

Environmental Assessment (EA) DOI-BLM-WY-070-EA14-229

Lease Renewal

Tuttle Draw Allotment #02456

Michael Ryan
Lease #4907349

Squaw Butte Allotment #22025

Longreach Buffalo Co., LLC
Lease #4907045

Larrechea Allotment #22108
Cottonwood Creek I Allotment
#12143

Laurel Leaf Land Co., LLC
Lease #4907177

North Cottonwood Creek
Allotment #02092

West Bowman Hill Allotment
#12181

Larry W. & Susan K. Shippy
Lease #4907510

East Fork Allotment #17036
Craig G. & Peggy S. Means
Trust Lease #4915126

Hamm Don Robert
(renamed North Fork Hay Creek)

Allotment #22129

Don R. Hamm
Lease #4907216

Preparer: Charlotte Darling, Rangeland Management Specialist

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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: Tuttle Draw (#02456), Squaw Butte (#22025), Larrechea (#22108), Cottonwood Creek I (#12143), East Fork (#17036), North Cottonwood Creek (#02092), West Bowman Hill (#12181), and Hamm Don Robert (#22129). For ease of administration, and in accordance with BLM IM 2005-194, the Hamm Don Robert allotment is being renamed the North Fork Hay 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 Northern Campbell County, Wyoming, and approximately 30 miles northeast of Gillette, Wyoming. Elevations in the allotments range from 3,600 to 4,200 feet. The allotments consist of about 43,532 total acres of which 9.1% is BLM land, 2.2% is USDA Forest Service land, 5% is state land, and 83.7% is deeded land. The leases authorizing grazing on these allotments include a total of 3,953 acres of BLM land and 920 animal unit months (AUMs) of forage. Grazing use is authorized for cattle on all of the allotments, except for the Squaw Butte allotment, which authorizes grazing for indigenous livestock (bison). 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:

- **Tuttle Draw Allotment (02456):** T56N R70W Sec.9: NW¹/₄; Sec.11: SE¹/₄SW¹/₄, SW¹/₄SE¹/₄; Sec.14: NE¹/₄NW¹/₄, NW¹/₄NE¹/₄.
- **Squaw Butte Allotment (22025):** T56N R70W Sec. 35: Lot 2
- **Larrechea Allotment (22108):** T53N R69W Sec.10: SW¹/₄NE¹/₄; Sec.15: E¹/₂SE¹/₄; Sec.18: NW¹/₄NE¹/₄, S¹/₂NE¹/₄, NE¹/₄SW¹/₄.
- **Cottonwood Creek I Allotment (12143):** T53N R70W Sec.8: NW¹/₄SE¹/₄, SE¹/₄SE¹/₄; Sec.15: SE¹/₄SW¹/₄, SW¹/₄SE¹/₄.
- **North Cottonwood Creek Allotment (02092):** T53N R70W Sec.2: SW¹/₄NW¹/₄; Sec.6: Lot 4.
- **West Bowman Hill Allotment (12181):** T56N R69W Sec.7: Lots 10,11,12, SE¹/₄; Sec.17: W¹/₂W¹/₂; Sec.18: Lot 21; Sec.19: Lot 8, S¹/₂SE¹/₄; Sec.29: W¹/₂NW¹/₄, NW¹/₄SW¹/₄; Sec.30: Lots 6,7,8,9,10,15,16,17,18,20, NW¹/₄NE¹/₄, NE¹/₄SE¹/₄; Sec.31: Lots 5,12,14; Sec.32: SW¹/₄NE¹/₄. T56N R70W Sec.11: SE¹/₄SE¹/₄; Sec.12: SW¹/₄, S¹/₂NE¹/₄, N¹/₂SE¹/₄, SE¹/₄SE¹/₄; Sec.13: Lot 1, NE¹/₄NE¹/₄, S¹/₂NE¹/₄, N¹/₂NW¹/₄; Sec.14: Lot 1, NE¹/₄NE¹/₄; Sec.24: Lots 1,4,7; Sec.25: W¹/₂NE¹/₄, SE¹/₄, N¹/₂NW¹/₄ portion lying NW and S of county road; Sec.26: NE¹/₄NE¹/₄.
- **East Fork Allotment (17036):** T56N R73W Sec.8: NE¹/₄NE¹/₄, SW¹/₄SE¹/₄; Sec.15: W¹/₂SW¹/₄; Sec.17: SW¹/₄NE¹/₄; Sec.21: W¹/₂NE¹/₄, NW¹/₄SE¹/₄; Sec.22: E¹/₂NW¹/₄.
- **North Fork Hay Creek Allotment (22129):** T52N R70W Sec.4: Lot 11; Sec.6: Lots 9, 10. T53N R70W Sec.31: Lots 7,8,15,18,19,20.

This EA, WY-070-EA14-229 analyzes the impacts of the proposed action on the environment in accordance with the National Environmental Policy Act (NEPA). The current grazing lessees own or control the base property associated with their allotment(s) and hold the grazing authorization for that allotment. Leases 4907177, 4907510, 4907045, and 4907349 were last renewed under Section 416, Public Law (PL) 111-88 in March 2010 and expire in February-March 2020. Lease 4907216 was issued under Section 150, PL110-329 on March 1, 2009 and expires on February 28, 2019. Lease 4915126 was issued under Section 415, H.R. 2055 on March 1, 2011, and expired on 2/28/2014. These leases issued under the Appropriations Act and Continuing Resolutions are not considered fully processed until NEPA analysis has been completed.

The current lessees have each applied for renewal and 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.

Michael Ryan leases the base property associated with the Tuttle Draw allotment from the landowner, MJDB McManamen, LLC. The terms of the proposed BLM grazing lease coincides with the terms of the lease agreement between the landowner and lessee, and expires with termination of the base property 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 S&G assessment is complete for the West Bowman Hill allotment. The assessment, completed on September 15, 2010, found that the allotment was meeting all applicable standards. BLM distributed the final S&G report to all interested persons, and it is available for review at the Buffalo Field Office. A formal assessment of the S&Gs has not yet been conducted for the East Fork, North Cottonwood Creek, Tuttle Draw, Squaw Butte, North Fork Hay Creek, Cottonwood Creek I, and Larrechea allotments, however, range monitoring in 2012 and 2013 found these allotments in fair to good condition, with no major resource issues identified.

Although formal S&G assessments have not been completed on several of the allotments, based on monitoring data, the BLM expects that further evaluation 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).

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) for 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 in accordance with 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: Tuttle Draw (#02456), Squaw Butte (#22025), Larrechea (#22108), Cottonwood Creek I (#12143), North Cottonwood Creek

(#02092), West Bowman Hill (#12181), East Fork (#17036), and North Fork Hay Creek (#22129). 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, BLM leases will be for 10 year terms no matter the term of the base lease. If the base lease is cancelled, 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 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
4907349	02456	Tuttle Draw	320	100	100	Cattle	3/1-2/28	92	Custodial
4907045	22025	Squaw Butte	39.86	3	30	Indigenous	3/1-2/28	11	Active
4907177	22108	Larrechea	280	2	400	Cattle	5/1-10/31	48	Custodial
4907177	12143	Cottonwood Creek I	160	4	300	Cattle	11/01-2/28	47	Custodial
4907510	02092	North Cottonwood Creek	78.84	100	2	Cattle	3/1-2/28	23	Custodial
4907510	12181	West Bowman Hill	2311	25	174	Cattle	3/1-2/28	522	Active
4915126	17036	East Fork	400	4	209	Cattle	3/1-2/28	100	Active
4907216	22129	North Fork Hay Creek	363.48	20	32	Cattle	3/1-2/28	77	Active
Total			3953.18					Total 920	

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 (#4907349):

- This lease will be terminated upon notification of cancellation or termination of the base property lease. Once cancelled 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 Tuttle Draw (#02456), Squaw Butte (#22025), Larrechea (#22108), Cottonwood Creek I (#12143), North Cottonwood Creek (#02092), West Bowman Hill (#12181), East Fork (#17036), and North Fork Hay Creek (#22129) allotments. 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. Although the Squaw Butte, Larrechea, Cottonwood Creek I, North Cottonwood Creek, West Bowman Hill, and North Fork Hay Creek allotments are in GSG Core or Connectivity areas, the management opportunity does not warrant a deferred grazing system.

