebrush, meadow, and riparian communities (Bohne, Rinkes, & Kilpatrick, 2007).”

The proposal’s direct, indirect, and residual effects will impact GSG habitat. Livestock grazing can benefit or degrade GSG habitat, depending on the timing, stocking rate, and habitat affected. Fall grazing may favor upland forb production, and ranchers may use spring grazing to remove herbaceous cover and make forbs more accessible (Smith, Malechek, & Fulgham, 1979), (Fulgham, Smith, & Malechek, 1982). Spring and early summer grazing may help control weeds and remove woody plants, thereby decreasing the risk of wildfire that could remove large areas of habitat (Mosley, 1996), (Olson & Wallander, 2001), (Merritt, Prosser, Sedivec, & Bangsund, 2001), (Riggs & Urness, 1989).

Excessive or poorly managed grazing causes degradation of sagebrush ecosystems and thus GSG habitat (BLM, 2002). Inappropriate grazing management in uplands can reduce perennial grasses and forbs while favoring annual grasses and increasing sagebrush cover (Branson, 1985), (Tisdale, 1994), (Beck & Mitchell, 2000), (Bork, West, & Walker, 1998). This may impact GSG, because they rely on perennial grasses for escape cover and residual herbaceous cover for screening cover in nesting habitat. Forbs are positively associated with survival and recruitment of GSG chicks. Inappropriate grazing that damages meadows and riparian areas can harm GSG, because these areas are critical for GSG in late summer. Livestock may occasionally trample GSG nests or cause GSG to abandon their nests (Call, 1979), (Patterson, 1952).

Livestock grazing historically occurred on these allotments and the BLM expects no additional impacts, other than those that occurred as a result of long-term use, from implementation of the proposed action. Continuing to manage for the Wyoming Standards for Rangeland Health may facilitate GSG habitat viability.

Because staffing and workload issues limit S&G assessment on “C” category allotments, BLM only assessed S&Gs on the Government Draw allotment, and was determined to be meeting standards and guides.

The CEAA for GSG is any area within a 2 mile radius of GSG leks in an allotment and leks that have a 2 mile buffer within an allotment. The direct impacts are anticipated to last for the life of the grazing lease (10 years). While the indirect and long term impacts may last longer.

Cumulative Incremental Effect from the Proposal: Incremental impacts from the proposed action when added to the past, present and reasonably foreseeable action may result in habitat alteration of GSG. These impacts include loss of forage, cover, and habitat. The actions may also disturb mating and brood rearing that is vital to any special status species known to occur in the area. Loss of vegetation would occur from livestock grazing, new roads (recreation/hunting/oil and gas/ROWs), and wild fire. Habitat fragmentation would result from vertical intrusions associated with development and new roads associated with oil, gas, ROWs, and recreation activities.

The GSG population within northeast Wyoming is exhibiting a steady long term downward trend (U.S. Fish and Wildlife Service(USFWS), 2010), (Wyoming Game and Fish Department (WGFD) , 2011a). The figure below illustrates a ten-year cycle of periodic highs and lows. Each subsequent population peak is lower than the previous peak. Long-term harvest trends are similar to that of leks attendance (Wyoming Game and Fish Department(WGFD), 2011b). Habitat fragmentation (resulting from oil and gas development) and West Nile virus are the primary contributors to this decline (Taylor, Naugle, & Mills, 2012), (U.S. Fish and Wildlife Service(USFWS), 2010).

