

**U.S. Department of the Interior  
Bureau of Land Management  
Little Snake Field Office  
455 Emerson Street  
Craig, CO 81625-1129**

## **ENVIRONMENTAL ASSESSMENT**

**EA NUMBER:** DOI-BLM-CO-N010-2010-0033-EA

**PERMIT/ALLOTMENT NUMBER:** 0501063/04500, 04501, 04513, 04518, 04553, 04578  
0501096/04506, 04502  
0501246/00014, 04043  
0501062/04508, 04509, 04510

**PROJECT NAME:** Implementation of the Peroulis Grazing Plan (Appendix 1).

Renewal of the grazing permit #0501063, authorized to Peroulis, John and Sons, on the Upper Four Mile #04500, Fortification Rock #04501, West Four Mile #04513, Scandinavia #04518, North Pole Gulch #04553, and State Block EU #04578 Allotments.

Renewal of the grazing permit #0501096, authorized to Peroulis, John and Sons, on the Little Fortification #04502, Lower Fortification #04506 Allotments.

Renewal of the grazing permit #0501062, authorized to Fourmile Sheep LLC, on the Chicken Sage #04508, East Mud Spring Draw #04509, and West Mud Spring Draw #04510 Allotments.

Renewal of the grazing lease for authorization #0501246, authorized to Peroulis, John and Sons on the Round Mountain #00014 and West Black Mountain #04043, which currently expires in 2015, but will be renewed to the same term as all above authorizations for ease of administration.

Unless referred to individually, throughout this document, all allotments encompassed under the Proposed Action and No Action Alternative may be referred to as the “planning area”, see map, Appendix 1 – Attachment 1.

**LEGAL DESCRIPTION:** See Appendix 1 - pages 3 – 7 “Allotments”, for legal and physical descriptions. See Appendix 1 – Attachments 3 – 12, for allotment maps.

**APPLICANT:** Peroulis, John & Sons, Four Mile Sheep LLC.

**PLAN CONFORMANCE REVIEW:** The Proposed Action and No Action Alternative are subject to the following plan:

**Name of Plan:** Little Snake Resource Management Plan and Record of Decision

Date Approved: April 26, 1989

Results: The Proposed Action has been reviewed for conformance with this plan (43 CFR 1610.5, BLM 1617.3).

The Proposed Action is consistent with the Little Snake Resource Management Plan, Record of Decision, Livestock Grazing Management objective to improve range conditions for both wildlife and livestock through proper utilization of key forage plants and adjusting livestock stocking rates as a result of vegetation studies.

See Appendix 1 - page 2, for additional Plan Conformance Review.

**NEED FOR PROPOSED ACTION:** The Proposed Action is needed to respond to expired and expiring permits.

The previous permit for authorization #0501063 was issued for the term 03/01/1999 to 02/28/2009. The previous permit for authorization #0501096 was issued for the term 05/05/2000 to 02/28/2010. The previous permit for authorization #0501062 was issued for the term 03/01/1999 to 02/28/2009. The previous lease for authorization #0501246 was issued for the term 03/01/2005 to 02/28/2015, but will be renewed to the same term as all above authorizations for ease of administration.

These permits and lease are subject to renewal at the discretion of the Secretary of the Interior, who delegated the authority to BLM, for a period of up to ten years. The U.S. Bureau of Land Management has the authority to renew the livestock grazing permits consistent with the provisions of the *Taylor Grazing Act*, *Public Rangelands Improvement Act*, *Federal Land Policy and Management Act*, and Little Snake Field Office's *Resource Management Plan/Environmental Impact Statement*. This Plan/EIS has been amended by *Standards for Public Land Health in the State of Colorado*.

The following Environmental Assessment (EA) will analyze the impacts of implementation of the Proposed Action and associated livestock grazing on public land managed by the BLM. The analysis will recommend terms and conditions to the permits and lease which improve or maintain public land health. The Proposed Action will be assessed for meeting land health standards.

In order to graze livestock on public land, the livestock producer (permittee/lessee) must hold a grazing permit and or lease. The grazing permittee/lessee has a preference right to receive the permit/lease if grazing is to continue. The land use plan allows grazing to continue. This EA will be a site specific look to determine if grazing should continue as provided for in the land use plan and proposed grazing plan and to identify the conditions under which it can be renewed.

**PUBLIC SCOPING PROCESS:** The BLM Little Snake Field Office sent out a Notice of Public Scoping on December 17, 2007 to determine the level of public interest, concern, and resource conditions on the grazing authorizations that were up for renewal in FY 2009, and a Notice of Public Scoping on December 18, 2008 to determine the level of public interest, concern, and

resource conditions on the grazing authorizations that were up for renewal in FY 2010. A Notice of Public Scoping was posted on the Internet, at the Colorado BLM Home Page, asking for public input on grazing permit and lease renewals. Individual letters were sent to the affected permittees and lessees informing them that their permit and/or lease was up for renewal and requesting any information they wanted included or taken into consideration during the renewal process. The issuance of a grazing permit/lease is being carefully analyzed within the scope of the specific action being taken, resources issues or concerns, and public input received.

**BACKGROUND:** See Appendix 1 - pages 3 – 7 “Allotments”, for allotment background information.

**DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:**

**Proposed Action: Implementation of the Peroulis Grazing Plan (Appendix 1), and renewal of the grazing permits and lease listed in the grazing plan for a period of ten years and expiring February 28, 2020. The permits and lease would be renewed as follows:**

**From:  
Authorization #0501063, Peroulis, John and Sons**

Allotment Name & Number	Livestock Number & Kind	Dates		% PL	AUMs
		From	To		
Upper Four Mile #04500	1898 Sheep	05/20	06/10	89	244
	100 Cattle	06/01	06/03	89	9
	1960 Sheep	10/10	10/31	89	<u>252</u>
				<b>Total</b>	<b>505</b>
Fortification Rock #04501	1323 Sheep	05/01	06/05	79	248
	50 Cattle	07/15	08/31	79	62
	905 Sheep	10/10	10/31	79	<u>104</u>
				<b>Total</b>	<b>414</b>
West Four Mile #04513	452 Sheep	05/02	06/10	100	119
	549 Sheep	10/10	10/31	100	<u>80</u>
				<b>Total</b>	<b>199</b>
Scandinavia #04518	5112 Sheep	04/15	04/30	100	538
	3630 Sheep	11/01	11/15	100	<u>358</u>
				<b>Total</b>	<b>896</b>
North Pole Gulch #04553	2170 Sheep	05/01	05/07	100	100
	50 Cattle	06/01	06/07	100	12
	521 Sheep	10/10	10/31	100	<u>75</u>
				<b>Total</b>	<b>187</b>

State Block EU #04578	588 Sheep	05/01	06/05	58	81
	50 Cattle	07/15	07/31	58	16
	455 Sheep	10/10	10/31	58	38
	3028 Sheep	05/01	06/05	3	22
	50 Cattle	07/15	09/30	3	4
	2200 Sheep	10/10	10/31	3	<u>10</u>
				Total	171

### Special Terms and Conditions

1. Understanding that there are 3 bands run in conjunction with Four Mile Sheep LLC, each allotment (or pasture within an allotment) shall be deferred until seed ripe one year in four with the following exceptions. Deferment will not be required on the following allotments, provided the following conditions every year: Scandinavia spring use will be limited to 2 weeks. North Pole Gulch will be used as a stopover pasture for sheep between May 1 and May 15 for no more than one week, and cattle may use the allotment as a sorting area any time between May 15 and June 15, for no more than one week. Spring use within the Upper Four Mile Allotment will not exceed 50% of the total AUMs available on the allotment. Cattle may trail through the Upper Four Mile Allotment anytime between May 20 and June 15, but use will be limited to 3 days. Due to the small percentage of public land, no deferment will be required in the east pasture of State Block EU at this time.

2. An annual operating plan will be developed by the permittee, by pasture, prior to authorization, to ensure deferment is scheduled, and when and where cattle use may occur.

3. Spring sheep use will be limited to 60% of the total active AUMs, with the exception of Upper Four Mile Allotment, which will be limited to 50%.

4. In the Fortification Rocks and west pasture of the State Block EU Allotment, cattle use may occur anytime between July 15 and October 31, but use will be limited to 2 weeks in pasture.

5. Cattle AUMs may be expanded for fall sheep use not taken, and vice versa, but not for spring sheep use not taken.

6. The preference on the Scandinavia Allotment has been reduced from 1375 to 1256. Of the 1256, only 896 will be authorized annually for the next 3 years. The remaining 360 will be held in voluntary nonuse. Beginning in 2001, you and the BLM will monitor jointly for three years to determine if these AUMs are available on a permanent basis. If monitoring shows that these 360 AUMs are available, they may be activated. If monitoring shows they are not available, they will be removed from your preference.

7. Where fencing is constructed with woven wire, gates will be left open when livestock are not in the area.

**Authorization #0501096, Peroulis, John and Sons**

Allotment Name & Number	Livestock Number & Kind	Dates		% PL	AUMs
		From	To		
Lower Fortification #04506	540 Sheep	05/01	06/10	48	70
	20 Cattle	07/15	10/31	48	34
	173 Sheep	10/10	10/31	48	<u>12</u>
				<b>Total</b>	<b>116</b>
Little Fortification #04502	162 Sheep	05/10	06/10	100	34
	3 Cattle	07/15	10/31	100	11
	78 Sheep	10/10	10/31	100	<u>11</u>
				<b>Total</b>	<b>56</b>

**Special Terms and Conditions**

1. Each pasture will be deferred until seed ripe at least one in four years.
2. Spring sheep use will be limited to 60% of the total active AUMs for each allotment.
3. Cattle use is limited to two weeks in any one pasture between July 15 and October 31.
4. In the riparian pasture of the Lower Fortification Allotment Sheep use will not occur after 06/10 and cattle use will be between July 15 and August 1.
5. Cattle AUMs may be expanded for fall sheep use not taken, and vice versa, but not for spring sheep use not taken.