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

The Tuttle Draw, Squaw Butte, Larrechea, Cottonwood Creek I, North Cottonwood Creek, West Bowman Hill, East Fork, and North Fork Hay Creek allotments are located in Campbell County and are best approached by highways and county roads including WY Hwy 59, Rocky Point Road, and Cow Creek Road. There is legal public access to BLM land in the West Bowman Hill

and North Fork Hay Creek allotments from Rocky Point and Cow Creek Roads, respectively. There is no legal public access to the BLM land in the other allotments. The allotments are in the Powder River Basin and Pine Scoria Hills level IV ecoregions, which are unglaciated, irregular and dissected plains. Perennial streams in the area have sand, gravel, and cobble substrates. 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 15-17” Northern Plains (NP) precipitation zone, 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)

In addition to the grazing leases, BLM authorizes other uses on the public lands in the allotments (see Section 4.2). Table 2 lists the authorized rangeland improvement projects in these allotments. Some fences and other projects may not be included here. Maintenance of these projects is the grazing lessee’s responsibility.

Table 2. Other authorized uses on public lands

Allotment Name	Allotment Number	Project Name (Project Number)	Condition
West Bowman Hill	12181	McConnell Reservoir (960363)	Unknown
Squaw Butte	22025	Boardman Fence (961580)	Unknown
East Fork	17036	Brug Well (966013)	Unknown

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 Tuttle Draw, Squaw Butte, Larrechea, Cottonwood Creek I, North Cottonwood Creek, West Bowman Hill, East Fork, and North Fork Hay 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 allotments have been grazed for numerous years. Current livestock grazing season within all allotments is shown in Table 1. There are 920 total AUMs available for grazing on public lands within the allotments. The allotments consist primarily of private lands. Authorized range improvements include those shown above in Table 2. Table 3 describes the current breakdown of land ownership and AUMs.

Table 3. Land ownership and AUMs

Allotment #	Allotment Name	Surface Ownership*	Acres	Percent
02456	Tuttle Draw	BLM	320	20%
		Private	1278	80%
		State	-	-
		Total	1598	
22025	Squaw Butte	BLM	39.86	1%
		Private	2378.14	71%
		USDA Forest Service	951	28%
		Total	3369	
22108	Larrechea	BLM	280	3%
		Private	6629	87%
		State	747	10%
		Total	7656	
02092	North Cottonwood Creek	BLM	78.84	1%
		Private	7921.16	98%
		State	120	1%
		Total	8120	
12181	West Bowman Hill	BLM	2311	28%
		Private	6035	72%
		State	-	-
		Total	8346	
17036	East Fork	BLM	400	8%
		Private	4219	80%
		State	655	12%
		Total	5274	
22129	North Fork Hay Creek	BLM	363.48	8%
		Private	4327.52	92%
		State	-	-
		Total	4691	
12143	Cottonwood Creek I	BLM	160	4%
		Private	3658	82%
		State	660	14%
		Total	4478	
		Total (all allotments)	43532	
		BLM (all allotments)	3953.18	9%
		State/USDA Forest Service (all allotments)	3133	7%
		Private (all allotments)	36445.82	84%

*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

Entisols and Alfisols are the most common soils in the allotments. 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. Alfisols are moderately leached soils that have relatively high native fertility and a subsurface horizon in which clays have accumulated.

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

- 254-Badland-Lismas complex, 15 to 75 percent slopes
- 225-Ucross-Iwait-Fairburn loams, 3 to 30 percent slopes
- 325-Ucross-Fairburn loams, wooded, 10 to 50 percent slopes
- 324-Ucross-Fairburn loams, 15 to 45 percent slopes
- 295-Lismas-Sabatka-Xema complex, 3 to 15 percent slopes
- 326-Ucross-Iwait-Fairburn loams, wooded, 3 to 30 percent slopes
- 135-Deekay-Oldwolf loams, 6 to 15 percent slopes

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

3.4 Vegetation

The principal ecological sites on BLM land in the allotments are loamy and sandy. Other ecological sites found in the allotment include shallow loams and shallow clays. The primary vegetative types throughout the allotments are Wyoming big sagebrush type and Ponderosa pine intact 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, ponderosa pine, 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. Mixed grass prairie vegetation is also present in the allotments. A description of each ecological site may be found on the NRCS Ecological Site Description webpage.

Currently BLM authorizes 920 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 Little Powder River flows through the far northern portion of the North Cottonwood Creek allotment. This stream is located entirely on private lands. All 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 Little Powder River drainage and the Middle Powder River watersheds. Additional water sources on BLM lands include wells and reservoirs in the allotments.

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 Tuttle Draw, Squaw Butte, Larrechea, Cottonwood Creek I, North Cottonwood Creek, West Bowman Hill, East Fork, and North Fork Hay Creek 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

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 habitat is present on BLM lands in all the allotments. Habitat models indicate that BLM lands in all eight allotments have high quality winter habitat and high quality nesting habitat for GSG. There are 19 documented leks with four miles of the allotment boundaries (Table 4). Three leks are in two of the allotments, Tuttle Draw is in the Tuttle Draw allotment and the Cow Creek Road 1 and 2 leks are in the N. Cottonwood CK allotment. The Squaw Butte, Larrechea, Cottonwood CK I, N. Cottonwood CK, and N. Fork Hay Creek allotments are all in or partially in the North Gillette GSG Core Area. The West Bowman Hill allotment is mostly in the North Gillette GSG Connectivity Area.

Table 4. GSG leks within 4 miles of Allotment boundaries.

GSG Lek	Associated Allotments
Adon	Larrechea, N. CT CK, CT CK I, N. FK Hay CK
Bergeen (<i>in core</i>)	Squaw Butte
Cow Creek Road 1 (<i>in core</i>)	N. CT CK, CT CK I, Larrechea
Cow Creek Road 2 (<i>in core</i>)	N. CT CK, CT CK I, Larrechea, N. FK Hay CK
East Adon	N. FK Hay CK
Elk Creek Road	East Fork
Elk Creek Road NE	East Fork
Lester	East Fork
Mitchell (<i>in core</i>)	CT CK I, N. CT CK, N. FK Hay CK, Larrechea
Saddlesore (<i>in core</i>)	N. FK Hay CK, CT CK I, N. CT CK
Three Bees	East Fork
Tuttle Draw	Tuttle Draw, W. Bowman Hill
Wallace	N. FK Hay CK
York (<i>in core</i>)	Squaw Butte, CT CK I, N. CT CK, Larrechea
ZV Creek 1 Satellite (<i>in core</i>)	Squaw Butte
ZV Creek I (<i>in core</i>)	Squaw Butte
ZV Creek II (<i>in core</i>)	Squaw Butte, Larrechea
ZV Creek III (<i>in core</i>)	Squaw Butte, Larrechea
ZV Creek IV (<i>in core</i>)	Squaw Butte

3.7.3 Big Game

Big game species occurring in the EA area include elk, pronghorn, white-tailed deer, and mule deer. Table 5 summarizes WGFD big game seasonal range data for the allotments.