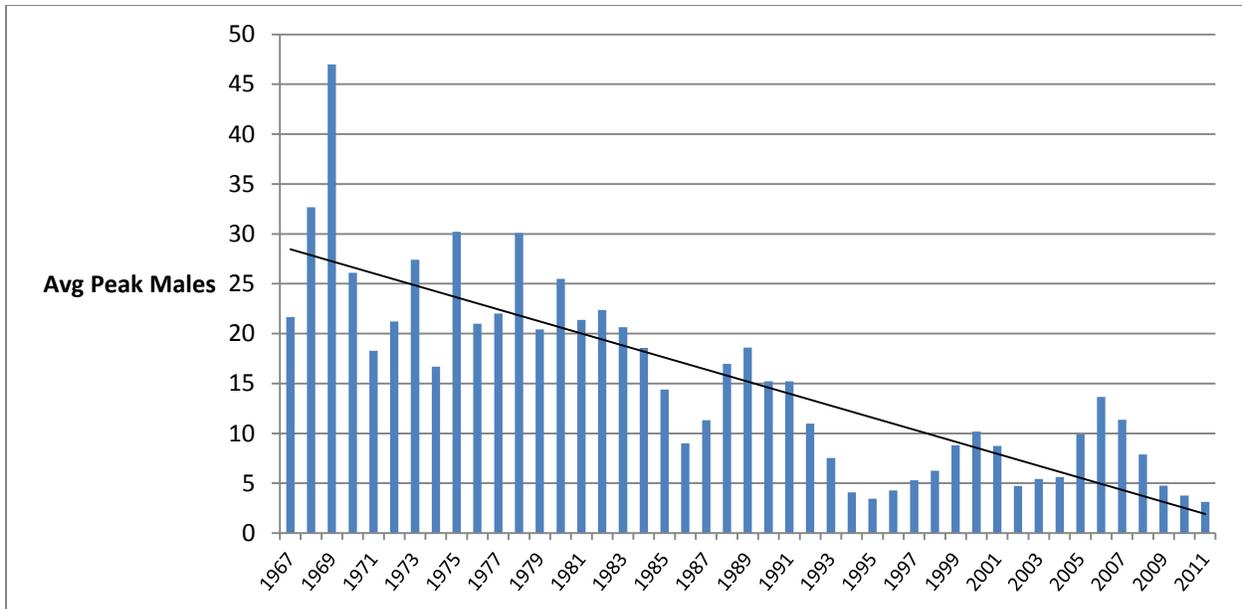


Figure 1. Average peak number of male Greater Sage-Grouse / active leks: BFO 1967-2009

Additionally, the spread of noxious and invasive weeds from the actions may impact habitat quality by changing the native plant community, plant production, plant diversity, and ecological health. The incremental impacts should be minimal as BLM uses Rangeland Health objectives in livestock grazing management, monitors hunters and recreationalist for land abuse, uses fire suppression to mitigate the severity of its impacts, and uses BMPs for new oil, gas and ROWs.

Alternative II-No Grazing Alternative

Under the no grazing alternative, no benefits to GSG habitat as a result of grazing management would occur. Excluding livestock does not necessarily cause an area to return to its pre-grazing condition or guarantee improvements in species richness, diversity, or vegetation production (Manier & Hobbs, 2007). Some habitats reach a threshold where livestock exclusion does not affect the current trend (Wambolt & Payne, 1986), (Sanders & Both, 1983). Other research shows that rest from grazing in Wyoming big sagebrush habitats may improve understory production while decreasing sagebrush cover (Wambolt & Payne, 1986). On Wyoming big sagebrush sites with dense sagebrush and annual grass understory, eliminating grazing can increase fire risk which results in habitat degradation (Peters & Bunting, 1994), (West, 1999).

Cumulative Incremental Effect from the No Grazing Alternative: Less surface disturbance would occur with grazing's removal. Incremental impacts when compared to the proposal will be less.

4.1.6.3 Big Game

Alternative I-Proposed Action/No Action Alternative

By managing land to meet Rangeland Health Standards and improving overall rangeland condition, forage for deer and pronghorn will improve. Forage resources on winter ranges typically limit mule deer populations (Clements & Young, 1997). Livestock grazing tends to favor shrubs over grasses, and thus may provide more desirable winter browse conditions on the allotments (Austin & Urness, 1998), (Austin, Urness, & Riggs, 1986), (Smith A. D., 1949). Livestock grazing may enhance big game forage by reducing unpalatable standing dead material

(Short & Knight, 2003). Big game and cattle may compete for forage on a minor level. There is very little dietary overlap between cattle, pronghorn, and deer during spring and early summer, since cattle feed primarily on grasses while pronghorn and deer select mostly forbs and some grasses. Cattle begin to use more forbs in late summer and fall, potentially increasing competition. Pronghorn and deer increase the amount of shrubs in their diet in fall and winter, thus reducing competition during those seasons (Anderson & McCuiston, 2008). Proper grazing management can improve winter forage conditions for big game (Anderson & Scherzinger, 1975). Livestock grazing historically occurred on these allotments and the BLM expects no additional impacts from implementation of the proposal.

The fences on the allotment pose a hazard to deer and pronghorn. In the BFO resource area, fences have caught and trapped deer and antelope. Modifying fence in areas used by cattle to a more wildlife “safe” design with height under 48 inches and the bottom wire 16 inches from the ground may reduce this hazard. Fences in this allotment are primarily on private land and are not subject to BLM management.

[BLM addressed cumulative effects for these alternatives, above, in Wildlife, Migratory Birds.]

Alternative II-No Grazing Alternative

Under the no grazing alternative, winter browse conditions for big game would not improve. Encroaching herbaceous species may ultimately out-compete shrub species, resulting in a reduction in quality of big game winter range (Smith A. D., 1949). Additionally, livestock would not remove unpalatable standing dead material, resulting in unimproved forage.

4.1.6.4 Raptors

Alternative I-Proposed Action/No Action Alternative

Results from research and monitoring studies suggest that livestock grazing is likely to impact some species of raptors while favoring others (Bock, Saab, Rich, & Dobkin, 1993). Livestock grazing may cause the direct impacts of nest and egg destruction of ground-nesting species due to trampling by livestock, or nest abandonment by birds intolerant of disturbance. Grazing management practices can change vegetation composition, leading to the indirect impacts of changing prey composition and availability. Continued livestock grazing will favor those species that benefit from the alterations in habitat that occur in response to grazing (Bock, Saab, Rich, & Dobkin, 1993). A recent study to assess the impacts of rotational cattle grazing on rodents and raptors suggests that raptor use and prey availability can be affected by livestock grazing. In comparisons between grazed and ungrazed areas, raptor use declined by 15% in the grazed area, but increased by 63% on the ungrazed area. Rodent abundance declined and remained lower in the grazed area for the duration of the study (Johnson & Horn, 2008).