**Authorization #051062, Fourmile Sheep, LLC**

Allotment Name & Number	Livestock Number & Kind	Dates		% PL	AUMs
		From	To		
Chicken Sage #04508	943 Sheep	05/01	06/15	100	285
	50 Cattle	07/15	09/15	100	104
	597 Sheep	10/10	10/31	100	<u>86</u>
				<b>Total</b>	<b>475</b>
East Mud Spring Draw #04509	480 Sheep	05/01	06/05	60	68
	50 Cattle	09/16	09/30	60	15
	350 Sheep	10/10	10/31	60	<u>30</u>
				<b>Total</b>	<b>113</b>
West Mud Spring Draw #04510	354 Sheep	05/01	06/05	100	84
	50 Cattle	09/16	09/30	100	25
	215 Sheep	10/10	10/31	100	31
				<b>Total</b>	<b>140</b>

## **Special Terms and Conditions**

- 1. Understanding that there are 3 bands run in conjunction with John Peroulis and Sons, each allotment (or the pastures within an allotment) shall be deferred until seed ripe one year in four.**
- 2. An annual operating plan will be developed by the permittee, by pasture, prior to authorization, to ensure deferment is scheduled, and when and where cattle use may occur. It is your responsibility to ensure that deferment is included in the annual operating plan.**
- 3. Spring sheep use will be limited to 60% of the total active AUMs on each allotment.**
- 4. Cattle use may occur anytime between July 15 and October 31, but use will be limited to 2 weeks in each pasture in West Mud Springs and Chicken Sage and 2 weeks in East Mud Springs.**
- 5. Cattle use may be expanded for fall sheep use not taken, and vice versa, but not for spring sheep use not taken.**
- 6. The one mile of fence identified in the Chicken Sage Allotment will be constructed prior to the 2001 grazing season. BLM will provide materials and Fourmile Sheep LLC will provide labor for construction.**

**To:**

### **Administrative Actions**

**These actions are necessary to facilitate practical management and for ease of administration.**

- Combine/consolidate authorization #0501096 (Little Fortification & Lower Fortification Allotments) into authorization #0501063, both are authorized to Peroulis, John and Sons.**
- Combine/consolidate the Lower Fortification Allotment #04506 and the Little Fortification Allotment #04502, the allotment will retain the Lower Fortification Allotment name and number and the Little Fortification Allotment would be eliminated. Only the public lands of the Little Fortification Allotment would be merged into the Lower Fortification Allotment. Private lands associated with the Little Fortification Allotment will be removed from allotment boundaries (see map, Appendix 1 - Attachment #8). The Lower Fortification Allotment acreage would be modified as shown in table below:**

<b>Current Acreage Lower Fortification #04506</b>	<b>Current Acreage Little Fortification #04502</b>	<b>New Acreage Lower Fortification #04506</b>
<b>967 acres BLM 680 acres private 1,647 total acres @ 48% public lands 116 active AUMs</b>	<b>314 acres BLM 251 acres private 565 total acres @ 100% public lands 56 AUMs</b>	<b>1,281 acres BLM 680 acres private 1,961 total acres @ 65% public lands 172 AUMs</b>

- **Adjust the percent public lands in the Scandinavia Allotment to account for the State Land Board Lands lease recently acquired by Peroulis, John & Sons. This action was proposed in the 1999 permit renewal EA (CO-016-LS-99-09), but the state lease was just acquired in November of 2009. Percent public lands will be adjusted from 100% to 92%, livestock numbers have been adjusted accordingly in this EA.**
- **The 1999 permit renewal reduced the active AUMs in the Scandinavia Allotment from 1,256 to 896, placing 360 AUMs in suspension. This reduction was based on range conditions and stocking rates on similar adjacent allotments. Monitoring over the 3 year period from 2001-2003 was conducted to determine if these AUMs were available for reinstatement. Documentation indicates that these AUMs are available. However, since this 1999 permit renewal the permittee has only used an average of 430 AUMs annually, 48% of the 896 active AUMs. Therefore, these 360 AUMs will remain in suspension and allocated toward maintaining rangeland health. If the need for reinstatement is provided, then reinstatement would be considered.**
- **Approval of this plan will implement Actual Use billing for all authorizations under this plan. Actual Use reports must be submitted within 15 days after livestock leave BLM allotments in both the spring and fall. Sheep use must be submitted separately from any cattle and horse use.**

## Authorized Use & Terms and Conditions

### Authorization #0501063 Peroulis, John & Sons (sec 3)

Allotment Name & Number	Livestock Number & Kind	Dates		% PL	AUMs
		From	To		
Scandinavia #04518	2175 Sheep	04/15	05/25	92	539
	1965 Sheep	11/01	11/30	92	357
		suspended		92	<u>360</u>
				Total	1,256
North Pole Gulch #04533	370 Sheep	05/01	06/15	79	112
	187 Sheep	10/01	11/30	79	<u>75</u>
				Total	187
West Four Mile #04513	356 Sheep	05/01	06/20	100	119
	200 Sheep	10/01	11/30	100	<u>80</u>
				Total	199
State Block EU #04578	2000 Sheep	05/01	06/30	13	104
	1292 Sheep	10/01	11/30	13	<u>67</u>
				Total	171
Fortification Rocks #04501	782 Sheep	05/01	06/30	79	248
	515 Sheep	09/15	11/15	79	<u>166</u>
				Total	414
Lower Fortification #04506	400 Sheep	05/01	06/30	65	104
	255 Sheep	09/15	11/15	65	<u>68</u>
				Total	172
Upper Four Mile #04500	1230 Sheep	05/20	06/30	89	302
	565 Sheep	10/01	11/30	89	<u>202</u>
				Total	504

**Authorization #0501246 Peroulis, John & Sons (sec 15)**

Allotment Name & Number	Livestock Number & Kind	Dates		% PL	AUMs
		From	To		
Round Mountain #00014	188 Sheep	05/01	12/31	100	303
West Black Mountain #04043	52 Sheep	05/10	11/30	100	70

**Authorization #0501062 Four Mile Sheep LLC (sec 3)**

Allotment Name & Number	Livestock Number & Kind	Dates		% PL	AUMs
		From	To		
W Mud Spring Draw #04510	250 Sheep	05/01	06/20	100	84
	140 Sheep	10/01	11/30	100	<u>56</u>
				<b>Total</b>	<b>140</b>
E Mud Spring Draw #04509	282 Sheep	05/01	06/30	60	68
	189 Sheep	10/01	11/30	60	<u>45</u>
				<b>Total</b>	<b>113</b>
Chicken Sage #04508	710 Sheep	05/01	06/30	100	285
	473 Sheep	10/01	11/30	100	<u>190</u>
				<b>Total</b>	<b>475</b>

**Special Terms and Conditions (all authorizations)**

1. 20% of active AUMs in each allotment may be used for cattle and horses. Cattle and horse use may only occur between 05/15 and 08/15, with the exception of T&C #2 below. Cattle & horses use is limited to 14 days in each allotment or pastures within allotments. Cattle and horse use will reduce available AUMs for sheep. Cattle and horse use must be reported separately from sheep use on Actual Use reports.
2. Cattle and horse use is only permitted for 14 days between 05/01 – 06/15 in the south pasture of the Upper Four Mile Allotment due to the abundance of annual grasses. This early season restriction is to use livestock management to help reduce the density and spread of annual grasses.
3. Sheep are to be herded, trailed, and bedded so that the same areas are not used in two consecutive years.
4. Every year, two allotments or pastures within allotments (or combination of) will be rested. Which allotments or pastures are rested is at the permittees discretion with

**BLM approval, unless BLM mandates certain allotments or pastures be rested for specific management purposes. Rested allotments or pastures may be trailed through over one day, but will not be used for camps, stopovers, or bedding areas. The Scandinavia Allotment and the east pasture of the State Block EU Allotment are exempt from this T&C.**

- 5. Trailing: All trailing must be reported to the BLM prior to the actual event. During spring trailing, temporary annual authorizations will provide for up to nine days (maximum of three days in each allotment) for the Headquarters Allotment #04516, Thornburg Gulch Allotment #04522, and Pole Gulch Allotment #04514. Authorized dates are flexible and permittee coordination between individual allotment permit holders and the BLM is mandatory prior to use. Trailing use in these allotments must be accounted for in Actual Use reports and will be billed accordingly. Trailing through any other allotments must occur within one daylight period with no stopovers or overnights. This annual authorized use will not appear on the actual permit and trailing for all authorizations under the proposed grazing plan will be authorized and billed in authorization #0501063.**

### **Range Improvements**

**The following range improvements would be implemented over the duration of the grazing permit. Some of the following improvements may be modified from what is described at this time and other improvements may be added, as needed, to meet objectives. All projects are dependent on requested/available funding. Any added projects will require separate NEPA analysis and appropriate clearances.**

- Scandinavia Water Developments/Scandinavia Allotment #04518 – Permittee will construct 3 livestock ponds (all less than ¼ acre surface area) and will coordinate with BLM to install an enclosure, solar pump, and piping on an existing historic well to pump water into an existing reservoir. Locations: T11N R93W SW SW sec 5, two reservoirs. T11N R93W center of sec 22, one reservoir and well. A cooperative agreement assigning maintenance responsibilities to the permittee would be signed prior to project implementation. For the well improvement, BLM would cooperate on, and approve project design. Permittee would be responsible for all above ground labor and materials associated with the well. BLM would provide the pump and all enclosure materials. Permittee would provide all labor for reservoirs. This project is for improved livestock distribution and protection of historic resources. See map, Appendix 1- - Attachment #3.**
- Scandinavia Cheatgrass Control/Scandinavia Allotment #04518 - The proposed treatment consist of approximately 1,000 acres of BLM land in T11N R93W aerially treated with the herbicide Plateau or Panoramic (active ingredient: imazapic) in order to prevent the germination of cheatgrass. In the winter/early spring, aerially seed the treatment unit with native perennial grasses that are appropriate for the ecological site. The application rate to which the herbicide would be applied is 4 oz/acre. The herbicide would be applied aerially with a fixed wing aircraft. Application is targeted**

to occur in October/November of 2011. The seed mix would contain the following species: western wheatgrass (arriba), basin wildrye, and Indian ricegrass and would be applied at a rate of 8 lbs/acre. Native shrub populations and densities are adequate in the treatment area to provide viable seed source to maintain and enhance native woody vegetation. This project is for habitat improvement, improved livestock distribution, and restoration of native vegetation. See map, Appendix 1- Attachment #3.

- **North Pole Gulch Cactus Control/North Pole Gulch Allotment #04553 – A 500 acre treatment would occur in T12N R91W. Treatment would involve aerial spraying application, using the herbicide Outpost (active ingredient picloram) at 1.5 pints/per acre. Spraying will be done when cactus is flowering, May-July. This project is for moving allotment toward meeting land health standards, habitat improvement, better livestock distribution, and improved native vegetation diversity. See map, Appendix 1- Attachment #4.**
- **West Four Mile Cactus Control/West Four Mile Allotment #04513 - A 500 acre treatment would occur in T12N R91W. Treatment would involve aerial spraying application, using the herbicide Outpost (active ingredient picloram) at 1.5 pints/per acre. Spraying will be done when cactus is flowering, May-July. This project is for moving allotment toward meeting land health standards, habitat improvement, better livestock distribution, and improved native vegetation diversity. See map, Appendix 1- Attachment #5.**
- **State Block EU Allotment Reconfiguration/State Block EU Allotment #04578 – Realign an existing pasture fence to include all BLM lands and separate state lands. Currently the east pasture has 356 acres of BLM lands and over 10,000 acres of State Land Board Lands. By reconfiguring this fence boundary the state lease would manage the majority of acreage within this state land block and BLM would manage only BLM lands with a small portion of state lands. All fence construction would be constructed to BLM standards for wildlife friendly fences and sage grouse protection. This project is primarily for ease of administration and is a low priority relative to resource benefit projects. See map, Appendix 1- Attachment #6.**
- **Fortification Rocks Solar Well/Fortification Rocks Allotment #04501 – Drill a well and install a solar powered pump feeding two or more sheep troughs. Currently there is no reliable water in the SW portion of this allotment making this portion of the allotment unfeasible for sustained livestock use and rest rotational grazing. The permittee would be responsible for all drilling, including the cost associated with a “dry hole”. In addition, permittee would be responsible for above ground labor and materials. BLM would pay for pumps, casing, exclosure material, and troughs. Approximate location is T10N R91W SW ¼ sec 33. This project is for better livestock distribution and to facilitate pasture rest and deferment. See map, Appendix 1- Attachment #7.**