Table 5. Big Game Seasonal habitat provided in each Allotment

Allotment name	Pronghorn Antelope	Mule Deer	White-tailed Deer	Elk
Tuttle Draw	not identified	Winter/Yearlong	not identified	not identified
Squaw Butte	Yearlong	Winter/Yearlong	not identified	not identified
Larrechea	Yearlong	Winter/Yearlong	not identified	not identified
N Cottonwood CK	Yearlong, Winter/Yearlong	Yearlong, Winter/Yearlong	Yearlong	not identified
W Bowman Hill	Yearlong	Winter/Yearlong	not identified	not identified
East Fork	Yearlong	Yearlong, Winter/Yearlong	not identified	not identified
North Fork Hay CK	Yearlong, Winter/Yearlong	Yearlong, Winter/Yearlong	not identified	not identified
Cottonwood CK I	Yearlong, Winter/Yearlong	Yearlong, Winter/Yearlong	Yearlong	not identified

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, populations of white-tailed deer in their respective hunt areas are above WGFD objectives (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 eight 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, and great-horned owls. Less common species that may use area habitats include bald eagle, rough-legged hawk, and merlin. Bald eagles occasionally roost in cottonwoods in nearby riparian areas in the winter and forage in the area. Raptors prey upon birds, 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

In accordance with section 106 of the National Historic Preservation Act, BLM must consider impacts to historic properties (sites that are eligible for or listed on the National Register of Historic Places (NRHP)). For an overview of cultural resources that are generally found within BFO the reader is referred to the Draft Cultural Class I Regional Overview, Buffalo Field Office (BLM, 2010).

Inventory for cultural resources has not occurred on the majority of the East Fork Allotment. However, the WYCRO database revealed that limited inventories related primarily to oil and gas development located some cultural resources. The allotment contains two known cultural sites, of which one unevaluated for the NRHP. Site types include prehistoric lithic scatters, stone circles and historic trash. There may be many more unrecorded cultural sites, some which may be eligible for listing on the NRHP within the allotment.

Inventory for cultural resources has not occurred on the majority of the Tuttle Draw Allotment. The WYCRO database revealed that limited inventories related primarily to oil and gas development did not locate any cultural resources. There may be unrecorded cultural sites, some which may be eligible for listing on the NRHP within the allotment.

Inventory for cultural resources has not occurred on the majority of the West Bowman Hill Allotment. However, the WYCRO database revealed that limited inventories related primarily to oil and gas development located some cultural resources. The allotment contains two known cultural sites, of which one is unevaluated for the NRHP. Both sites are historic homesteads. There may be many more unrecorded cultural sites, some which may be eligible for listing on the NRHP within the allotment.

Inventory for cultural resources has not occurred on the majority of the Squaw Butte Allotment. However, the WYCRO database revealed that limited inventories related primarily to oil and gas development and range improvements located some cultural resources. The allotment contains

three known cultural sites, of which one eligible for the NRHP. Site types include prehistoric lithic scatters and stone circles. There may be many more unrecorded cultural sites, some which may be eligible for listing on the NRHP within the allotment.

Inventory for cultural resources has not occurred on the majority of the North Cottonwood Creek Allotment. However, the WYCRO database revealed that limited inventories related primarily to oil and gas development located some cultural resources. The allotment contains one known cultural site which is not eligible for the NRHP. The site is a prehistoric lithic scatter. There may be many more unrecorded cultural sites, some which may be eligible for listing on the NRHP within the allotment.

Inventory for cultural resources has not occurred on the majority of the Cottonwood Creek I Allotment. The WYCRO database revealed that limited inventories related primarily to oil and gas development did not locate any cultural resources. There may be unrecorded cultural sites, some which may be eligible for listing on the NRHP within the allotment.

Inventory for cultural resources has not occurred on the majority of the North Fork Hay Creek Allotment. However, the WYCRO database revealed that limited inventories related primarily to oil and gas development located some cultural resources. The allotment contains three known cultural sites, of which one is unevaluated for the NRHP. Site types include prehistoric lithic scatters and historic trash. There may be many more unrecorded cultural sites, some which may be eligible for listing on the NRHP within the allotment.

Inventory for cultural resources has not occurred on the majority of the Larrechea Allotment. The WYCRO database revealed that limited inventories related primarily to oil and gas development did not locate any cultural resources. There may be unrecorded cultural sites, some which may be eligible for listing on the NRHP within the allotment.

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 fifth. 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 \$1242 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 920 public AUMs annually; see Table 1. Range vegetation inventory data (DOI BLM, 1956), along with monitoring data from 2010, 2012, and 2013 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 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 920 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

The evaluations include selected individual species or species groupings that are ecologically, economically, or socially important. Tables A.1 and A.2 in the appendix summarize the effects for Special Status wildlife species. Impacts that would be common to all are discussed below:

Alternative I-Proposed Action/No Action Alternative

Geographic Scope and Timeframe for Migratory Birds, Special Status Species, Threatened and Endangered Species, and Small Mammals: The CEAA is the Powder River watershed boundary. Many of the species in the watershed are contained therein. Migratory species travel outside the boundary, but rely on habitat within the CEAA during at least a part of their life cycle. 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 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

If grazing is removed from the allotment numerous wildlife species may benefit due to decreased competition for various resources, and some species would also experience negative effects due to increased vegetation cover that would be provided due to lack of grazing pressure, such as the black-tailed prairie dog, mountain plover, and burrowing owls.

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.

BLM derived the average stocking rate of the allotments from the production potential of the land based on topographic features, soil types, vegetative characteristics, and annual precipitation. BFO designed the livestock stocking rates to meet the 6 S&Gs. Particularly applicable to GSG is Standard 4, which requires that rangelands be capable of sustaining viable populations and a diversity of native plant and animal species. [BLM performed an assessment

of S&Gs for the West Bowman Hill allotment in September 15, 2010 finding the public range met all standards.

BLM has not assessed S&Gs on the East Fork, North Cottonwood Creek, Tuttle Draw, Squaw Butte, North Fork Hay Creek, Cottonwood Creek I, and Larrechea allotments, however, range monitoring in 2012 and 2013 found these allotments in fair to good condition, with no major resource issues identified. Continuing to manage for the Wyoming Standards for Rangeland Health will promote GSG habitat viability.

The CEAA for GSG is any area within a 4 mile radius of GSG leks in an allotment and leks that have a 4 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) , 2013a). 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), 2013b). 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).

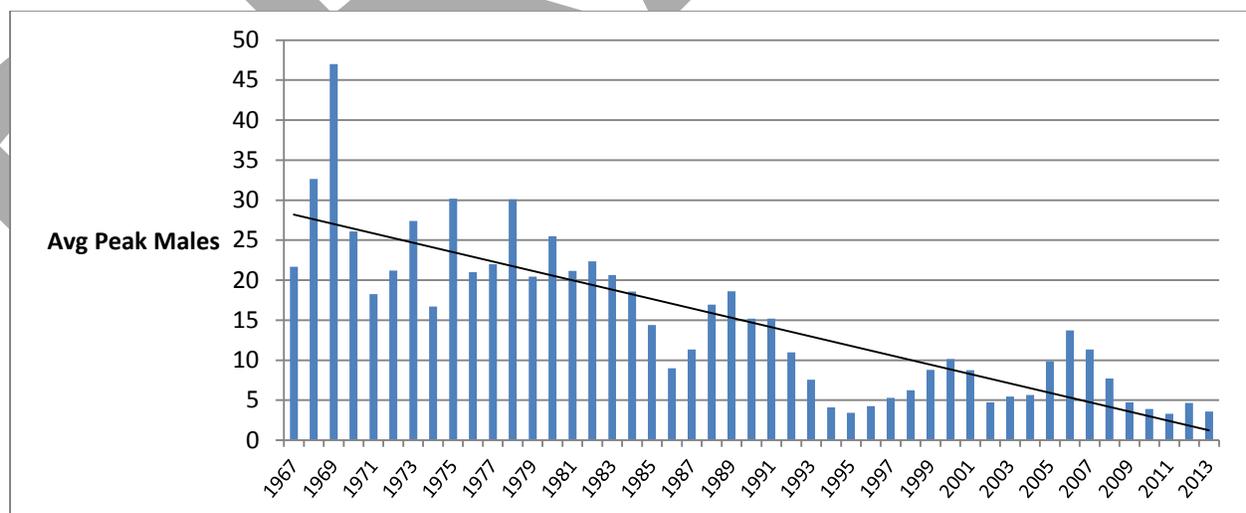


Figure 1. Average peak number of male Greater Sage-Grouse / active leks: BFO 1967-2013