Livestock grazing historically occurred on this allotment and the BLM expects no additional impacts, other than those that occurred as a result of long-term use, from implementation of the proposal. Good grazing management could maintain or improve nesting habitats for ground-nesting raptor species, improve prey abundance, and availability by enhancing habitat conditions.

[BLM addressed cumulative effects for these alternatives, above, in Wildlife, Migratory Birds.]

Alternative II-No Grazing Alternative

Under the no-grazing alternative, occasional trampling of nests by livestock would not occur. Livestock grazing would not alter habitats, thus benefitting some raptor species while negatively affecting others (Bock, Saab, Rich, & Dobkin, 1993).

4.1.7 Cultural, Historic Values & National Register of Historic Places (NRHP) Eligibility Alternative I-Proposed Action/No Action Alternative

Any activity that removes vegetation or leads to soil erosion can cause impacts to cultural resources. Livestock concentration areas (such as those that form near water sources, supplemental feeding areas, fence corners, etc.) and livestock trail formation may result in impacts to cultural resources. According to the State Protocol Agreement between the Wyoming BLM and the Wyoming SHPO, grazing lease renewals that do not include seasonal grazing changes or changes in livestock types are exempt from case-by-case review. As per Appendix B item #27 and following section IV(A)(3) of the Wyoming State Protocol, on 4/18/2014 the Bureau electronically notified the Wyoming State Historic Preservation Office (SHPO) of this grazing lease renewal.

Cumulative Incremental Effect from the Proposal: No new effects are anticipated.

Alternative II-No Grazing Alternative

The absence of grazing will not result in impacts to cultural resources.

Cumulative Incremental Effect from the No Grazing Alternative: Reduced surface disturbance would occur with the removal of grazing. The incremental impacts would be less than those expected under the proposed action.

4.1.8 Socioeconomics

Alternative I-Proposed Action/No Action Alternative

The proposed action would allow the grazing lessees to continue their ranch operations. They will continue to contribute to the state economy, benefiting Wyoming, Campbell and Johnson Counties and local governments. The federal government would continue to collect grazing fees from the lessees and this use would continue to generate revenue for the Wyoming state government and provide funds for the BLM to construct range improvement projects.

The CEAA for socioeconomics includes the Wyoming economy and BLM revenue. The direct impacts are anticipated to last for the life of the grazing lease (10 years), while the indirect and long term impacts may last longer.

Cumulative Incremental Effect from the Proposal: The most significant incremental impact to socioeconomics would be the continued revenue generated from grazing receipts and other permitted actions.

Alternative II-No Grazing Alternative

The removal of grazing would increase financial stress on both the BLM and adjacent landowners as the federal land would have to be fenced off from private land to ensure no unauthorized grazing occurs on federal land. The landowners rely on the public lands for their

livestock operation; the removal of federal grazing would mean they would need to adjust their operating plan, either through sale of livestock or renting expensive private grazing lands.

Cumulative Incremental Effect from the No Grazing Alternative: The loss of livestock grazing would reduce the income generated from permitted activities on BLM lands. This would impact the Wyoming economy negatively, as livestock grazing and the funds it generates are a large part of the Wyoming economy.

4.2 Cumulative Effects Summary

Cumulative effects are “the impact[s] on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such actions” (40 CFR 1508.7). BLM anticipates that implementation of any of the alternatives in combination with the past, present and reasonably foreseeable actions would not result in any measurable cumulative impacts.

Past, Present, and Reasonably Foreseeable Actions

Past, present and reasonably foreseeable actions in all CEAs that may contribute to cumulative effects on various resources include livestock grazing, hunting, recreational activities, fire, oil/gas activities, and ROWs. The results of the impacts of past and present actions are described in Sections 3 and 4 above. Livestock grazing has occurred in the area for over 100 years. Approximately 697 total AUMs are authorized annually on these allotments. BLM anticipates no changes to authorized AUMs, season of use, and kind/number of livestock in the allotments. Livestock grazing will likely continue unless resources conditions or rangeland health assessments indicate otherwise. Additional activities associated with livestock grazing include: off-high way vehicle (OHV) travel, feeding of mineral and protein supplements, and hauling and trailing livestock. Hunting and recreational activities have occurred in the allotments for many years and are still a significant area land use. BLM expects these land uses to continue, with no material changes in these uses.

Fire has occurred in the area over many years. Fire regime is the role fire plays across the landscape. The project area is in a Fire Regime Class II, in which the fire frequency is high severity (stand replacement of greater than 75% of the dominant overstory vegetation being replaced). The fire regime condition classes (FRCC) indicate how similar a landscape is to its natural or historical regime. The project area is in the FRCC of 2 which defines the area as having similar key ecosystem components to its historic state, including vegetation and disturbances such as fire. Wildfires are likely to occur in future.