- Fortification Creek Livestock Crossing/Lower Fortification Allotment #04506 - Develop infrastructure that would facilitate livestock crossing the incised channel of Fortification Creek in the southern portion of this allotment. Currently there are very few areas where sheep, and especially lambs, can cross this creek heading toward the pasture east of Highway 13 or shipping corrals. Seasonal flows and fluctuations of the creek can hamper this movement as well. Currently the only good access for eastern movement is at the far north end of the allotment, the pasture east of Highway 13 cannot be easily accessed from this point. A crossing structure will be installed such as a: bridge, culvert, earthen dike, or other structure that would facilitate this movement. This portion of the creek is rated as Functioning at Risk with an upward trend. The potential exists to design a structure(s) that would facilitate livestock crossing and riparian improvement as well. A structure such as described here would also assist recreational use of the public lands in this area. The permittee would participate in project cost sharing. Approximate location is T10N R91W S ½ sec 36. This project is for improved livestock distribution, facilitate livestock movement, and riparian restoration. See map, Appendix 1- Attachment #8.**
- Chicken Sage Fence Relocation/Chicken Sage Allotment #04508 – Remove the north/south pasture fence and reuse materials to rebuild an east/west pasture fence. The north/south fence was constructed as a riparian pasture fence prior to current permittee acquisition of this permit when the allotment was used for season long cattle grazing. Under the current sheep grazing scenario, riparian protection is accomplished by active herding. By realigning this fence, it would still allow the riparian pasture to exist and be rested or deferred as needed. The fence would be constructed to BLM specifications for a 4-wire livestock fence with all construction adhering to BLM standards for wildlife friendly fences and sage grouse protection. This proposed alignment would also reduce fencing/wildlife conflicts along the east/west migration route. This project was initially approved in the 1999 permit renewal EA (CO-016-LS-99-09) but was not constructed. There is no documentation that planning, flagging, staking, or clearances were conducted. BLM would supply any materials that are not available from removal of the old fence. The permittee would provide all labor. A cooperative agreement assigning maintenance responsibilities to the permittee would be signed prior to project implementation. Approximate location would be T10N R91W, crossing sections 10 & 11. This project is for ease of livestock movement and to facilitate pasture rest and deferment. See map, Appendix 1- Attachment #11.**
- Chicken Sage Reservoirs/Chicken Sage Allotment #04508 – Associated with the above fencing relocation project. The permittee would construct 6 to 8 small pit reservoirs (all less than ¼ acre surface area), 3 to 4 in each of the new north and south pastures. Exact locations are to be determined but general locations are T10N R91W sections 3, 10, 11, 14, 15. This project is for improved livestock distribution and to facilitate pasture rest and deferment. See map, Appendix 1-Attachment #11.**

**Mitigative Measures:**

**Wildlife:** Water development projects should not be constructed from March 1 to June 30 to prevent disruption of nesting grouse species. Final locations of all water development projects would be cleared with a wildlife biologist before construction to ensure minimal impacts to grouse species. All fencing will be constructed to adhere to BLM standards for wildlife friendly fences and sage grouse protection.

**Cultural:** The following sites have known adverse effects and mitigation is required (Collins et. al 2002; Keesling et. al 2000). It is proposed that:

- Site 5MF.1715 has one hearth currently being impacted by a cattle trail cutting through it. Mitigation of the site was recommended in 2000 when the site was reevaluated, mitigation has not been completed.
- Site 5MF.3858 has two hearths currently being impacted by a cattle trail cutting through it. Mitigation of the site was recommended in 2000 when the site was reevaluated, mitigation has not been completed.
- Site 5MF.4100 has one hearth and one charcoal stain currently being impacted by a cattle trail cutting through it. Mitigation of the site was recommended in 2000 when the site was reevaluated, mitigation has not been completed.

These sites must be revisited to determine if any mitigation is still applicable. After site revisits, proposed mitigations need to be determined in consultation with the State Historic Preservation Office. Mitigation must be complete by FY2013.

#### **No Action Alternative**

The proposed grazing plan would not be implemented. The permits (#0501063, #0501096, #0501062) would be renewed continuing previous authorized terms and conditions. The grazing lease (#0501246) would not be renewed maintaining its original expiration date of 02/28/15.

#### **Alternatives Considered but not Analyzed:**

#### **No Grazing Alternative**

No livestock grazing would take place under this alternative.

This alternative is eliminated from detailed study because it is not a realistic, implementable alternative nor does it meet the requirements of the Federal Land Policy and Management Act of 1976. When the RMP was approved, it was determined that livestock grazing was an appropriate use of this land. Eliminating grazing is not analyzed because no new issues or concerns have been identified that would require this action.

### **AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES/MITIGATION MEASURES**

#### **CRITICAL RESOURCES**

#### **AIR QUALITY**

Affected Environment: The planning area does not lie within any special designation air sheds or non-attainment areas.

Environmental Consequences, Both Alternatives: Authorizing cattle and/or sheep grazing would not cause regional air quality impairment under either alternative. The existing native plant composition provides sufficient cover to the soil surface to protect it from excessive wind erosion. Vehicular access on existing roads for livestock management activities would result in minimal releases of particulate matter (dust) emissions, but this would be minor and not affect the overall air quality of the area.

Mitigative Measures: None.

Name of specialist and date: Emily Spencer, 01/20/10.

### **AREA OF CRITICAL ENVIRONMENTAL CONCERN**

Affected Environment: Not present.

Environmental Consequences: None.

Mitigative Measures: None.

Name of specialist and date: Kimberly Miller, 01/19/10.

### **CULTURAL RESOURCES**

Affected Environment: Grazing authorization renewals are undertakings under Section 106 of the National Historic Preservation Act. During Section 106 review, a cultural resource assessment was completed for each allotment on December 3, 2009 by Erin M. Parks, Little Snake Field Office Archaeologist (Parks 2010). The assessment followed the procedures and guidance outlined in the 1980 National Programmatic Agreement Regarding the Livestock Grazing and Range Improvement Program, IM-WO-99-039, IM-CO-99-007, IM-CO-99-019, and IM-CO-01-026. The results of the assessment are summarized in the table below. Copies of the cultural resource assessments are in the Field Office archaeology files.

Data developed here were taken from the cultural program project report files, site report files, and base maps kept at the Little Snake Field Office as well as from General Land Office (GLO) maps, BLM land patent records, An Overview of Prehistoric Cultural Resources Little Snake Resource Area, Northwestern Colorado, Bureau of Land Management Colorado, Cultural Resources Series, Number 20, and An Isolated Empire, A History of Northwestern Colorado, Bureau of Land Management Colorado, Cultural Resource Series, Number 2 and Appendix 21 of the Little Snake Resource Management Plan and Environmental Impact Statement, Draft February 1986, Bureau of Land Management, Craig, Colorado District, Little Snake Resource

Area.

The table below is based on the allotment specific analysis developed for the thirteen allotments in this EA. The table shows known cultural resources, eligible and need data, and those that are anticipated to be in each allotment.

Allotment Number	Acres Surveyed at a Class III Level	Acres NOT Surveyed at a Class III Level	Percent of Allotment Inventoried at a Class III Level	Eligible or Need Data Sites- Known in Allotment	Estimated Sites for the Allotment *(total number)	Estimated Eligible or Need Data Sites in the Allotment (number)
00014	38.5	4761.65	0.8%	1	127.5	38.2
04043	4.8	589.47	0.8%	0	15.7	4.7
04500	222.3	4545.39	4.6%	11	126.6	37.9
04501	70.3	4024.64	1.7%	4	108.7	32.6
04502	33.9	537.08	5.9%	2	15.1	4.5
04506	112.9	1533.52	6.8%	1	43.7	13.1
04508	154.3	4434.42	3.3%	1	121.8	36.5
04509	83.6	2310.21	3.4%	3	63.5	19.0
04510	28.1	1931.57	1.4%	0	52.0	15.6
04513	162.4	4112.87	3.7%	1	113.5	34.0
04518	537.7	8862.85	5.7%	12	249.7	74.9
04553	246.8	1972.74	11.1%	7	58.9	17.6
04578	812.0	11993.32	6.3%	14	340.1	102.0

(Note \*Estimates of site densities are based on known inventory data. Estimates should be accepted as minimum figures which may be revised upwards based on future inventory findings.)

Three cultural resource inventories were conducted within allotment #00014 resulting in the survey coverage of 38.5 acres at a Class III level. One cultural resource was discovered during inventory; a multi-component site that is listed as needs data for the National Register of Historic Places (NRHP). The GLO plats from 1914 indicate that there is potential for historic sites along a historic road and irrigation ditch through this allotment on BLM land.

In allotment #04043, one Class III cultural resource inventory was conducted covering 4.8 acres. No cultural resources were identified during inventory. The GLO plats from 1881 indicate that there is potential for historic sites because of a historic cabin in this allotment on BLM land.

Six cultural resource inventories were conducted within allotment #04500 resulting in the survey coverage of 222.3 acres at a Class III level. Twenty cultural resources were discovered during inventory; eight are prehistoric isolated finds, which are not eligible for the NRHP. Ten cultural resources are prehistoric sites, nine of which are listed as needs data and one is not eligible for the NRHP. There are two historic sites, one is a ditch complex that is not eligible and one is a historic cabin/line camp that is listed as needs data for the NRHP. There is also one paleontological site that is listed as needs data on the NRHP. The GLO plats from 1914 indicate that there is potential for historic sites along a historic road and

irrigation ditch through this allotment on BLM land.

In allotment #04501, eight Class III cultural resource inventories were conducted covering 70.3 acres. Four cultural resources were identified during inventory; two are prehistoric sites both listed as needs data, one paleontological site that needs data, and one is the historic State Highway 13, segments of which are listed as eligible for the NRHP. The GLO plats in 1914 indicate that there is potential for historic sites along a historic road and pipe line through this allotment on BLM land.

Three cultural resource inventories were conducted within allotment #04502, resulting in the survey coverage of 33.9 acres at a Class III level. Two cultural resources were discovered during inventory; one is a historic school which is eligible, and the other is the historic State Highway 13 segments of which is listed as eligible for the NRHP. The GLO plats indicated no known historic resources in this allotment.

In allotment #04506, six previous Class III cultural resource inventories have been conducted covering 112.9 acres. Seven cultural resources were identified during inventory; two were prehistoric and one historic isolated finds, all three are listed as not eligible for the NRHP. Three cultural resources were prehistoric sites, all listed as not eligible, and one was the historic State Highway 13, segments which is listed as eligible for the NRHP. The GLO patents from 1914 indicate there is potential for historic sites along a historic telephone line and the historic Baggs-Craig Road through this allotment on BLM land.

Nine cultural resource inventories were conducted within allotment #04508 resulting in the survey coverage of 154.3 acres at a Class III level. Six cultural resources were discovered during inventory; one is a prehistoric isolated find listed as not eligible, three were prehistoric sites listed as not eligible, one is a historic site listed as not eligible, and one is the historic State Highway 13, segments of which are listed as eligible for the NRHP. The GLO plats from 1882 and 1914 indicate that there is potential for historic sites along a historic telephone line and the historic Baggs-Craig Road through this allotment on BLM land.

In allotment #04509, four Class III cultural resource inventories were conducted covering 83.6 acres. Five cultural resources were identified during inventory; one is a historic isolated find listed as not eligible and one is historic ditch that is listed as not eligible for the NRHP. One site is a prehistoric site that is listed as eligible, one is a prehistoric Shoshone camp listed as eligible, and one is the historic State Highway 13, segments of which is listed as eligible for the NRHP. The GLO plats from 1914 indicate potential for historic sites along a historic road through this allotment on BLM land.