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 negatively 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 has 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 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. However, 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 5/9/14 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 County 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 920 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 the 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 of the East Fork allotment and several PODs are present. Although permitting of oil and gas wells has decreased in the PRB, it is likely this activity will continue. The Tuttle Draw, Squaw Butte, Larrechea, Cottonwood Creek I, North Cottonwood Creek, West Bowman Hill, East Fork, and North Fork Hay Creek allotments all contain oil and/or 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 may be approved in the future. These ROWs may include water pipelines, power lines, roads, and other projects. 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 proposed action 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

Michael Ryan	Lessee, <i>Tuttle Draw Allot.</i>	Longreach Buffalo Co, LLC	Lessee, <i>Squaw Butte Allot.</i>
David Shippy (Laurel Leaf Land Co.)	Lessee, <i>Larrechea & Cottonwood Creek I Allots.</i>	Don Hamm	Lessee, <i>North Fork Hay Creek Allot.</i>
Craig & Peggy Means	Lessee, <i>East Fork Allot.</i>	Larry & Susan Shippy	Lessee, <i>North Cottonwood Creek & West Bowman Hill Allots.</i>

6.0 LIST OF PREPARERS

Charlotte Darling, Rangeland Management Specialist, BLM, Buffalo Field Office

6.1 List of Reviewers

Name	Title	Duty	Name	Title	Duty
Kay Medders	Range Management	Range, Soils	Don Brewer	Wildlife Biologist	Wildlife
G.L. "Buck" Damone III	Archeologist	Cultural Resources	Dusty Kavitz	Range Management	Vegetation, Soils
Chris Durham	Asst. Field Manager	Resources	John Kelley	Coordinator	NEPA Planning

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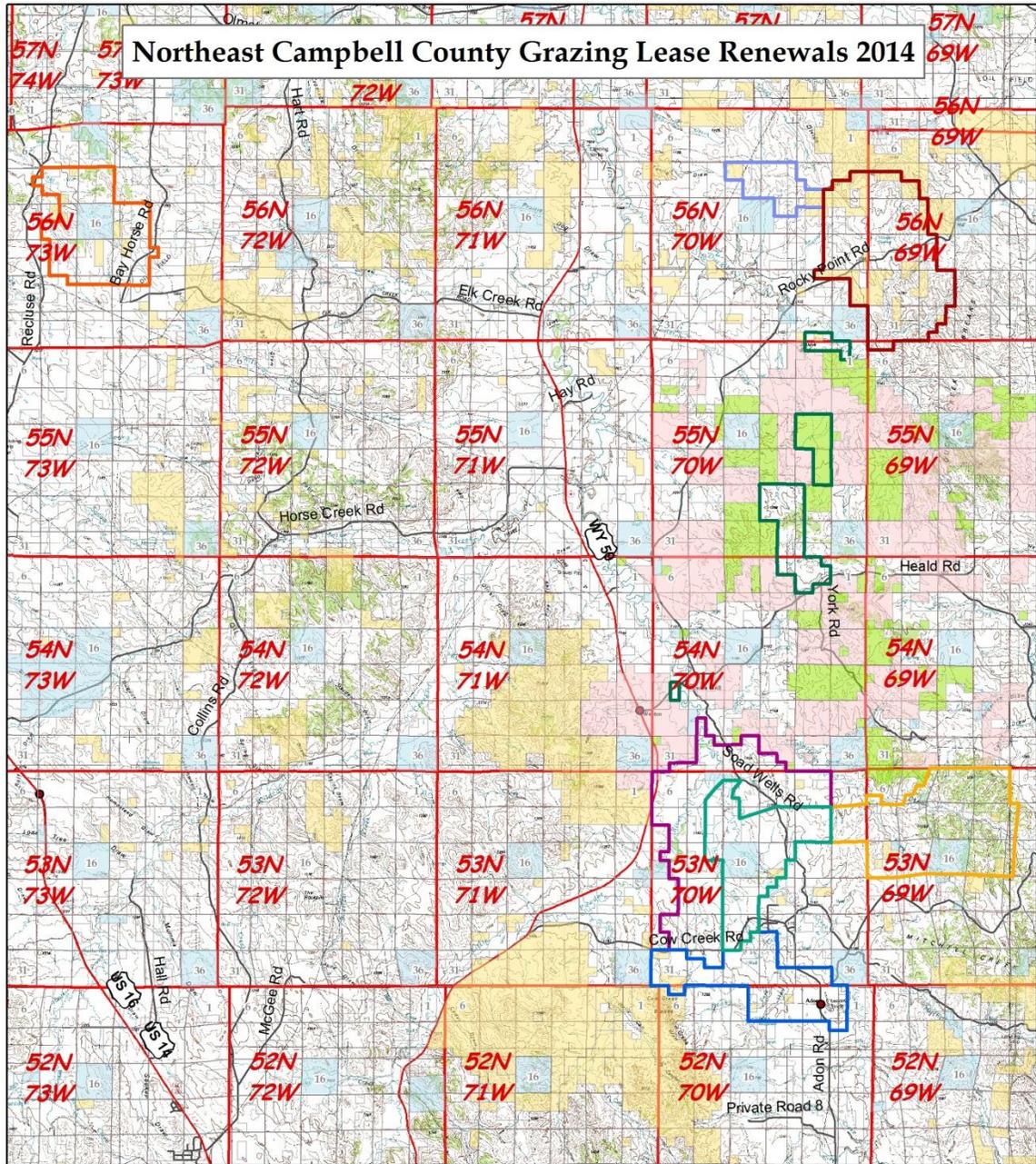
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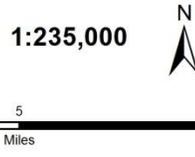
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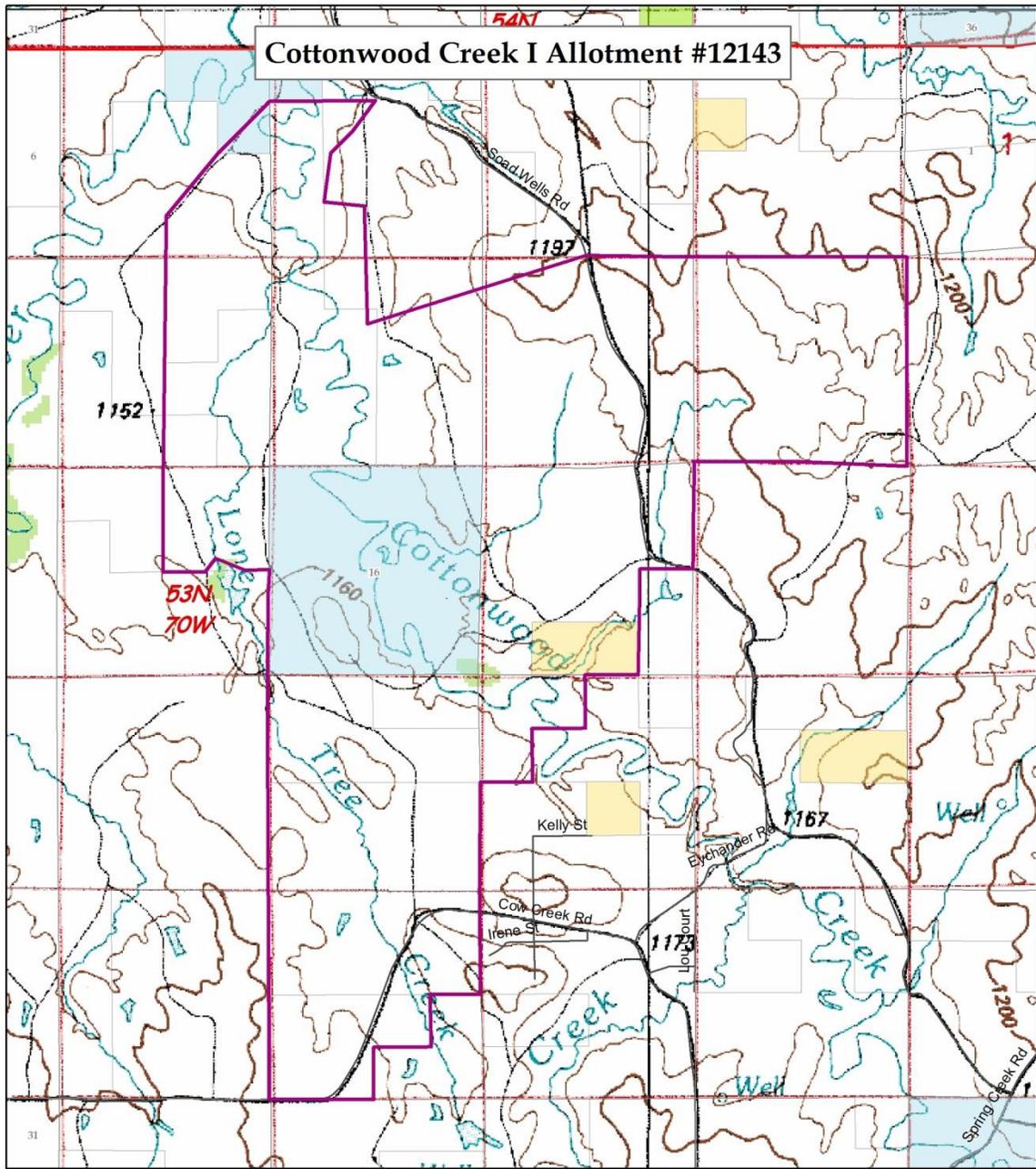
8.0 Attachment 1. Maps