The BLM permits federal mineral development (coalbed natural gas, conventional oil, and coal) in the Powder River Basin (PRB). This includes federal minerals below federal and/or private (split estate) surface. The BLM prepares NEPA analyses prior to federal mineral development. Generally, companies submit proposals, often as plans of development (PODs) consisting of 1 to 200 wells. Mineral development is common in the area and numerous PODs are present in the Government Draw and Dead Horse Creek Oil Field allotments. Although permitting of oil and gas wells has decreased in the PRB, it is likely this activity will continue. There are various allotments that have BLM lands that are within the boundaries of approved PODs, and have

numerous oil and gas wells. A POD-specific analysis evaluated the environmental impacts from federal mineral development, and this EA incorporates those by reference to update the current situation and to aggregate the cumulative effects; see Table A.3 for a listing of allotments impacted by PODs. Rights-of-way (ROWs) exist in the allotments and more be approved in the future. These ROWs may include water pipelines, power lines, roads, and other federal ROWs. Maintenance and construction of these ROWs will create some surface disturbance that would contribute to the cumulative impacts on various resources.

4.3. Mitigation/Residual Impacts/Monitoring Summary

BLM does not require additional mitigation measures for this proposed action. The BLM incorporated all measures needed to mitigate the proposals' impacts as design features. BLM analyzed the impacts of any mitigation measures in Section 4, above. Per 40 CFR 1505.2(c), monitoring to ensure the success of the proposed action and any design/mitigation features will occur. This monitoring will follow BLM policy and management guidelines that may include use supervisions and trend monitoring when time and priorities permit.

5.0 TRIBES, INDIVIDUALS, ORGANIZATIONS, or AGENCIES CONSULTED

Alpha Wyoming Land Company LLC	Lessee, Bone Pile Creek allotment
Berton Fortner	Lessee, West Timber Draw allotment
Damon Reel	Lessee, Buck Draw allotment
Iberlin Ranch	Lessee, Dead Horse Creek Oil Field allotment
Mankin and Rice	Lessees, Government Draw allotment

6.0 LIST OF PREPARERS

Kay Medders, Rangeland Management Specialist, BLM, Buffalo Field Office

6.1 List of Reviewers

Name	Title	Duty	Name	Title	Duty
Kay Medders	Range Mgmt Spec.	Range, Vegetation, Soils	Chris Sheets	Wildlife Biologist	Wildlife
Clint Crago	Archeologist	Cultural Resources	John Kelley	Coordinator	NEPA Planning
Chris Durham	Asst. Field Manager	Resources			