Two cultural resources inventories were conducted within allotment #04510 resulting in the survey coverage of 28.1 acres at a Class III level. No cultural resources were identified during inventory. The GLO patents from 1914 indicate that there is potential for historic sites along a historic road and irrigation ditch through this allotment on BLM land.

In allotment #04513, ten Class III cultural resource inventories were conducted covering 162.4 acres. Two cultural resources were identified during inventory; one is a prehistoric isolated find listed as not eligible and one is the historic State Highway 13 listed as eligible for the NRHP. The GLO patents from 1879 indicate there is potential for historic sites along historic roads on BLM and private land in this allotment. The 1914 GLO plats also indicate there is potential for historic sites along historic roads, irrigation ditches, and telephone lines on BLM land in this allotment.

Sixteen cultural resource inventories were conducted within allotment #04518, resulting in the survey coverage of 537.7 acres. Twenty cultural resources were discovered during inventory; two were prehistoric isolated finds and three were a historic isolated finds which are not eligible for the NRHP. Eleven sites were prehistoric sites, seven of which are eligible, two are listed as needs data and two are not eligible. There are two historic sites listed as eligible for the NRHP; one is the Thornburgh Wagon Road and one is a historic trash scatter. There is also one multi-component site listed as needs data for the NRHP. The GLO plats indicate that there are no known historic resources in this allotment.

In allotment #04553, twelve Class III cultural resource inventories were conducted covering 246.8 acres. Eleven cultural resources were discovered during inventory; two are prehistoric isolated finds that are not eligible, seven are prehistoric sites of which three are listed as needs data and four are listed as eligible for the NRHP. There is also one historic site listed as not eligible, and one site of unknown resource or eligibility for the NRHP. The GLO plats indicate there are no known historic resources in this allotment.

Twenty-seven cultural resource inventories were conducted within allotment #04578, resulting in the survey coverage of 812 acres. Twenty-five cultural resources were discovered during inventory. There are six prehistoric isolated finds and one historic isolated find, all of which are not eligible for the NRHP. In total there are 14 prehistoric sites, two are eligible, nine are needs data and three are not eligible for the NRHP. There are three historic sites, one is eligible, one is needs data, and one is not eligible for the NRHP. Last, there is one multi-component site that is eligible for the NRHP. The GLO plats from 1882 indicate there is potential for historic sites along historic roads on state lands in this allotment. The 1914 GLO plats indicate there is potential for historic sites along historic roads, a telephone line, a ditch, and the historic Baggs-Craig Road in this allotment on BLM, state, and private land.

Based on available data, a high potential for historic properties occurs in allotments #04500, #04518, #04553, and #04578. A low potential exists for historic properties in allotment #04043 and #04510. Subsequent cultural resource inventory will be conducted in areas where livestock concentrate. Subsequent field inventory is to be completed within the ten year term of the permit and lease.

Data Needs

Forty-seven recorded sites were determined eligible or needs data for the National Register of Historic Places and need to be revisited and mitigated if necessary. Some of these sites were reevaluated during permit renewal in 2000 and require a revisit, others have never been reevaluated (see table below).

<b>Site Number</b>	<b>Site Type</b>	<b>Eligibility</b>	<b>Requirements</b>
5MF.554	Prehistoric Open Camp	Needs Data	Never reevaluated, needs visit
5MF.555	Multicomponent	Eligible	Never reevaluated, needs visit
5MF.566	Prehistoric Open Camp	Needs Data	Never reevaluated, needs visit
5MF.1699	Historic School	Eligible	Never reevaluated, needs visit
5MF.1715*	Prehistoric Open Camp	Needs Data	Recommended mitigated in 2002, mitigation needed
5MF.2308	Historic Cabin/ Line Camp	Needs Data	Never reevaluated, needs visit
5MF.2437	Prehistoric Open Camp	Needs Data	Visited in 2000, recommended reevaluate in 2008, needs visit
5MF.2702	Prehistoric Open Camp	Needs Data	Visited in 2000, recommended reevaluate in 2008, needs visit
5MF.2773	Prehistoric Open Lithic	Needs Data	Visited in 2000, recommended reevaluate in 2008, needs visit
5MF.2774	Prehistoric Open Camp	Needs Data	Visited in 2000, recommended reevaluate in 2008, needs visit
5MF.2775	Prehistoric Kill Site	Needs Data	Never reevaluated, needs visit
5MF.2776	Prehistoric Open Camp	Needs Data	Never reevaluated, needs visit
5MF.2777	Prehistoric Open Camp	Needs Data	Never reevaluated, needs visit
5MF.2780	Prehistoric Open Camp	Needs Data	Visited in 2000, recommended reevaluate in 2005, needs visit
5MF.2781	Prehistoric Open Lithic	Needs Data	Visited in 2000, recommended reevaluate in 2008, needs visit
5MF.2782	Prehistoric Open Camp	Needs Data	Never reevaluated, needs visit

5MF.2788	Paleontological	Needs Data	Never reevaluated, needs visit
5MF.2809	Paleontological	Needs Data	Never reevaluated, needs visit
5MF.3059	Prehistoric Shoshone Camp	Eligible	Never reevaluated, needs visit

5MF.3744	Multicomponent	Needs Data	Never reevaluated, needs visit
5MF.3858*	Prehistoric Open Camp	Needs Data	Recommended mitigated in 2000, mitigation needed
5MF.3921	Prehistoric Open Camp	Needs Data	Visited in 2000, recommended reevaluate in 2005, needs visit
5MF.4100*	Prehistoric Open Camp	Eligible	Recommended mitigated in 2000, mitigation needed
5MF.4102	Prehistoric Open Camp	Needs Data	Never reevaluated, needs visit
5MF.4103	Prehistoric Open Camp	Needs Data	Visited in 2000, recommended reevaluate in 2008, needs visit
5MF.4104	Prehistoric Open Camp	Eligible	Never reevaluated, needs visit
5MF.4105	Prehistoric Open Camp	Needs Data	Never reevaluated, needs visit
5MF.4106	Prehistoric Open Camp	Needs Data	Visited in 2000, recommended reevaluate in 2002, needs visit
5MF.4108	Prehistoric Open Camp	Needs Data	Visited in 2000, recommended reevaluate in 2008, needs visit
5MF.4153	Prehistoric Open Camp	Eligible	Visited in 2000, recommended reevaluate in 2008, needs visit
5MF.4196	Prehistoric Open Camp	Eligible	Never reevaluated, needs visit
5MF.4197	Prehistoric Open Camp	Eligible	Visited in 2000, recommended reevaluate in 2008, needs visit
5MF.4198	Prehistoric Open Camp	Needs Data	Visited in 2000, recommended reevaluate in 2005, needs visit
5MF.5166	Prehistoric Open Camp	Needs Data	Never reevaluated, needs visit
5MF.5167	Prehistoric Open Camp	Needs Data	Never reevaluated, needs visit
5MF.5247	Prehistoric Open Camp	Eligible	Never reevaluated, needs visit
5MF.5248	Prehistoric Open Camp	Needs Data	Never reevaluated, needs visit
5MF.5253	Prehistoric Open Camp	Eligible	Never reevaluated, needs visit

5MF.5371	Prehistoric Open Camp	Eligible	Never reevaluated, needs visit
5MF.5372	Prehistoric Open Camp	Eligible	Never reevaluated, needs visit
5MF.5374	Historic Site	Needs Data	Never reevaluated, needs visit
5MF.5497	Multicomponent	Needs Data	Never reevaluated, needs visit
5MF.5980.1	Historic Irrigation Ditch	Needs Data	Never reevaluated, needs visit
5MF.6500	Prehistoric Open Camp	Eligible	Never reevaluated, needs visit
5MF.6502	Prehistoric Open Camp	Eligible	Never reevaluated, needs visit
5MF.6503	Prehistoric Open Camp	Eligible	Never reevaluated, needs visit
5MF.6504	Historic Trash Scatter	Eligible	Never reevaluated, needs visit

\*Indicates site with required mitigation

- A Class III inventory is needed in allotment #00014 around two ponds (one 1.1 acres, one 1.2 acres) totaling 2.3 acres.
- A Class III inventory is needed in allotment #04043 to relocate and record a historic cabin (43.2 acres), and two ponds (each 0.7 acres) totaling 44.6 acres.
- A Class III inventory is needed in allotment #04500 around one pond of 0.4 acres and one pond area of 11.8 acres.
- In allotment #04501, a Class III inventory is needed around the drill well and its access road.
- In allotment #04506, a Class III inventory is needed for any ground disturbing activities related to the construction of a crossing structure over the channel of Fortification Creek.
- In allotment #04508, a Class III inventory is needed for the construction of the pasture fence and also for each of the small pit reservoirs and their access routes.
- A Class III inventory is needed in allotment #04508 around two ponds totaling 1.2 acres.

- A Class III inventory is needed in allotment #04510 around a historic reservoir totaling 7 acres.
- In allotment #04513 and #04553, a Class II sample survey of the 500 acre cactus treatment is needed post-treatment.
- In allotment #04518, a Class III inventory is needed before the construction of the three livestock ponds.
- A class III inventory is needed in allotment \$04518 around one pond are total of 3.5 acres.
- A Class III inventory is needed around the historic well in allotment #04518 before the enclosure, solar pump, and piping is installed.
- In allotment #04578, a Class III inventory is needed for the realignment of the existing pasture fence.

If historic properties are located during the subsequent field inventory, and BLM determines that grazing activities will adversely impact the properties, mitigation will be identified and implemented in consultation with the Colorado SHPO.

Environmental Consequences, Both Alternatives: The direct impacts that occur where livestock concentrate, during normal livestock grazing activity, include trampling, chiseling, and churning of site soils, cultural features, and cultural artifacts, artifact breakage, and impacts from standing, leaning, and rubbing against historic structures, above-ground cultural features, and rock art. Indirect impacts include soil erosion, gullyng, and increased potential for unlawful collection and vandalism. Continued livestock use in these concentration areas may cause substantial ground disturbance and cause irreversible adverse effects to historic properties.

Timing for livestock use is split between summer and fall with short periods for each, lessening the potential impacts to cultural resources as opposed to long term sustained use. There can be potential impacts to cultural resources around water sources where livestock concentrate, shepherders camp, and near historic buildings.

The following sites have known adverse effects and mitigation is required (Collins et. al 2002; Keesling et. al 2000). It is proposed that:

- Site 5MF.1715 has one hearth currently being impacted by a cattle trail cutting through it. Mitigation of the site was recommended in 2000 when the site was reevaluated, mitigation has not been completed.

- Site 5MF.3858 has two hearths currently being impacted by a cattle trail cutting through it. Mitigation of the site was recommended in 2000 when the site was reevaluated, mitigation has not been completed.
- Site 5MF.4100 has one hearth and one charcoal stain currently being impacted by a cattle trail cutting through it. Mitigation of the site was recommended in 2000 when the site was reevaluated, mitigation has not been completed.

These sites must be revisited to determine if any mitigation is still applicable. After site revisits, proposed mitigations need to be determined in consultation with the State Historic Preservation Office. Mitigation must be complete by FY2013.

Standard Stipulations for cultural resources are included in Standard and Common Terms and Conditions (Attachment 1).

Name of specialists and date: Robyn Watkins Morris and Erin M. Parks, 01/29/10.

## **ENVIRONMENTAL JUSTICE**

Affected Environment: The allotments are located in areas of isolated dwellings. Oil and gas development and ranching are the primary economic activities.