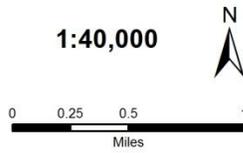
Allotment Name	Land Ownership
Cottonwood Creek I	Bankhead Jones
East Fork	Bureau of Land Management
North Fork Hay Creek	Forest Service
Larrechea	National Grasslands
North Cottonwood Creek	Private
Squaw Butte	State
Tuttle Draw	Water
West Bowman Hill	Township
	Section



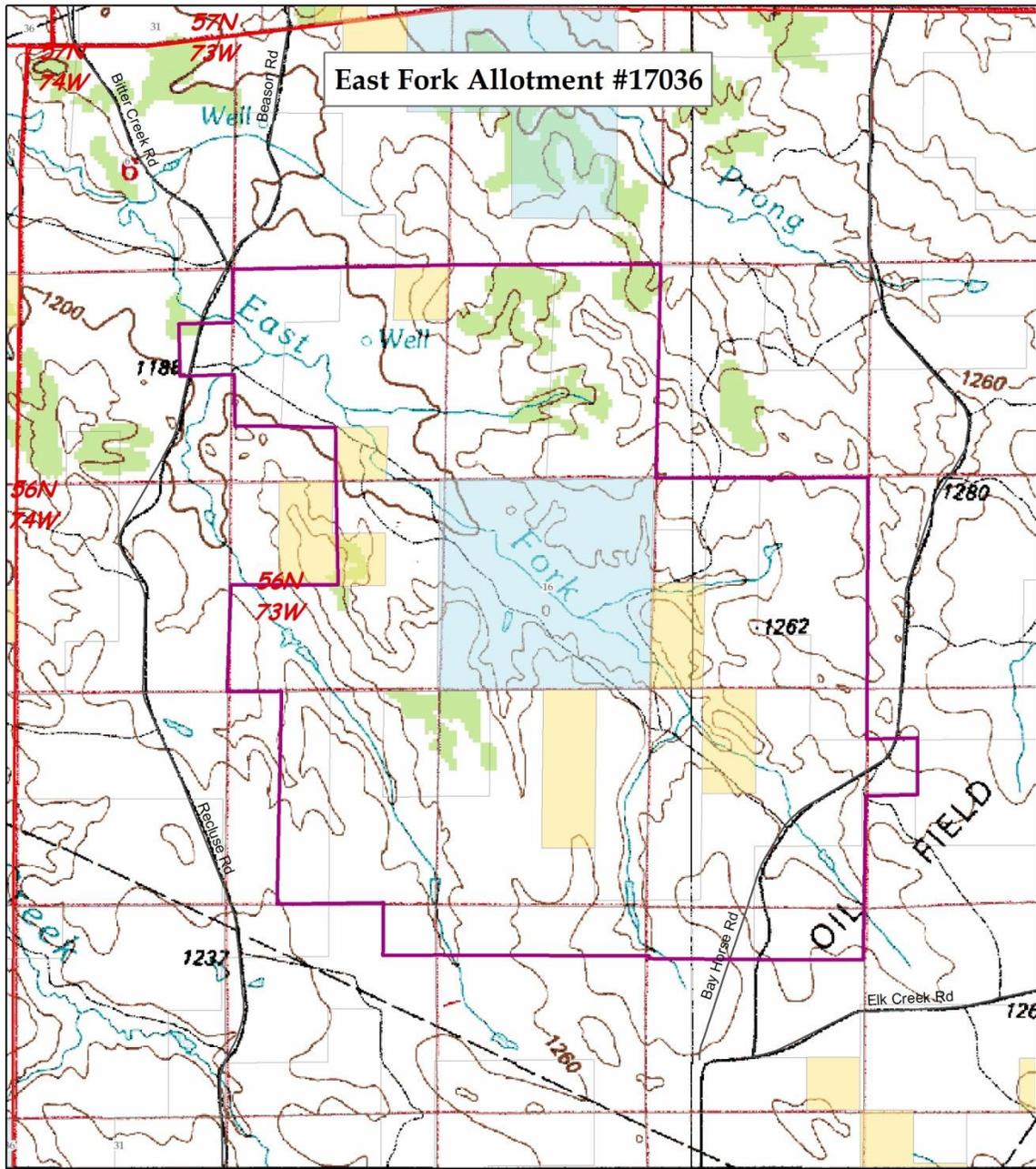
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Cottonwood Creek I Allotment	Township
Land Ownership	Section
Bankhead Jones	
Bureau of Land Management	
Forest Service	
National Grasslands	
Private	
State	
Water	

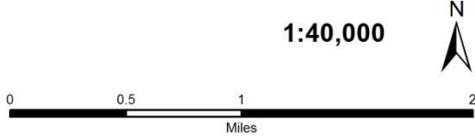


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East Fork Allotment #17036

East Fork Allotment	Township
Bankhead Jones	Section
Bureau of Land Management	
Forest Service	
National Grasslands	
Private	
State	
Water	

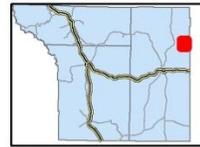
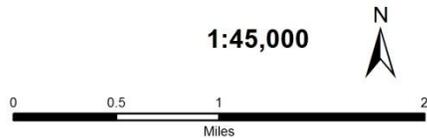