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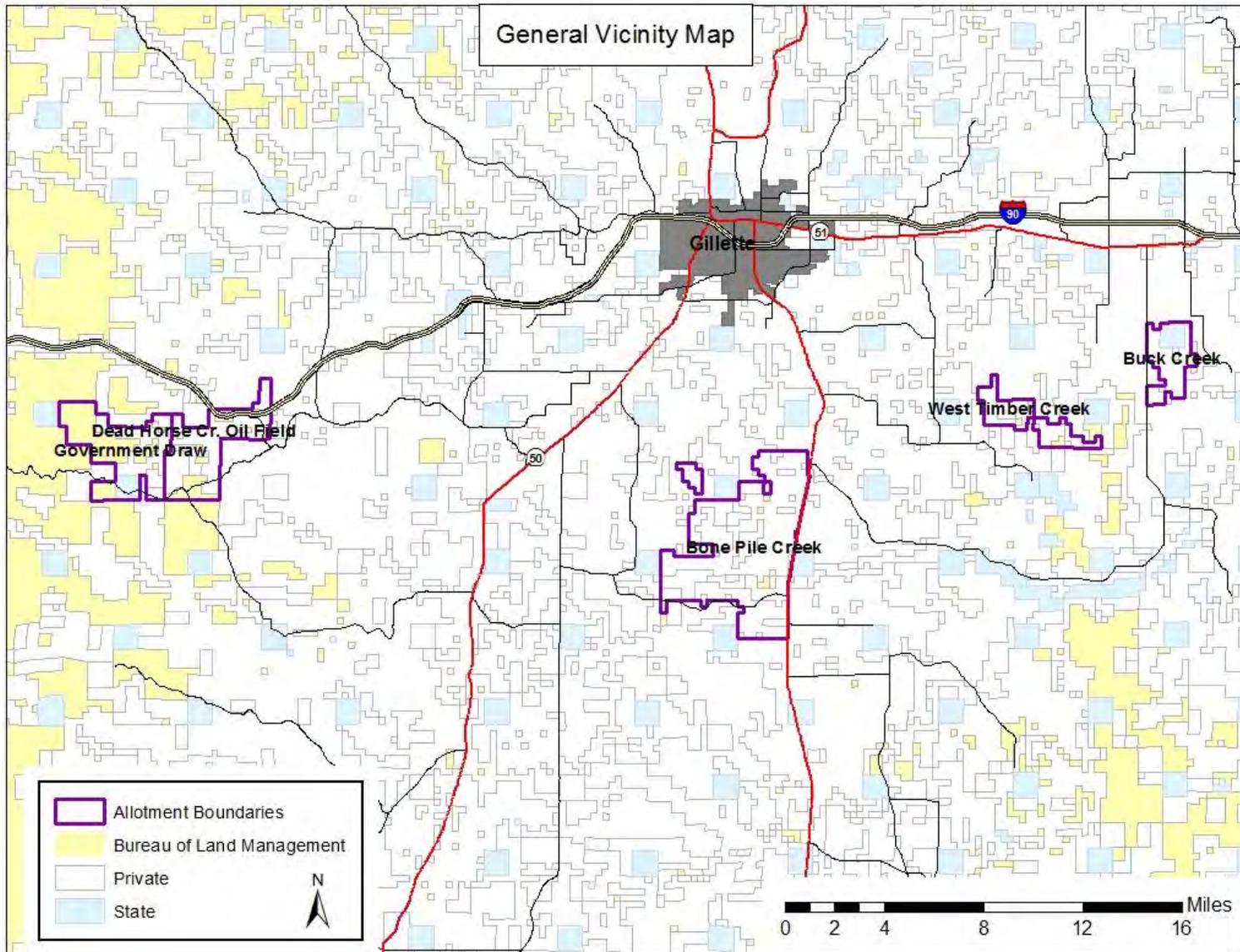
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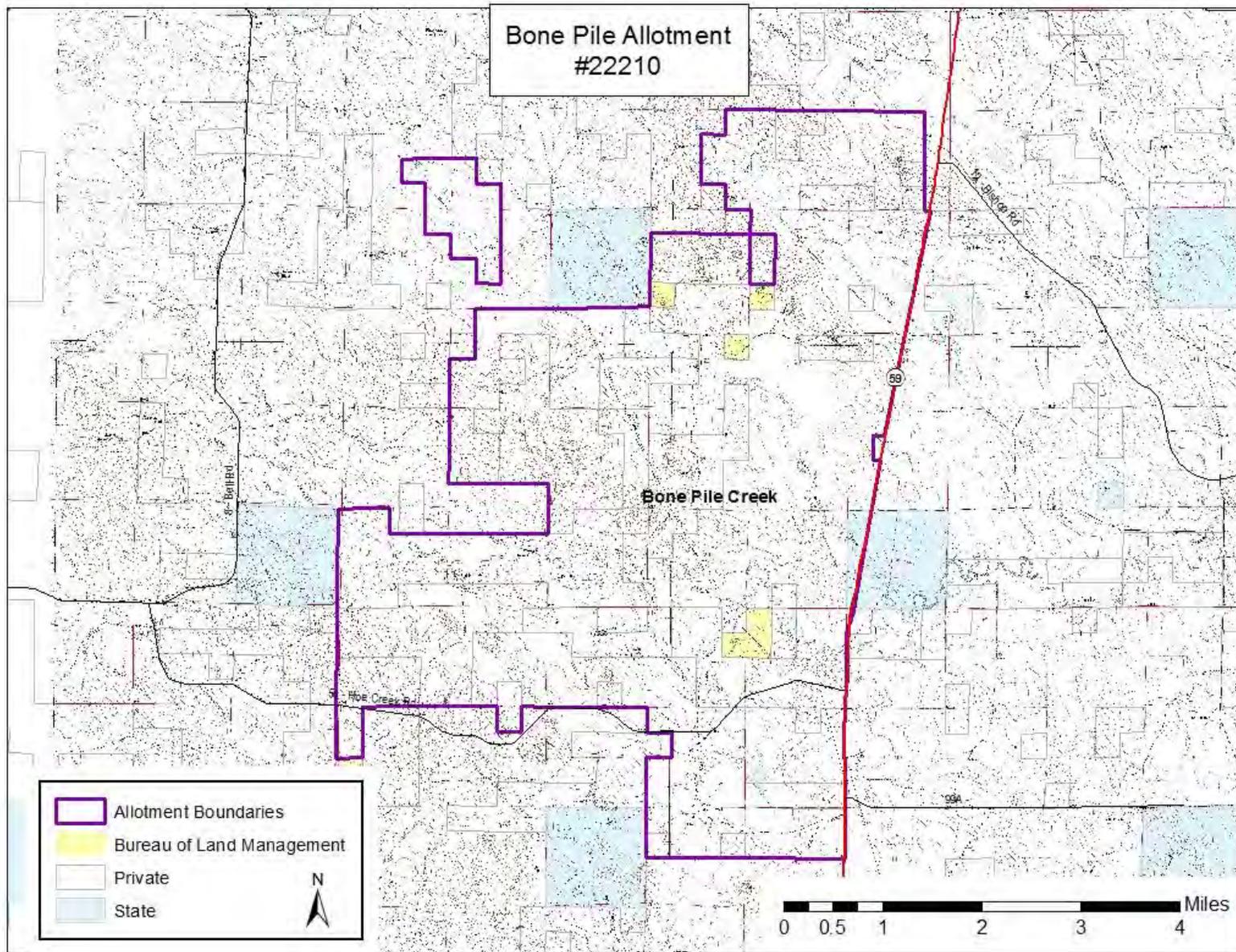