Environmental Consequences, Both Alternatives: The planning area is relatively isolated from population centers, so no populations would be affected by physical or socioeconomic impacts of either alternative. Neither alternative would affect the social, cultural or economic well-being and health of Native American, minority or low-income populations.

Mitigative Measures: None.

Name of specialist and date: Barb Blackstun, 01/22/10.

## **FLOOD PLAINS**

Affected Environment: There are floodplains existing within the Scandinavia, North Pole Gulch, West Four Mile, Chicken Sage, West Mud Springs Draw, and Lower Fortification allotments, as these allotments contain portions of perennial streams or major ephemeral drainages. There may be smaller flood plain areas in other allotments as well.

Environmental Consequences, Both Alternatives: There would be no adverse impacts or threats to human health, safety, or property with implementation of either alternative.

Name of specialist and date: Mark Lowrey, 12/29/09.

## **INVASIVE, NONNATIVE SPECIES**

Affected Environment: Invasive and noxious weeds occur within the planning area. Cheatgrass and allysum are both found within the allotments. These are annual invasive species which spread into disturbed or stressed areas. Additional invasive species of concern in the vicinity include white top, leafy spurge, Canada thistle, scotch thistle, and other biennial thistles. These species are less likely to establish in undisturbed upland sites. Weed infestations can occur from vehicles, animals, or wind carrying seed in from other areas. The BLM is in cooperation with Moffat County's Cooperative Weed Management program to control noxious weeds on public lands. Principals of Integrated Pest Management are employed to control noxious weeds on public lands. Some weed infestations within the area are being treated with chemical applications.

Environmental Consequences, Both Alternatives: The impact of invasive or noxious weed establishment is very similar under either alternative. Vehicular access to public lands for dispersed recreation, hunting, grazing operations, livestock and wildlife movement, as well as wind and water, can cause weeds to spread into new areas. Surface disturbance from livestock concentration and human activities associated with grazing operations can also increase weed presence. The largest concern in the planning area would be for biennial and perennial noxious weeds to establish and not be detected. Once an infestation is detected it could be controlled with various Integrated Weed Management techniques. Land practices and land uses by the livestock operator and their weed control efforts, and awareness, would help in the identification and potential occurrence of weeds within the planning area.

Environmental Consequences, Proposed Action: Proposed projects included in this alternative provide a disturbance opportunity for invasive species to establish. Awareness of pre-construction weed species presence as well as post construction monitoring of weed species would assist in treatment of potential infestations associated with the proposed projects.

Mitigative Measures: None.

Name of specialist and date: Christina Rhyne, 01/25/10.

## **MIGRATORY BIRDS**

Affected Environment: The LSFO is located within two Bird Conservation Regions (Northern Rockies and Southern Rockies/Colorado Plateau). Several species on the USFWS's Birds of Conservation Concern (BCC) list for these regions occupy habitats within the LSFO.

Specific to the planning area, sagebrush stands, mixed mountain shrublands, pinyon-juniper woodlands and riparian areas provide habitat for a variety of migratory bird species. Limited

conifer and aspen woodlands are also present in a few of the allotments at higher elevations. Priority species on the USFWS Birds of Conservation Concern List (2008) that may utilize habitat within the planning area include: bald eagle, ferruginous hawk, golden eagle, flammulated owl, pinyon jay, juniper titmouse, Brewer's sparrow, sage sparrow, sage thrasher, loggerhead shrike, veery, Williamson's sapsucker and Cassin's finch. Ecosystems within the planning area provide important habitat for many other bird species. Aspen woodlands and coniferous forests provide nesting sites for cavity nesting species. Several nest sites for golden eagles, ferruginous hawks and red-tailed hawks are present in the general area.

Environmental Consequences, Proposed Action: While livestock grazing can directly impact reproductive success of migratory songbirds by trampling of nests, it is more likely that it indirectly impacts bird species due to changes in vegetation such as species composition, height or cover. The grazing system described in the Proposed Action would incorporate rest, deferment and rotation, allowing for ample growing season rest and adequate plant recovery periods. This alternative would maintain and enhance migratory bird habitat.

Grazing would coincide with migratory bird nesting on several allotments. Grazing has the potential to reduce the amount of herbaceous cover available for nest concealment. Herbaceous cover is an important component for several ground nesting species. The grazing system described in the Proposed Action would prevent over-utilization in any given area and should ensure residual grass cover is available for nesting. Overall, the Proposed Action would be compatible with maintaining local migratory bird populations.

#### Range Improvement Projects:

Vegetation treatments: In the Scandinavia Allotment, 1,000 acres of cheatgrass would be treated with imazapic and then seeded with native grasses. Based on available data, imazapic has low toxicity to birds (BLM 2007) and would have little impact to any birds using the target area. Since the treatment would be performed after the nesting season (May 15 – July 15) there would be little chance to disturb breeding or nesting activities. Individual birds would likely be displaced from the area during project implementation due to noise from the plane, but this disturbance would be minimal and short in duration. The treatment of cheatgrass would help to improve upland habitats as this annual weed is replaced with native grasses and forbs. This would help restore habitat for migratory birds.

In the North Pole Gulch and West Four Mile Allotments, 1,000 total acres of prickly pear cactus would be treated with picloram. Picloram has a low toxicity to birds when applied at the typical application rate (BLM 2007) and would have little direct impact to birds using the target area. Applying picloram to the dense stands of prickly-pear cactus would result in beneficial impacts to desirable perennial grass species by reducing competition with prickly-pear. The chemical would be applied at a rate to impact broad leaf species but not woody shrubs. The herbicide could come into contact with and impact non-target plants, primarily native forbs and may reduce forb cover in the treatment area. These two treatments are planned to be conducted during the nesting season (April 15 – July 15th), migratory birds nesting in the area may be temporarily disturbed or displaced, but this disturbance would be short in duration. The

treatment of prickly pear would help to improve upland habitats as this invasive cactus is replaced with native grasses and forbs.

Water developments: The proposed ponds and wells would have minimal impacts to migratory birds. Nesting attempts may be disrupted and some nests may be accidentally destroyed if the ponds are constructed during the breeding season (May – July). As this would impact approximately .5 acres per pond, potential for impacts would remain low. Once construction of the water developments is complete, there would be no further potential to interfere materially with nest substrate. Additional water sources would increase livestock distribution and likely improve upland and riparian vegetation conditions, in turn, improving migratory bird habitat. Habitat in the immediate vicinity of the ponds would be degraded by livestock congregation; however, this would not affect the productivity of the surrounding habitat.

Fencing: Realigning existing fences would have minimal impacts to migratory bird species or their habitat.

Environmental Consequences, No Action Alternative: Under the current grazing system, most of the allotments were found to be meeting all land health standards and providing suitable habitat for a variety of migratory bird species. Habitat conditions would be expected to remain unchanged under this alternative. Vegetation treatments in the Proposed Action would improve habitat conditions in allotments that were not meeting standards. These treatments would not occur under the No Action Alternative and habitat would not be improved.

Name of specialist and date: Desa Ausmus, 01/29/10.

Reference: *BLM Vegetation Treatments Using Herbicides, Final Programmatic EIS, June 2007.*

## **NATIVE AMERICAN RELIGIOUS CONCERNS**

A letter was sent to the Eastern Shoshone, Uinta and Ouray Tribal Council, Southern Ute Tribal Council, Ute Mountain Ute Tribal Council on May 26, 2009. The letter listed the FY2010 projects that the BLM would notify them on and projects that would not require notification. A followup phone call was performed on July 26, 2009. No comments were received (Letter on file at the Little Snake Field Office). This project requires no additional notification. In addition, an email was sent to Eastern Shoshone, Uinta and Ouray Tribal Council, Southern Ute Tribal Council, Ute Mountain Ute Tribal Council about the Round Mountain/West Black Mountain allotments. The Southern Ute responded on February 25, 2010 that they deferred to the Northern Ute. The Northern Ute were contacted by phone March 18, 2010 and had no comment.

Name of specialist and date: Robyn Watkins Morris, 01/29/10.

## **PRIME & UNIQUE FARMLANDS**

Affected Environment: The following soil mapping units that occur in allotments listed under the Proposed Action and No Action Alternative conditionally qualify as prime farmland.

10-Battlement fine sandy loam, 0 to 3 percent slopes: 969 acres, prime farmland if irrigated.

11-Battlement silt loam, saline, 0 to 3 percent slopes: 272 acres, prime farmland if irrigated and reclaimed of excess salts and sodium.

223-Youngston loam, well drained, 0 to 3 percent slopes: 205 acres, prime farmland if irrigated

Environmental Consequences, Both Alternatives: There would be no adverse impacts as none of these soils are irrigated on public lands within the allotments listed in either alternative.

Name of specialist and date: Mark Lowrey, 12/29/09.

## **T&E AND SENSITIVE ANIMALS**

Affected Environment: According to the latest species list from the U. S. Fish and Wildlife Service, the following federally listed and candidate species may reside, have habitat and/or be impacted by actions occurring in Moffat County: Canada lynx, black-footed ferret, western yellow-billed cuckoo, Mexican spotted owl, razorback sucker, Colorado pikeminnow, bonytail chub, humpback chub, and greater sage-grouse.

Five of the above listed species have habitat on one or more affected allotments or have habitat downstream of the planning area. Critical habitat for the razorback sucker, Colorado pikeminnow, bonytail chub, humpback chub occurs downstream from the planning area.

The Round Mountain Allotment provides habitat for the federally threatened Canada lynx. Lynx habitat on public lands totals 234 acres with 25 acres of winter/denning habitat and 209 acres of other (low quality or summer) habitat. Habitat is comprised primarily of aspen woodlands with a small amount of spruce/fir. This habitat is located in the combined BLM/FS Bears Ears Lynx Analysis Unit (LAU). This LAU is 102,204 acres in size.

The W. Four Mile allotment provides winter habitat for the bald eagle, a recently delisted, and BLM sensitive species. Bald eagles winter along major waterways and their tributaries within the LSFO, using adjacent upland habitat as scavenging areas primarily for winter or vehicle killed mule deer and elk. Mapped winter habitat for bald eagles is located along Four Mile Creek, with large cottonwood trees providing roosting sites for this species.

The planning area provide important habitat for greater sage-grouse and Columbian sharp-

tailed grouse. The area is on the western fringe of sharp-tailed habitat, but sagebrush and mixed mountain shrublands in the allotments still provide nesting and winter habitat for this species. Two sharp-tailed leks are located on BLM lands within the grazing plan area. Sagebrush stands within all allotments provide habitat for greater sage-grouse. Five greater sage-grouse leks are located on BLM lands and the majority of the allotments provide nesting habitat for this species. Two riparian areas, Mud Spring Draw and Timberlake Creek are utilized for brood-rearing. Winter habitat is located in the northern planning area. A project to improve greater sage-grouse habitat was completed in the Scandinavia Allotment in 2006/2007. This project consisted of removing encroaching pinyon and juniper trees and returning the area to a sagebrush-dominated ecosystem.

Environmental Consequences, Proposed Action: *Big River Fish*

Livestock grazing and the proposed fences and vegetation treatments would have “No Effect” to razorback sucker, Colorado pikeminnow, bonytail chub or humpback chub. Impacts to these fish would be from small water depletions cause by water developments.