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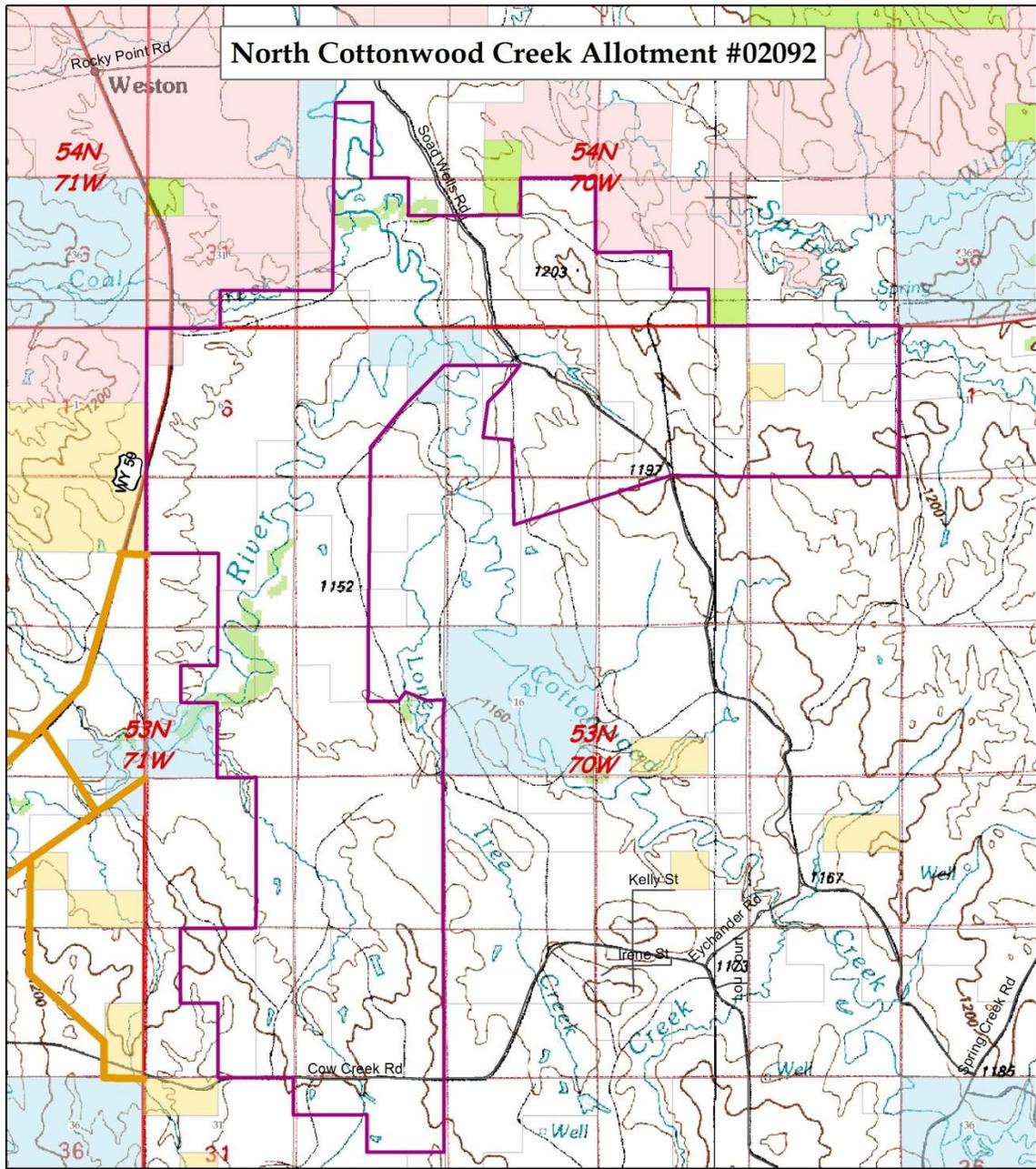
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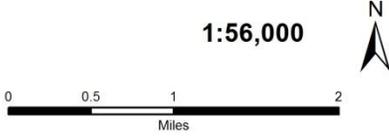
Larrechea Allotment	Township
Bankhead Jones	Section
Bureau of Land Management	
Forest Service	
National Grasslands	
Private	
State	
Water	



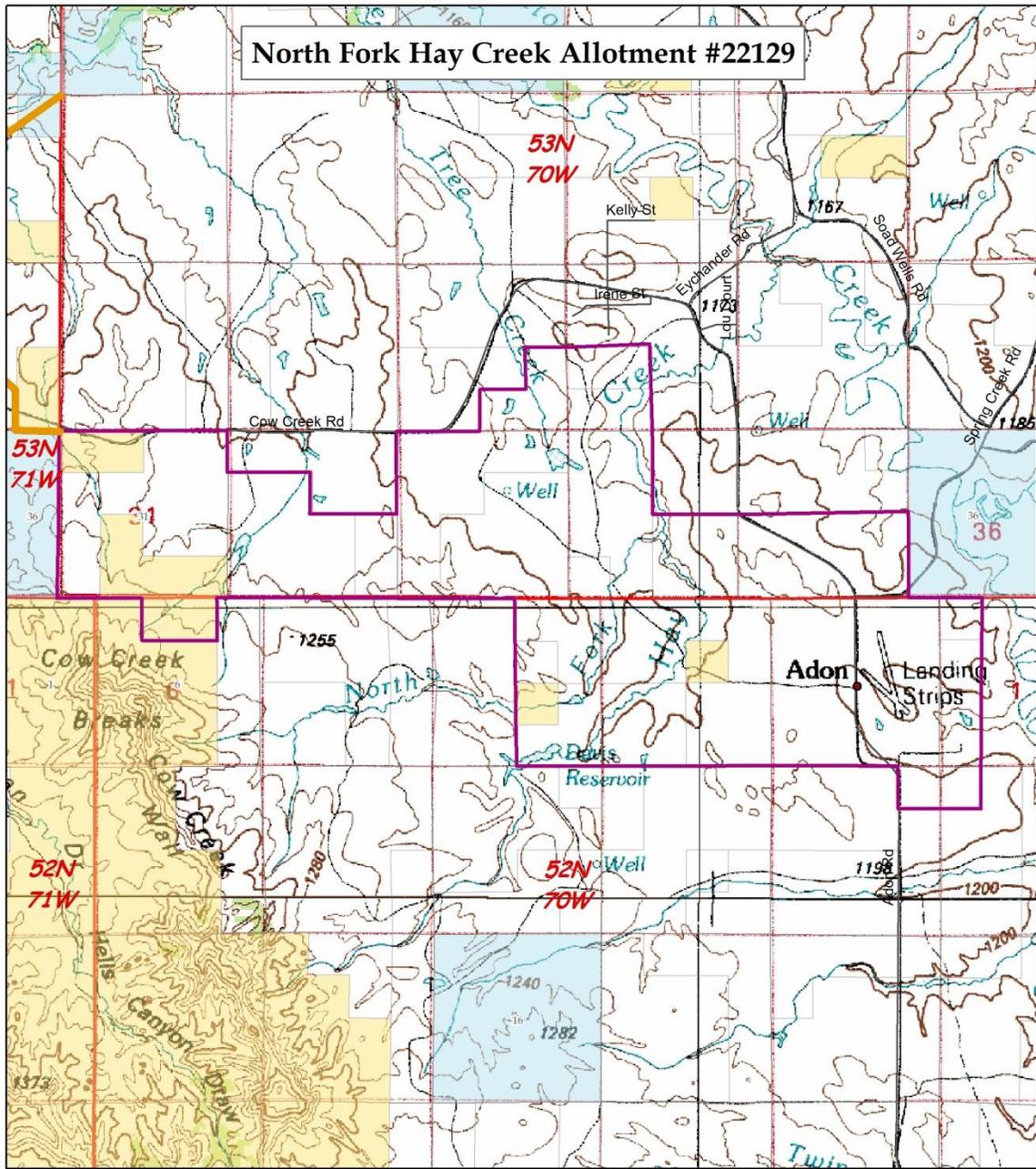
Location Reference
4/10/2014 cdarling



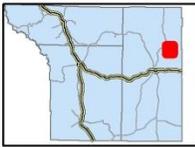
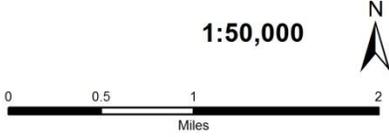
	North Cottonwood Creek Allotment		Township
	Bankhead Jones		Section
	Bureau of Land Management		
	Forest Service		
	National Grasslands		
	Private		
	State		
	Water		