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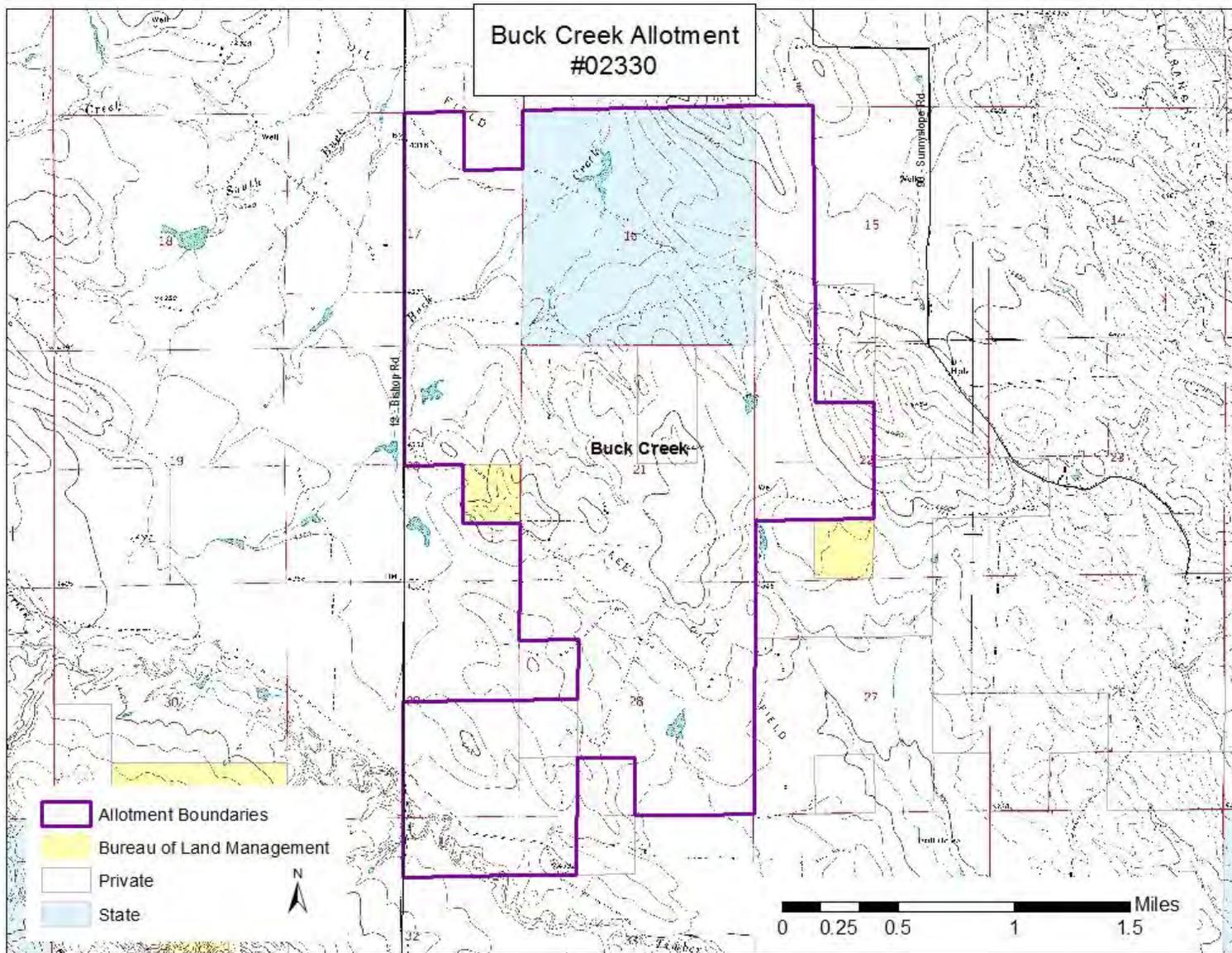
8.0 Attachment 1. Maps
Map 1. General Vicinity