In July 2008, BLM prepared a Programmatic Biological Assessment (PBA) that addresses water depleting activities in the Colorado River Basin. In response to BLM’s PBA, the FWS issued a Programmatic Biological Opinion (PBO)(#ES/GJ-6-CO-08-F-0010) on February 25, 2009, which determined that water depletions from the Colorado River Basin resulting from BLM actions described in the PBO are not likely to jeopardize the continued existence of the Colorado pikeminnow, humpback chub, bonytail, and razorback sucker or result in the destruction or adverse modification of their critical habitat. The PBO addresses internal and external BLM projects including impoundments, diversions, water wells, pipelines and spring developments. The FWS determined that projects that fit under the umbrella of the PBA would avoid the likelihood of jeopardy and/or adverse modification of critical habitat for depletion impacts to the Upper Colorado River Basin if they deplete relatively small amounts of water (less than 100 AF) and BLM makes a one-time contribution to the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (Recovery Program) in the amount equal to the average annual acre-feet depleted by each project. The PBO instructed BLM to make an annual payment to the National Fish and Wildlife Foundation (NFWF) to cover all BLM authorized actions that result in water depletions.

The water projects addressed in this EA will be entered into the LSFO’s water depletion log which will be submitted to the Colorado State Office (CSO) at the end of the fiscal year. The CSO is responsible for paying depletion fees based on the annual statewide total.

*Canada lynx*

The Proposed Action would not result in direct mortality of individual lynx and any effects to lynx would be the result of changes in ecosystem structure. Direct impacts associated with administration of grazing on lynx are minimal and unlikely.

Indirect impacts associated with grazing are mainly associated with competition between livestock and potential lynx prey species for available forage. The Lynx Conservation Assessment and Strategy (LCAS) identified that “grazing, in conjunction with increasing elk populations, may have resulted in increased competition for forage resources with lynx prey”. In summary, livestock compete with lynx prey species (snowshoe hare, jack rabbits, cottontails, blue grouse, voles, squirrels) for available forage. In addition, livestock can remove cover important to the survival of prey species, which could ultimately result in lower prey species productivity.

A formal Land Health Assessment (Fourmile Creek Watershed Assessment) has been completed for this allotment. Vegetation was found to have high vigor and productivity. Shrub species were in good condition, allowing for hiding places for lynx prey. The allotment was meeting Standard 4 and current grazing management is not degrading lynx habitat.

The grazing system in the Proposed Action would allow for sufficient growing season rest, adequate plant recovery periods and ample opportunities for seed production, dissemination and seedling establishment and would have minimal impacts to Canada lynx and its habitat. The renewal of the Round Mountain Allotment lease “May Affect, But Is Not Likely To Adversely Affect” the threatened Canada lynx. Furthermore, the Proposed Action would not result in the destruction or adverse modification of Fish & Wildlife Service designated critical habitat. The US Fish and Wildlife Service concurred with this finding (Letter MS 65412 GJ).

#### *Bald Eagle*

The Proposed Action would have no impact to wintering bald eagles. Grazing in the allotments would not coincide with bald eagle use of winter habitat. Grazing upland habitats adjacent to the creeks would not impact bald eagle’s ability to use these waterways and would not impact prey availability. In addition, livestock grazing would not impact bald eagle’s ability to feed on carrion in upland habitats within the allotment.

The proposed range improvement projects would not impact bald eagle or their habitat.

#### *Greater sage-grouse and Columbian sharp-tailed grouse*

Livestock grazing can influence grouse indirectly by altering habitat components such as species composition, height or cover. The grazing system in the Proposed Action would allow for ample growing season rest and adequate plant recovery periods.

Grazing would coincide with grouse nesting on several allotments. Grazing has the potential to reduce the amount of herbaceous cover available for nest concealment. The proposed grazing system would prevent excessive utilization in any given area and would ensure residual grass is available for nesting grouse. The vegetative community is in good condition and provides suitable and productive habitat for both grouse species. These conditions are expected to continue under the grazing system described in the Proposed Action. Overall, the Proposed Action would be compatible with maintaining suitable and productive habitat for

greater sage-grouse and Columbian sharp-tailed grouse.

#### Range Improvement Projects:

Vegetation treatments: In the Scandinavia Allotment, 1,000 acres of cheatgrass would be treated with imazapic and then seeded with native grasses. This treatment is located in greater sage-grouse nesting and winter habitat. Based on available data, imazapic appears to have low toxicity to birds (BLM 2007) and would have little impact to any grouse using the target area. Chemical spraying would occur during the fall and would not interfere with nesting or winter habitat use. Seeding would occur during the winter or spring and may temporarily displace individual grouse due to noise from the plane. This disturbance would be short in duration and only minimal disruption would be expected. The three leks in the vicinity of the treatment are far enough away that seeding would not be expected to disrupt lekking behavior. The treatment of cheatgrass would help to improve upland habitats as this annual weed is replaced with native grasses and forbs. There is a minor risk of inhibiting the germination of some native species in the treatment area, but overall, the treatment would improve greater sage-grouse habitat.

In the North Pole Gulch and West Four Mile Allotments, 1,000 total acres of prickly pear cactus would be treated with picloram. These two treatments are located in sage-grouse winter and nesting habitat. Picloram has a low toxicity to birds when applied at the typical application rate (BLM 2007) and would have little direct impact to grouse using the target area. Applying picloram to the dense stands of prickly-pear cactus would result in beneficial impacts to desirable perennial grass species by reducing competition with prickly-pear. The chemical would be applied at a rate to impact broad leaf species but not woody shrubs. The herbicide could come into contact with and impact non-target plants, primarily native forbs and may reduce forb cover in the treatment area. This may have some impacts to sage-grouse in the first few years following the treatment. Grouse may be temporarily disturbed or displaced during implementation, but this disturbance would be short in duration. The treatment of prickly pear would help to improve upland habitats as this invasive cactus is replaced with native grasses and forbs.

Water developments: The proposed ponds and wells would have minimal impacts to grouse species. Nesting attempts may be disrupted and some nests may be accidentally destroyed if the ponds are constructed during the breeding season. Most of the water developments are located in sage-grouse or sharp-tailed grouse habitat and should not be constructed from March 1 to June 30 to prevent disruption of nesting and breeding activities. Once construction of the water developments is complete, there would be no further potential to interfere materially with nest substrate. Additional water sources would likely improve upland and riparian vegetation conditions by evenly distributing grazing throughout the allotment, in turn, improving grouse habitat. Habitat in the immediate vicinity of the ponds would be degraded by livestock congregation, however, this would not affect the productivity of the surrounding habitat.

The realignment of the State Block EU and the Chicken Sage fences would be beneficial to greater sage-grouse as the new fences would be farther away from active leks. This would reduce mortalities associated with grouse/fence collisions.

Fortification Creek Crossing: The creek crossing would have little to no impact on greater sage-grouse or Columbian sharp-tailed grouse.

Environmental Consequences, No Action Alternative: Under the current grazing system, most of the allotments are providing suitable habitat for T&E and BLM sensitive species. Habitat conditions would be expected to remain unchanged under this alternative. Vegetation treatments in the Proposed Action would help improve habitat conditions in allotments that were not meeting standards. These treatments would not occur under the No Action Alternative and habitat would not be improved.

Name of specialist and date: Desa Ausmus, 02/02/10.

Reference: *BLM Vegetation Treatments Using Herbicides, Final Programmatic EIS, June 2007.*

*Ruediger, Bill, Jim Claar, Steve Gniadek, et.al. 2000. Canada Lynx Conservation Assessment and Strategy. USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, and USDI National Park Service. Forest Service Publication # R1-00-53, Missoula, MT. 142 pp.*

## **T&E AND SENSITIVE PLANTS**

Affected Environment: There are no federally listed threatened or endangered or BLM sensitive plant species present on any of these allotments.

Environmental Consequences, Both Alternatives: None.

Mitigative Measures: None.

Name of specialist and date: Hunter Seim, 01/20/10.

## **WASTES, HAZARDOUS OR SOLID**

Affected Environment: There are no hazardous materials present on any allotments listed in the Proposed Action and No Action Alternative.

Environmental Consequences, Both Alternatives: Potential releases of hazardous

materials could occur due to vehicular access for livestock management operations. Coolant, oil, and fuel are materials that could potentially be released. Due to the limited amount of vehicular activity that would be required, the potential for releases of any of these materials is low and if a release were to occur, it would be minimal and highly localized and not result in an adverse impact to any allotment.

Mitigative Measures: None.

Name of specialist and date: Mark Lowrey, 12/29/09.

## **WATER QUALITY – GROUND**

Affected Environment: There are three surface formations present in the planning area - Wasatch, Tipton Tongue and Quaternary Alluvium. Potable waters are potentially contained in the formations. The surface soils are derived from shales and sandstones, with slow to moderate permeability. The depths to fresh water in wells within the planning area range from 200 to 600 feet.

Environmental Consequences, Proposed Action: The movement of Outpost (active ingredient - Picloram) is generally restricted to the upper two to four feet of the soil. This restricted movement is due to the chemical's ability to adhere to organic matter and clay particles. However, in sandy soils low in organic matter, further downward movement can occur. The use of Plateau (active ingredient - Imazapic) in areas where soils are permeable, particularly where the water table is high, may result in ground water contamination. As stated above, the depths to fresh water in wells within the planning area range from 200 to 600 feet. Due to the remoteness of the treatment areas, and the treatments being common vegetation management practices with little known adverse affects in the history of these practices. There would be no adverse affect.

Neither the construction of the proposed range improvements nor the continuation of livestock grazing would have adverse affects on ground water quality.

Environmental Consequences, No Action: Continuation of livestock grazing would have no affect on ground water quality.

Mitigative measures: None.

Name of specialist and date: Marty O'Mara, 01/29/10.

## **WATER QUALITY - SURFACE**

Affected Environment: All allotments contain riparian zones and/or wetlands and springs, though not all of these waterbodies have been given use classifications or water quality-based designations by the Colorado Department of Public Health and Environment Water Quality Control Commission. The following allotments have one or more reaches of water that

has use classifications and/or designations.

No segments are listed by the Commission as impaired or appear on the Monitoring and Evaluation list.

Allotment #	Allotment Name	Water Quality
00014 04501 04502	Round Mountain Fortification Rock Little Fortification	Allotment contains one or more unnamed tributaries to the mainstem of Fortification Creek. All tributaries to Fortification Creek must support Aquatic Life Warm 2, Recreation P, and Agriculture. These waters are use protected.
04043	W. Black Mountain	Allotment contains a tributary to the North Fork of Fortification Creek. The North and South forks of Fortification Creek, including all tributaries, from their sources to the confluence must support Aquatic Life Cold 1, Recreation P, Water Supply, and Agriculture.
04506	Lower Fortification	Allotment contains mainstem sections of Fortification Creek which must support Aquatic Life Warm 1, Recreation E, and Agriculture.  Allotment also contains an unnamed tributary to the mainstem of Fortification Creek. All tributaries to Fortification Creek must support Aquatic Life Warm 2, Recreation P, and Agriculture. These waters are use protected.

Reference: *Colorado Department of Public Health and Environment Water Quality Control Commission. 2008. Regulations #33, 93 and 94.*

<http://www.cdphe.state.co.us/regulations/wqccregs/index.html>

Environmental Consequences, Both Alternatives: There are no existing or suspected water quality issues on any of the allotments and all segments are currently supporting use classifications. The nature of the Proposed Action (short duration, high intensity grazing as sheep are moved through allotments) would not compromise existing water quality standards in the short or long term.

Aerial application of herbicide for noxious weed treatments would follow label recommendations for use near surface waters. Although not registered for aquatic uses, imazapic is moderately persistent in soils and is not likely to move from soils with surface water.