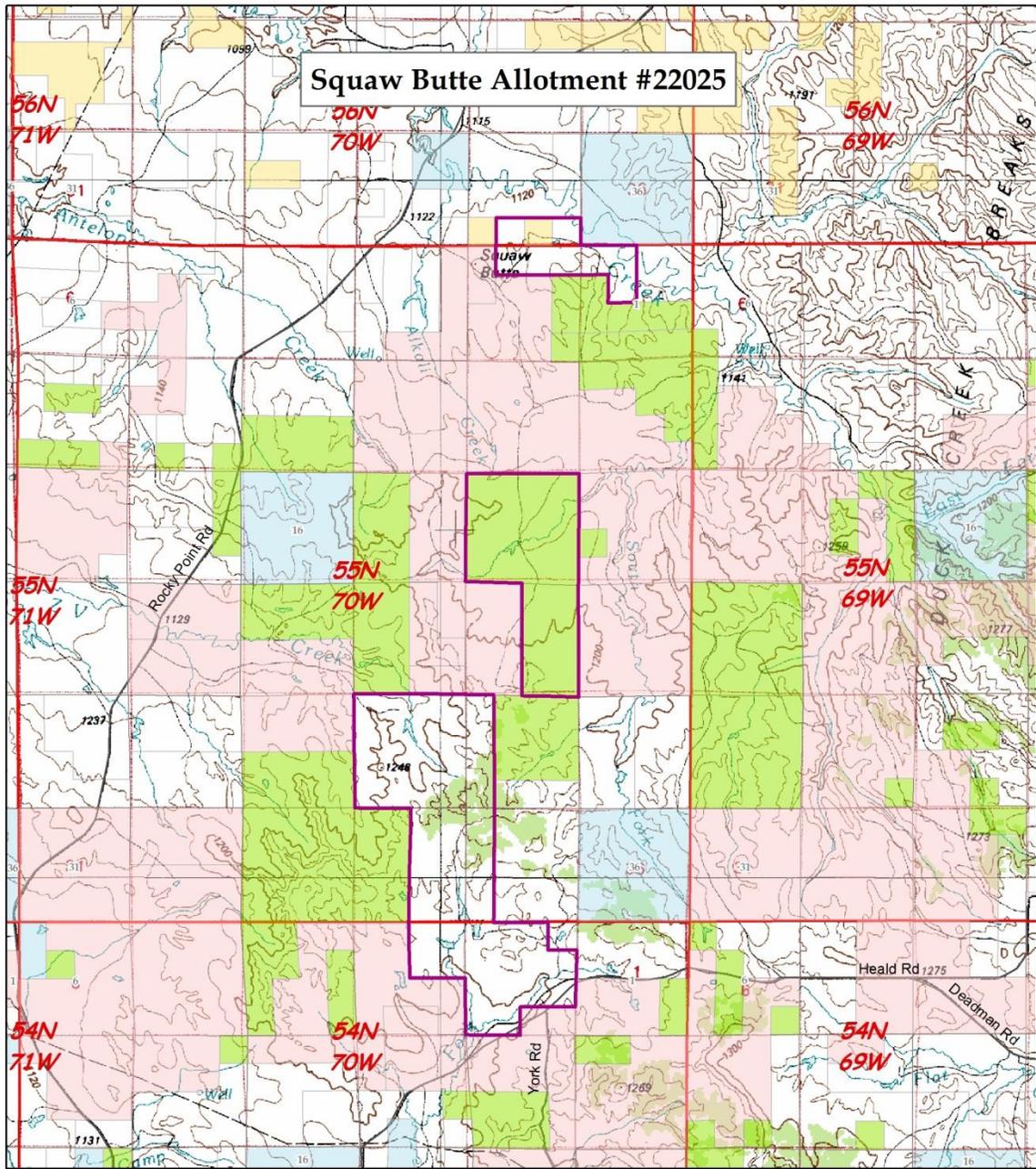
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4/10/2014 c.darling



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	Bankhead Jones		Section
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	Forest Service		
	National Grasslands		
	Private		
	State		
	Water		



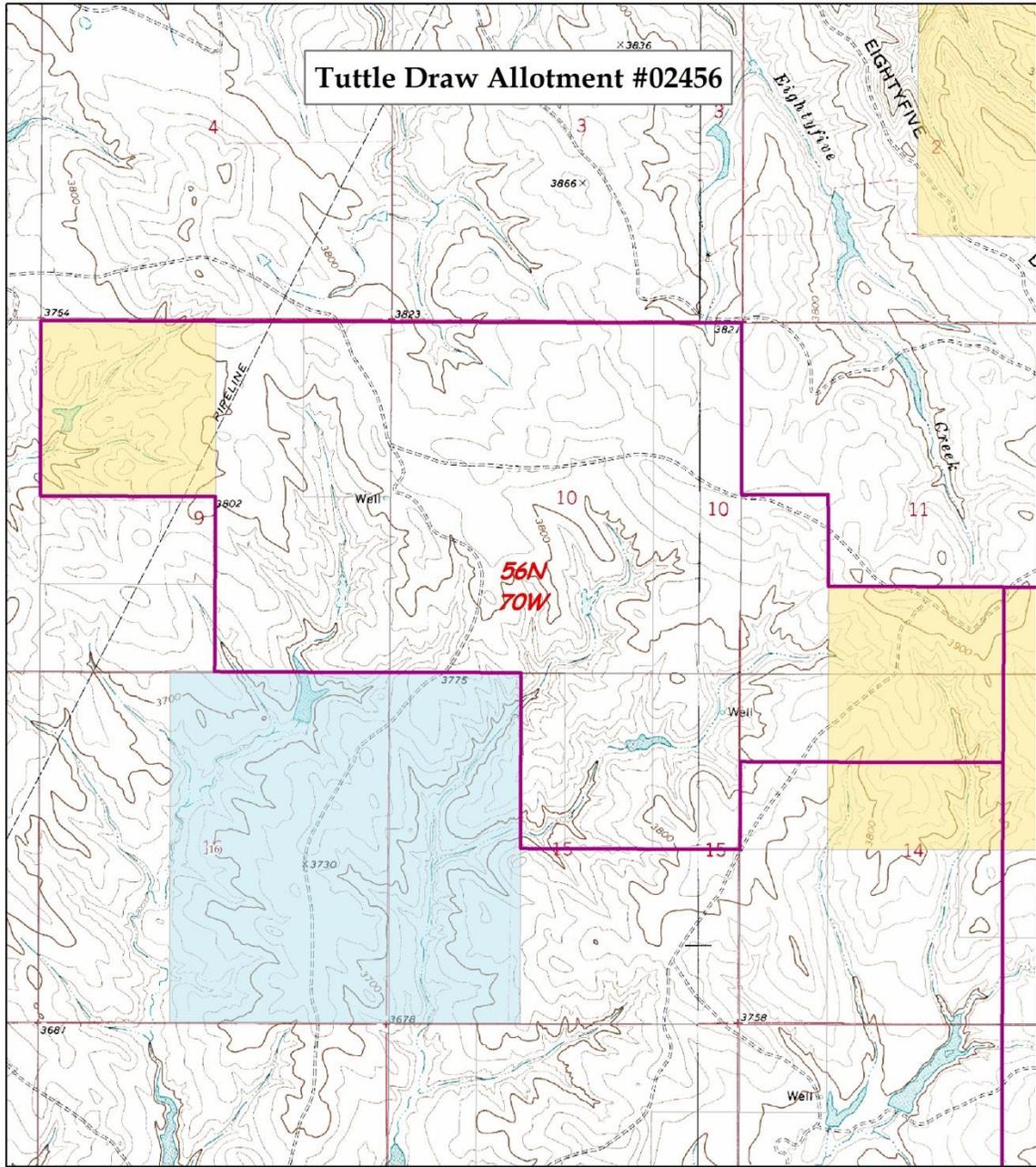
Location Reference
4/10/2014 c.darling



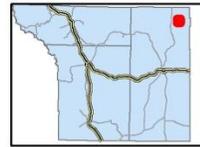
Squaw Butte Allotment	Township
Land Ownership	Section
Bankhead Jones	
Bureau of Land Management	
Forest Service	
National Grasslands	
Private	
State	
Water	