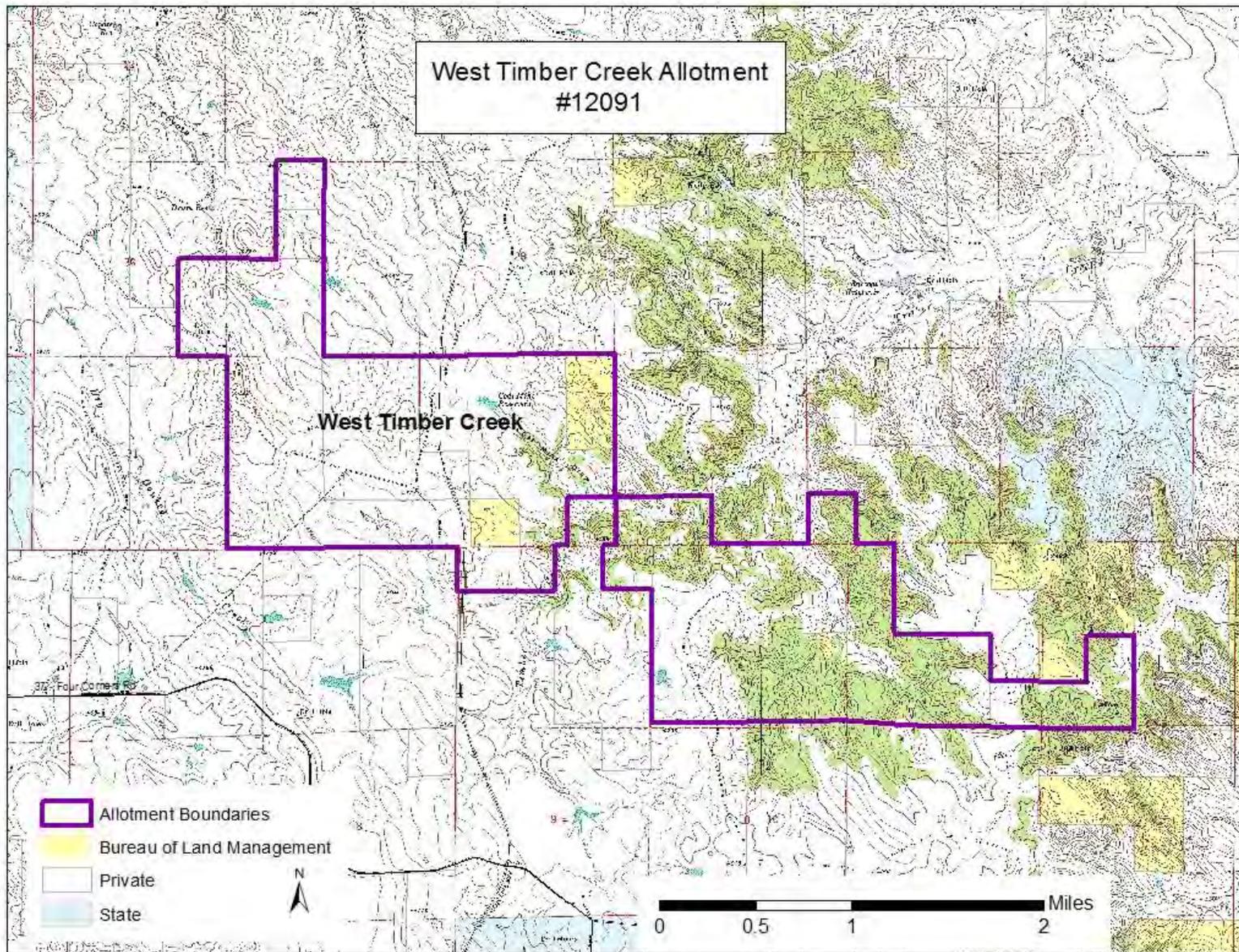
Map 2. Bone Pile Allotment



Map 3. Buck Creek Allotment



Map 5. West Timber Creek Allotment



9.0 Appendix 1. Tables.

Table A.1. Summary of Threatened and Endangered Species Habitat and Project Effects

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
<i>Proposed</i>				
Northern Long-eared Bat	Conifer and deciduous forest, caves and mines	NP	NE	The project area is outside the species' range, and the species is not expected to occur. Only known to occur in extreme Northeast WY (mainly Crook and Weston counties, very limited in northern Campbell county.)
<i>Candidate</i>				
Greater Sage-grouse	Basin-prairie shrub, mountain-foothill shrub	K	MIIH	Suitable habitat and species is known to occur.
<p>Presence K - Known, documented observation within project area. S - Habitat suitable and species suspected, to occur within the project area. NS - Habitat suitable but species is not suspected to occur within the project area. NP - Habitat not present and species unlikely to occur within the project area.</p> <p>Project Effects LAA - Likely to adversely affect NE - No Effect NLAA - May Affect, not likely to adversely affect individuals or habitat. NLJ – Not likely to jeopardize the continued existence of the species MIIH – May impact individuals and habitat NP - Habitat not present and species unlikely to occur within the project area.</p>				

Table A.2. Summary of Sensitive Species Habitat and Project Effects. (Tables 1 & 2: delete species row if no habitat, none present, unless T, E, or C)

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
<i>Amphibians</i>				
Northern leopard frog (<i>Rana pipiens</i>)	Beaver ponds and cattail marshes from plains to montane zones.	NP	NI	Habitat not present.
Columbia spotted frog (<i>Ranus pretiosa</i>)	Ponds, sloughs, small streams, and cattails in foothills and montane zones. Confined to headwaters of the S Tongue R drainage and tributaries.	NP	NI	The project area is outside the species' range, and the species is not expected to occur.
<i>Fish</i>				
Yellowstone cutthroat trout (<i>Oncoryhynchus clarki bouvieri</i>)	Cold-water rivers, creeks, beaver ponds, and large lakes in the Upper Tongue sub-watershed	NP	NI	The project area is outside the species' range, and the species is not expected to occur.
<i>Birds</i>				
Baird's sparrow (<i>Ammodramus bairdii</i>)	Shortgrass prairie and basin-prairie shrubland habitats; plowed and stubble fields; grazed pastures; dry lakebeds; and other sparse, bare, dry ground.	NP	NI	Habitat not present.
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Mature forest cover often within one mile of large water body with reliable prey source nearby.	K	NI	No additive impacts associated with proposed alternatives.
Brewer's sparrow (<i>Spizella breweri</i>)	Sagebrush shrubland	K	MIIH	Nesting and foraging habitat may be impacted by dust, noise, human activities, and direct loss. Species may avoid area.
Ferruginous hawk (<i>Buteo regalis</i>)	Basin-prairie shrub, grasslands, rock outcrops	K	MIIH	Nesting and foraging habitat may be impacted by dust, noise, human activities, and direct loss. Species may avoid area.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	Basin-prairie shrub, mountain-foothill shrub	NS	NI	Some mountain-foothill shrub adjacent to project location. No additive impacts associated with proposed alternatives
Long-billed curlew (<i>Numenius americanus</i>)	Grasslands, plains, foothills, wet meadows	NP	NI	Habitat not present.
Mountain Plover	Short-grass prairie with slopes < 5%	S	NI	No additive impacts associated with proposed alternatives
Northern goshawk (<i>Accipiter gentilis</i>)	Conifer and deciduous forests	NP	NI	Habitat not present.
Peregrine falcon (<i>Falco peregrinus</i>)	Cliffs	NP	NI	Habitat not present.