Picloram is capable of moving into local waterways through surface and sub-surface runoff, the

extent to which depends on type of soil, application rate, post-application rainfall, and distance of application from a water body. All applications of herbicides will conform to manufactures label specifications, BLM regulations, and state laws. There would be no adverse affects.

Mitigative Measures: None.

Name of specialist and date: Emily Spencer, 01/28/10.

Reference: *Tu, M., Hurd, C. & J.M. Randall. 2001. Weed Control Methods Handbook, The Nature Conservancy, <http://www.invasive.org/gist/handbook.html>, version: April 2001.*

## **WETLANDS/RIPARIAN ZONES**

**Affected Environment:** There are approximately 29 miles of streams, 40 acres of wetlands, and 24 springs identified on BLM land within the planning area. With the one exception referred to below, of the water bodies that have been monitored, there are no riparian resource concerns caused by current grazing management on any allotments listed in the Proposed Action. Many of the wetlands and springs within the allotments were surveyed in 1999/2000 and were given a Proper Functioning Condition (PFC) rating or Functioning-At-Risk (FAR) with no trend. Overall, current grazing management was not cited as a contributing factor in condition assessments. Of the riparian and wetland areas surveyed more recently (2003, 2009), the majority of sites previously rated as FAR show an improvement in condition rating. In 2003, a spring was rated as FAR with a downward trend (spring 013-12 in the State Block EU Allotment #04578), possibly attributable to heavy grazing.

**Environmental Consequences, Proposed Action:** The proposed grazing plan provides for a rest, deferred, rotational grazing system which is the best alternative for enhancing and maintaining riparian system functionality. The plan also provides for water development projects to improve livestock distribution and reduce any pressure on existing natural water sources within the allotments.

**Environmental Consequences, No Action Alternative:** Use of natural water sources by livestock under the previously authorized grazing plan would continue. Although not adversely affected, under the No Action Alternative native riparian system function has less potential for restoration, enhancement, and maintenance.

Name of specialist and date: Emily Spencer, 02/01/10.

## **WILD & SCENIC RIVERS**

**Affected Environment:** Not present.

**Environmental Consequences:** None.

Mitigative Measures: None.

Name of specialist and date: Kimberly Miller, 01/19/10.

**WILDERNESS, WSAs**

Affected Environment: Not present.

Environmental Consequences: None.

Mitigative Measures: None.

Name of specialist and date: Kimberly Miller, 01/19/10.

**NON-CRITICAL ELEMENTS**

**SOILS**

Affected Environment: In all allotments listed in the Proposed Action and No Action Alternative, there are 29 different soils mapping units covering a vast variety of soil types, compositions, and properties. All soil mapping units with areas over 200 acres are listed in the table below with acreages and associated ecological sites names. Detailed information on soil mapping units and ecological sites may be found in the United State Department of Agriculture, Natural Resource Conservation Service publication Soil Survey of Moffat County Area, Colorado (CO686).

<b>Soil Mapping Units/Acres/Ecological Site</b>			
10-Battlement fine sandy loam, 0 to 3 percent slopes: 969 acres - Foothill Swale	11-Battlement silt loam, Saline, 0 to 3 percent slopes: 272 acres - Salt Meadow	15-Berlake-Taffom-Gretdivid complex, 10 to 20 percent slopes: 948 acres - Deep Loam, Rolling Loam, Sandy Land	19-Borollic Natrargids-Borollic Haplargids-Ustic Torrifluvents complex, 0 to 20 percent slopes: 280 acres – N/A
77-Forelle loam, 3 to 12 percent slopes: 821 acres - Rolling Loam	78-Forelle loam, 12 to 25 percent slopes: 478 acres - Rolling Loam	81-Forelle-Obadia complex, 1 to 8 percent slopes: 1,738 acres - Rolling Loam, Deep Loam	82-Forelle-Pinelli-Maysprings complex, 5 to 20 percent slopes: 673 acres - Rolling Loam, Clayey Foothills, Sandyland
128-Maybell sand, 3 to 12 percent slopes: 1,160 acres - Sandhills	130-Maysprings coarse sandy loam, 3 to 12 percent slopes: 1,428 acres - Rolling Loam	131-Maysprings-Gretdivid loamy coarse sands, 10 to 20 percent slopes: 681 acres - Sandyland	132-Milren fine sandy loam, 0 to 10 percent slopes: 1,173 acres - Claypan
149-Pinelli loam, 3 to 12 percent slopes: 671 acres - Clayey Foothills	154-Quealman sand, 0 to 3 percent slopes: 205 acres - Sandy Swale	162-Rock River sandy loam, 3 to 12 percent slopes: 1,219 acres - Rolling Loam	163-Rock River sandy loam, 12 to 25 percent slopes: 277 acres - Rolling Loam



173-Ryark-Powderwash complex, 2 to 15 percent slopes: 2,949 acres - Loamy 7-10" Ppt, Shale	174-Ryark-Maybell complex, 1 to 12 percent slopes: 4,532 acres - Rolling Loam, Sandhills	178-Simanni-Ruedloff complex, 1 to 10 percent slopes: 1,631 acres - Sandy, Sandy 9-11" Ppt	181-Stunner sandy loam, 1 to 8 percent slopes: 594 acres - Rolling Loam
184-Styers-Pinelli-Taffom complex, 10 to 25 percent slopes: 7,831 acres - Claypan, Clayey Foothills, Rolling Loam	195-Torriorthents, 12 to 25 percent slopes: 247 acres - N/A	197-Torriorthents-Rock outcrop, Sandstone complex, 25 to 75 percent slopes: 767 acres - N/A	198-Torriorthents-Rock outcrop, Shale complex, 30 to 75 percent slopes: 514 acres - N/A
199-Torriorthents-Torripsamments complex, 12 to 40 percent slopes: 3,747 acres - N/A	200-Tresano sandy loam, 3 to 12 percent slopes: 584 acres - Loamy 7-10" Ppt	201-Tresano-Hiatha-Kandaly association, 2 to 20 percent slopes: 235 acres - Clayey 9-11" Ppt, Alkali Upland, Dry Sandy	204-Typic Natrargids, 0 to 5 percent slopes: 446 acres - N/A
223-Youngston loam, Well Drained, 0 to 3 percent slopes: 205 acres - Foothill Swale			

Environmental Consequences, Proposed Action: There would be no adverse affect. Soil disturbance associated with livestock grazing would continue. There are no soil resource concerns on any allotments listed in the Proposed Action. The terms and conditions in the proposed grazing plan provides for soil resource protection and maintenance.

Environmental Consequences, No Action Alternative: There would be no adverse affect. Soil disturbance associated with previously authorized livestock grazing would continue. There are no soil resource concerns on any allotments listed in the proposed action.

Name of specialist and date: Mark Lowrey, 12/29/09.

## UPLAND VEGETATION

Affected Environment: The majority of vegetation types in all allotments of the planning area are Wyoming big sagebrush, mountain big sagebrush, and basin big sagebrush. Other vegetation types that occur as minor plant communities include silver sagebrush/grassland, which occurs in riparian habitat along streams above the wet sedge and willow riparian zone, juniper/sagebrush, juniper/pinyon pine/sagebrush, and mountain shrub/aspen woodland vegetation types found at higher elevations where precipitation is more abundant.

*Wyoming Big Sagebrush/Grassland:* The Wyoming big sagebrush/grassland is the most common vegetation cover type in the allotments within the planning area. It occurs in shallow to moderately deep coarse soil types at lower elevations between 6,000 and 7,500 feet. Grass and forb species vary depending on soil texture, aspect, and slope. Common grass and grass-like species include bluebunch and thick spike wheatgrass, Sandberg and mutton bluegrass, Indian ricegrass, needle-and-thread, threadleaf sedge, and bottlebrush squirreltail. Common forbs include phlox, Hooker sandwort, buckwheat, penstemon, Indian paintbrush, globemallow, and prickly pear cactus.

*Basin Big Sagebrush:* Basin big sagebrush can intermix with serviceberry, green and rubber rabbitbrush, snowberry, bitterbrush, silver sagebrush, and mountain mahogany, depending on the soil depth, annual precipitation, and elevation. Grasses occurring in these communities include basin wildrye, green needlegrass, Idaho fescue, thick spike wheatgrass, Kentucky and mutton bluegrass, and bottlebrush squirreltail. Common forbs include bluebells, groundsel, wild onion, violet, buttercup, false dandelion, buckwheat, penstemon, Indian paintbrush, globemallow, and prickly pear cactus.

*Mountain Big Sagebrush/Grassland:* Mountain big sagebrush is usually the dominant shrub in foothill and higher elevation sagebrush communities, with bitterbrush, serviceberry, snowberry, and mountain mahogany providing subdominant brush diversity. Grasses include Idaho fescue, spike fescue, green and Colombian needle grass, Kentucky, mutton and big bluegrass, elk sedge, and Ross's sedge. Common forbs found in these areas include Indian paintbrush, globemallow, lupine, larkspur, penstemon, and Oregon grape.

Environmental Consequences, Proposed Action: The areas of vegetative resource concerns are being addressed in the areas of proposed vegetation treatments. There are no other vegetation resource concerns and the proposed and previously authorized livestock grazing has not been attributed to vegetation degradation. The Proposed Action provides for vegetation treatments in areas that are not at desired plant community levels, and a rest, deferred, rotational grazing system which is the best alternative for restoring, enhancing, and maintaining native vegetation.

Environmental Consequences, No Action Alternative: Although not adversely affected, under the No Action Alternative native vegetation has less potential for restoration, enhancement, and maintenance. No treatments to improve vegetation resources would occur.

Name of specialist and date: Mark Lowrey, 12/29/09.

## **WILDLIFE, AQUATIC**

Affected Environment: Streams, springs, and ponds and the associated riparian vegetation provide potential habitat for small amphibians and other aquatic wildlife. Fourmile and Fortification Creeks both provide potential habitat for native fish.

Environmental Consequences, Proposed Action: The grazing system described in the Proposed Action would incorporate rest, deferment and rotation, allowing for ample growing season rest and adequate plant recovery periods. This would prevent riparian degradation and minimize any potential impacts to aquatic wildlife. Riparian habitats are in good condition, providing suitable and productive habitat for aquatic wildlife. These conditions are expected to continue under the grazing system described in the Proposed Action.

Vegetation treatments would have minimal impacts to aquatic wildlife and riparian habitats.

There is a slight potential that imazapic could come into contact with water if drift occurs during application. This chemical poses no risk to fish or aquatic wildlife if not applied directly to water. If some drift does occur near riparian systems there would be no impact to any aquatic wildlife utilizing those habitats.

Picloram is considered to have a low to moderate toxicity to aquatic organisms (BLM 2007). When applied at the typical or maximum rate, this chemical should pose little threat to aquatic species. Accidental spills or application over the recommend rate could impact freshwater fish and aquatic invertebrates.

Environmental Consequences, No Action Alternative: Under the current grazing system, most of the allotments are providing suitable habitat for aquatic wildlife. Habitat conditions would remain unchanged under this alternative. Vegetation treatments in the Proposed Action would help improve habitat conditions in allotments that were not meeting standards. These treatments would not occur under the No Action Alternative and habitat would not be improved.

Mitigative Measures: None.

Name of specialist and date: Desa Ausmus, 02/02/10.