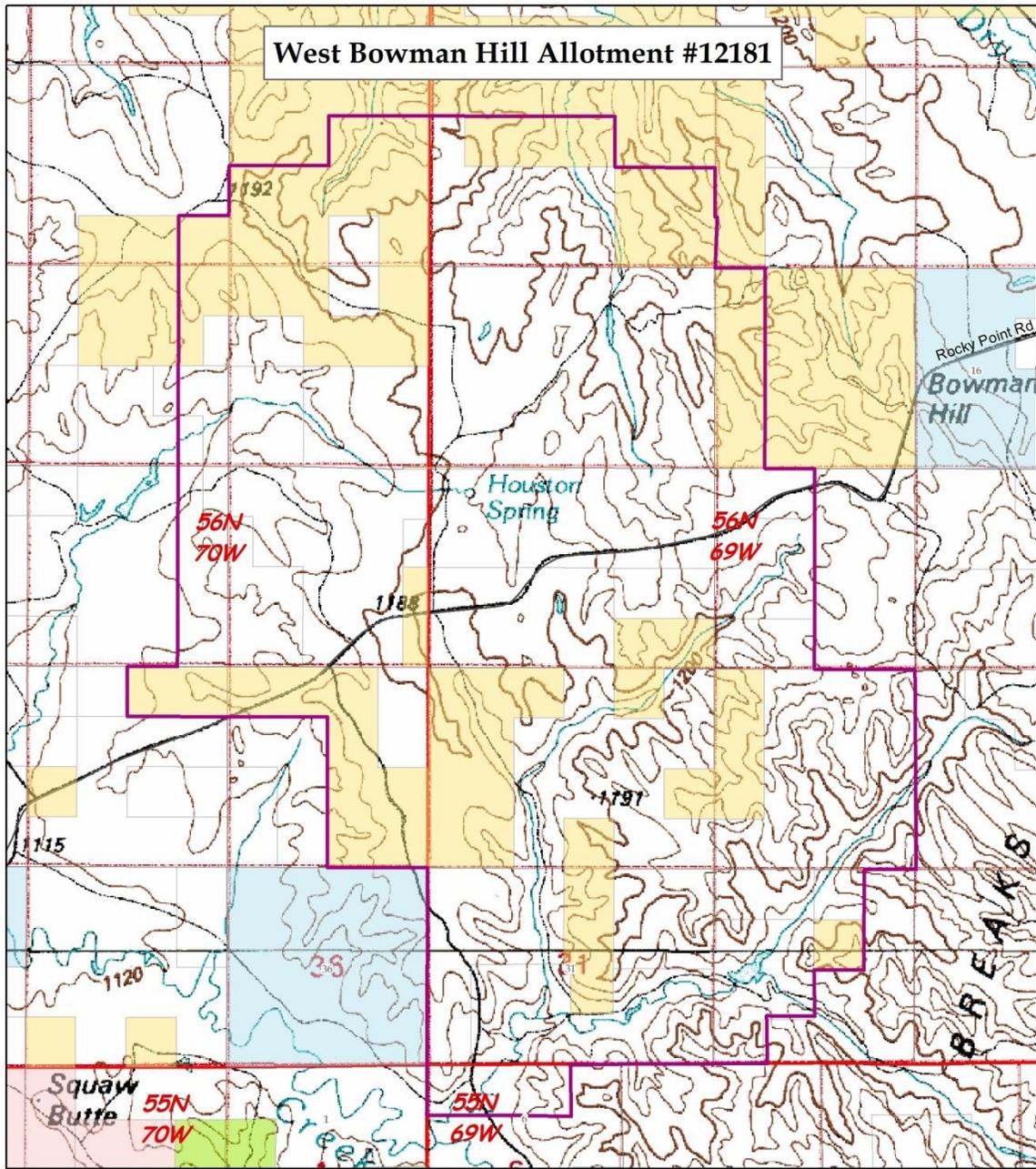
4/10/2014 cdarling



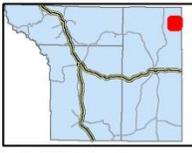
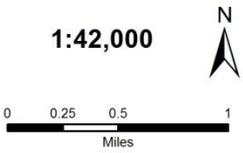
Tuttle Draw Allotment	Township
Bankhead Jones	Section
Bureau of Land Management	
Forest Service	
National Grasslands	
Private	
State	
Water	



4/10/2014 cdarling



West Bowman Hill Allotment	Township
Bankhead Jones	Section
Bureau of Land Management	
Forest Service	
National Grasslands	
Private	
State	
Water	



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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>Threatened</i>				
Ute ladies tresses orchid	Riparian areas with permanent water	NS	NE	No populations known to occur in Campbell County. Continued livestock operations should not affect ULTs.
<i>Proposed</i>				
Northern Long-eared Bat	Conifer and deciduous forest, caves and mines	NS	NLAA	Only known to occur in extreme Northeast WY (mainly Crook and Weston counties, very limited in northern Campbell county.) Continued livestock operations should have little effect on NLBs.
<i>Candidate</i>				
Greater Sage-grouse	Basin-prairie shrub, mountain-foothill shrub	K	MIIH	See GSG discussion in Chapter 4.
<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.

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
<i>Amphibians</i>				

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
Northern leopard frog (<i>Rana pipiens</i>)	Beaver ponds and cattail marshes from plains to montane zones.	S	MIIH	Cattle will be using reservoirs and creeks where NLFs may be present. Vegetation associated with reservoirs and creeks will be altered.
<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.	S	NI	Migrants may stopover. Will not be effected by continued grazing.
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Mature forest cover often within one mile of large water body with reliable prey source nearby.	K	NI	Livestock grazing will have limited impacts to bald eagles.
Brewer's sparrow (<i>Spizella breweri</i>)	Sagebrush shrubland	S	MIIH	Nesting and foraging habitat may be impacted by grazing.
Ferruginous hawk (<i>Buteo regalis</i>)	Basin-prairie shrub, grasslands, rock outcrops	S	MIIH	No documented nests occur within 0.5 miles of the project area. Nesting and foraging habitat may be impacted by grazing. Species may avoid area.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	Basin-prairie shrub, mountain-foothill shrub	S	MIIH	Some mountain-foothill shrub in allotments.
Long-billed curlew (<i>Numenius americanus</i>)	Grasslands, plains, foothills, wet meadows	S	NI	Migrants may stopover.
Mountain Plover	Short-grass prairie with slopes < 5%	NS	NI	Habitat not present
Northern goshawk (<i>Accipiter gentilis</i>)	Conifer and deciduous forests	NP	NI	Foraging or migrating goshawks will not be impacted by grazing.
Peregrine falcon (<i>Falco peregrinus</i>)	Cliffs	NP	NI	Habitat not present.
Sage sparrow (<i>Amphispiza billineata</i>)	Basin-prairie shrub, mountain-foothill shrub	NS	NI	No sage sparrows have been reported in area.
Sage thrasher (<i>Oreoscoptes montanus</i>)	Basin-prairie shrub, mountain-foothill shrub	NS	NI	No sage thrashers have been reported in 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	MIIH	Continued grazing should have minimal impacts.
White-faced ibis (<i>Plegadis chihi</i>)	Marshes, wet meadows	S	NI	Migrants may stopover.

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Open woodlands, streamside willow and alder groves	S	NI	May be present in cottonwood creek beds. Should not be impacted by grazing.
<i>Mammals</i>				
Black-tailed prairie dog (<i>Cynomys ludovicianus</i>)	Prairie habitats with deep, firm soils and slopes less than 10 degrees.	K	MIIH	Colonies present.
Fringed myotis (<i>Myotis thysanodes</i>)	Conifer forests, woodland chaparral, caves and mines	S	MIIH	Limited habitat.
Long-eared myotis (<i>Myotis evotis</i>)	Conifer and deciduous forest, caves and mines	S	MIIH	Limited habitat.
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	MIIH	Habitat present.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	Caves and mines.	NS	NI	Habitat not present.
<i>Plants</i>				
Limber Pine (<i>Pinus flexilis</i>)	Mountains, associated with high elevation conifer species	NS	NI	Suitable habitat not identified in the allotments.
Porter's sagebrush (<i>Artemisia porteri</i>)	Sparsely vegetated badlands of ashy or tufaceous mudstone and clay slopes 5300-6500 ft.	NS	NI	Suitable habitat not identified in the allotments.
<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 8 Proposed Allotments

#	Operator / Project Name	NEPA Document #	Proposed Allotment Analysis Area	Approval
			Name	
1	JM Huber/Prong POD	WY-070-EA10-277	East Fork Allotment (17036)	2010

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