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
Sage sparrow (<i>Amphispiza billineata</i>)	Basin-prairie shrub, mountain-foothill shrub	NP	NI	Outside Species Range.
Sage thrasher (<i>Oreoscoptes montanus</i>)	Basin-prairie shrub, mountain-foothill shrub	K	MIIH	Nesting and foraging habitat may be impacted by dust, noise, human activities, and direct loss. Species may avoid area.
Trumpeter swan (<i>Cygnus buccinator</i>)	Lakes, ponds, rivers	NP	NI	Habitat not present.
Western Burrowing owl (<i>Athene cunicularia</i>)	Grasslands, basin-prairie shrub	S	NI	No additive impacts associated with proposed alternatives
White-faced ibis (<i>Plegadis chihi</i>)	Marshes, wet meadows	NP	NI	Habitat not present.
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Open woodlands, streamside willow and alder groves	NP	NI	Habitat not present.
<i>Mammals</i>				
Black-tailed prairie dog (<i>Cynomys ludovicianus</i>)	Prairie habitats with deep, firm soils and slopes less than 10 degrees.	K	NI	No additive impacts associated with proposed alternatives
Fringed myotis (<i>Myotis thysanodes</i>)	Conifer forests, woodland chaparral, caves and mines	S	MIIH	No additive impacts associated with proposed alternatives
Long-eared myotis (<i>Myotis evotis</i>)	Conifer and deciduous forest, caves and mines	S	MIIH	No additive impacts associated with proposed alternatives
Spotted Bat (<i>Euderma maculatum</i>)	Prominent rock features in extreme, low desert habitats to high elevation forests.	NP	NI	Habitat not present.
Swift fox (<i>Vulpes velox</i>)	Grasslands	S	NI	No additive impacts associated with proposed alternatives
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	Caves and mines.	NP	NI	Construction may impact foraging areas and alter habitat conditions.
<i>Plants</i>				
Limber Pine (<i>Pinus flexilis</i>)	Mountains, associated with high elevation conifer species	NP	NI	Habitat not present.
Porter's sagebrush (<i>Artemisia porteri</i>)	Sparsely vegetated badlands of ashy or tufaceous mudstone and clay slopes 5300-6500 ft.	NP	NI	Habitat not present.
William's wafer parsnip (<i>Cymopterus williamsii</i>)	Open ridgetops and upper slopes with exposed limestone outcrops or rockslides, 6000-8300 ft.	NP	NI	Project area outside of species' range.

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
<p>Presence K - Known, documented observation within project area. S - Habitat suitable and species suspected, to occur within the project area. NS - Habitat suitable but species is not suspected to occur within the project area. NP - Habitat not present and species unlikely to occur within the project area.</p> <p>Project Effects NI - No Impact. MIIH - May Impact Individuals or Habitat, but will not likely contribute to a trend towards Federal listing or a loss of viability to the population or species. WIPV - Will Impact Individuals or Habitat with a consequence that the action may contribute to a trend towards Federal listing or cause a loss of viability to the population or species. BI - Beneficial Impact</p>				

Table A.3. This EA Incorporates by Reference the Following NEPA Analysis from the Analysis Area of the 5 Proposed Allotments

#	Project Name	NEPA Document #	Proposed Allotment Analysis Area		Approval
			Government Draw	Dead Horse Creek Oil Field	
1	Burger Draw	DOI-BLM-WY-070-EA04-030	X		3/30/2004
2	Schoonover	DOI-BLM-WY-070-EA04-018	X	X	11/26/2003
3	Schoonover Road 3	DOI-BLM-WY-070-EA05-156	X		4/29/2005
4	Schoonover Road Unit POD 5	DOI-BLM-WY-070-EA06-295	X	X	9/28/2006
5	South Prong Unit 3	DOI-BLM-WY-070-EA07-070	X	X	1/23/2007
6	Wild Turkey 2	DOI-BLM-WY-070-EA05-187	X		5/27/2005
7	Wild Turkey IV	DOI-BLM-WY-070-CX06-018	X		7/17/2006

Of the 5 allotments, only Government Draw and Dead Horse Creek Oil Field have CBNG development.