Reference: *BLM Vegetation Treatments Using Herbicides, Final Programmatic EIS, June 2007.*

## **WILDLIFE, TERRESTRIAL**

Affected Environment: Native plant communities on the twelve allotments in the planning area are comprised of sagebrush stands, mixed mountain shrublands, pinyon-juniper woodlands, aspen and riparian areas. These communities typically provide habitat for big game species as well as small mammals, reptiles and birds. The planning area provides important habitat for wintering pronghorn antelope, mule deer and elk.

Environmental Consequences, Proposed Action: The grazing system described in the Proposed Action would incorporate rest, deferment and rotation, allowing for ample growing season rest and adequate plant recovery periods. The vegetative community is in good condition in most allotments, providing suitable and productive habitat for a variety of wildlife species. These conditions would continue under the grazing system described in the Proposed Action. Range improvement projects would improve wildlife habitat in the allotments that were not meeting standards.

Range Improvement Projects:

Vegetation treatments: Generally areas that have been impacted by invasive plants support fewer native wildlife species in areas with intact native plant communities. The Proposed Action would likely benefit wildlife by reducing cheatgrass and prickly pear cactus and promoting the establishment of native plant species that provide more suitable wildlife habitat and forage. Both

imazapic and piclorm are not considered highly toxic to terrestrial wildlife when applied at the recommended rate (BLM 2007) and would not harm individual animals or wildlife populations.

Water developments: The proposed ponds and wells would have minimal impacts to wildlife species. Additional water sources would improve upland and riparian vegetation conditions by evenly distributing grazing throughout the allotments, in turn, improving wildlife habitat. Habitat in the immediate vicinity of the ponds would be degraded by livestock congregation, however, this would not affect the productivity of the surrounding habitat. The water developments would also provide additional water sources for wildlife species.

Fencing: Fences have potential to result in mortality of big game species as elk, mule deer and antelope can become entangled in fence wires during crossing. The realigned fences would be constructed to BLM specifications for domestic sheep and wildlife and this would reduce the risks to big game species. Wooden stays should also be used to ensure wire tautness and decrease entanglement risks.

Fortification Creek Crossing: The creek crossing would have little to no impact on terrestrial wildlife species.

Environmental Consequences, No Action Alternative: Under the current grazing system, most of the allotments were found to be meeting all land health standards and providing suitable habitat for a variety of wildlife species. Habitat conditions would be expected to remain unchanged under this alternative. Vegetation treatments in the Proposed Action would help improve habitat conditions in allotments that were not meeting standards. These treatments would not occur under the No Action Alternative and habitat would not be improved.

Name of specialist and date: Desa Ausmus, 02/02/10.

Reference: *BLM Vegetation Treatments Using Herbicides, Final Programmatic EIS, June 2007.*

## **RANGE MANAGEMENT**

Affected Environment: The planning area covered under either alternative is comprised of 12 BLM grazing allotments consisting of 33,848 acres BLM lands, 12,415 acres State Land Board lands, and 7,852 acres private lands, totaling 54,115 acres that are authorized for 3,272 active animal unit months (AUMs).

Environmental Consequences, Proposed Action: Implementation of the proposed grazing plan provides clear and concise direction for management and authorized use of the public lands. It also provides for ease of administration resulting in reduced cost in regards to allotment(s) administration. Finally, it provides the best management practice that is both holistic and adaptive for the public land users and livestock operators.

Environmental Consequences, No Action Alternative: Continuing previously authorized

use would not result in adverse affects, but does not reflect the needs of current and future management, it merely carries on the dated management needs addressed ten years ago.

Name of specialist and date: Mark Lowrey, 12/30/09.

**OTHER NON-CRITICAL ELEMENTS:** For the following elements, those brought forward for analysis will be formatted as shown above.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Fluid Minerals		MM 02/02/10	
Forest Management	ML 12/30/09		
Hydrology/Ground		MM 02/02/10	
Hydrology/Surface		ELS 02/1/10	
Paleontology		MM 02/02/10	
Range Management			ML 12/30/09
Realty Authorizations		BB 01/22/10	
Recreation/Travel Mgmt		KMM 1/19/10	
Socio-Economics		BB 01/22/10	
Solid Minerals		JAM 1/25/10	
Visual Resources		KMM 1/19/10	
Wild Horse & Burro Mgmt	ML 12/30/09		

**CUMULATIVE IMPACTS SUMMARY:** These allotments and areas surrounding have historically been grazed by both sheep and cattle. Numerous maintained and unmaintained roads exist throughout the area, including on the allotments. These roads are used regularly by local residents and ranchers as well by as the primary recreation users in the area, hunters. Wildlife populations in the area are high, especially for deer and elk that compete with livestock for available forage throughout the area. The Proposed Action and No Action Alternative to continue grazing on these allotments is compatible with other uses, both historic and present, and would not add any new or detrimental impacts to those that are already present.

**STANDARDS**

<b>Allotment</b>	<b>Assessment Date(s)</b>	<b>All Standards Met</b>	<b>Standard(s) Not Met</b>	<b>Current Livestock Management a Causal Factor</b>	<b>Management Actions</b>
<b>Scandinavia #04518</b>	10/06/09	Yes	N/A	No	Cheatgrass Control in Dry Gulch. Plateau Treatment (1,000 acres) Submitted for 2011 Funding
<b>Comments:</b> Two of three sites were meeting all standards. One site in Dry Gulch did not meet native species and wildlife habitat criteria due to cheatgrass infestation. This area was not representative of the entire allotment.					
<b>North Pole Gulch #04553</b>	10/07/09	No	#3 – Healthy Productive Plant & Animal Communities #4 – Special Status, Threatened and Endangered Species	No	Cactus Treatment (500 acres) Submitted for 2011 Funding
<b>Comments:</b> Prickly pear cactus has reached undesirable levels causing adverse affects to the abundance and diversity of native vegetation. This is also negatively affecting habitat quality for the greater sage grouse.					
<b>West Four Mile #04513</b>	10/07/09	No	#3 – Healthy Productive Plant & Animal Communities #4 – Special Status, Threatened and Endangered Species	No	Cactus Treatment (500 acres) Submitted for 2011 Funding
<b>Comments:</b> Prickly pear cactus encroachment and an old burn area that has not recovered to native vegetation are having adverse affects to the abundance and diversity of native vegetation. This is also negatively affecting habitat quality for the greater sage grouse.					
<b>West Mud Spring #04510</b>	10/08/09	Yes	N/A	N/A	N/A
<b>East Mud Spring #04509</b>	10/08/09	Yes	N/A	N/A	N/A

Allotment	Assessment Date(s)	All Standards Met	Standard(s) Not Met	Current Livestock Management a Causal Factor	Management Actions
<b>Chicken Sage #04508</b>	10/07/08	No	2 – Riparian Systems	No	Rest and or limit use in east pasture where standards are not being met.
<b>Comments:</b> Approximately 1.5 miles of the lotic, South Fork Four Mile Creek (Reach 1, R-1) was assessed for Properly Functioning Condition (PFC). Over this entire reach there are small areas of incised channel and scours at frequent intervals. Other areas along this reach were in great condition. There were no obvious causal factors and no evidence of recent (past few years) overgrazing. Riparian vegetation was abundant, diverse, and vigorous in all areas except these incised areas and scours. One theory is that this reach was in a state of natural recovery from historic overuse. This theory is based on the documentation that there was one upland site near this riparian area that was not meeting standards in 2003, and has improved to meeting all standards in 2009. But, due to the frequency and abundance of these incised and scoured areas, R-1 of South Fork Four Mile Creek is rated at Functioning at Risk (FAR) with no apparent trend.					
<b>Fortification Rocks #04501</b>	08/06/09 & 10/08/09	Yes	N/A	N/A	N/A
<b>Little Fortification #04502</b>	10/08/09	Yes	N/A	N/A	N/A
<b>Lower Fortification #04506</b>	08/06/09	Yes	N/A	N/A	N/A
<b>Upper Four Mile #04500</b>	10/07/09	Yes	N/A	N/A	Periodic rest and limited use for the south pasture
<b>Comments:</b> The south site failed to meet standards in 2003, and is meeting standards in 2009. Although this allotment was meeting all standards it was agreed that overgrazing the southern pasture would cause standards not to be met due to the presence and potential spread of annual grasses.					
<b>Round Mountain #00014</b>	06/23-26/03	Yes	N/A	N/A	N/A
<b>West Black Mountain #04043</b>	06/23-26/03	Yes	N/A	N/A	N/A

See Appendix 1 - Attachments 3-12, for assessment locations. These sites are not permanent monitoring locations but randomly chosen to represent the most prevalent ecological sites in each allotment. Many of the sites assessed in 2009 were in the same general location as the 2003 assessments for the purpose of comparison.

All standards that are being met would continue to be met with implementation of either alternative. Standards not being met would move towards being met with implementation of the Proposed Action. Standards not being met would have less potential to move toward meeting standards with implementation of the No Action Alternative. Many of these allotments have been historically season long cattle allotments. For the allotments not meeting standards, causal factors have been attributed to historic grazing management and fire, not recent or current management. The majority of these sites were assessed on a watershed scale in 2003 and then on

an individual allotment scale in 2009. No sites showed degradation from 2003 to 2009 and a few sites showed improvement from failing in 2003 to meeting standards in 2009. Detailed assessment descriptions are available in individual allotment files.

**PERSONS/AGENCIES CONSULTED:** Uintah and Ouray Tribal Council, Colorado Native American Commission, Colorado State Historic Preservation Office, Stanley and Louis Peroulis.

**SIGNATURE OF PREPARER:**

**DATE SIGNED:**

**SIGNATURE OF ENVIRONMENTAL REVIEWER:**

**DATE SIGNED:**

### **Finding of No Significant Impact**

The environmental assessment, analyzing the environmental effects of the proposed action, has been reviewed. With the implementation of the attached mitigation measures there is a finding of no significant impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

1. Beneficial, adverse, direct, indirect, and cumulative environmental impacts have been disclosed in the EA. Analysis indicated no significant impacts on society as a whole, the affected region, the affected interests or the locality. The physical and biological effects are limited to the Little Snake Resource Area and adjacent land.
2. Public health and safety would not be adversely impacted. There are no known or anticipated concerns with project waste or hazardous materials.
3. There would be no adverse impacts to regional or local air quality, prime or unique farmlands, known paleontological resources on public land within the area, wetlands, floodplain, areas with unique characteristics, ecologically critical areas or designated Areas of Critical Environmental Concern.
4. There are no highly controversial effects on the environment.
5. There are no effects that are highly uncertain or involve unique or unknown risk. Sufficient information on risk is available based on information in the EA and other past actions of a similar nature.
6. This alternative does not set a precedent for other actions that may be implemented in the future to meet the goals and objectives of adopted Federal, State or local natural resource related plans, policies or programs.
7. No cumulative impacts related to other actions that would have a significant adverse impact were identified or are anticipated.
8. Based on previous and ongoing cultural surveys, and through mitigation by avoidance, no adverse impacts to cultural resources were identified or anticipated. There are no known American Indian religious concerns or persons or groups who might be disproportionately and adversely affected as anticipated by the Environmental Justice Policy.
9. No adverse impacts to any threatened or endangered species or their habitat that was determined to be critical under the Endangered Species Act were identified. If, at a future time, there could be the potential for adverse impacts, treatments would be modified or mitigated not to have an adverse effect or new analysis would be conducted.
10. This alternative is in compliance with relevant Federal, State, and local laws, regulations, and requirements for the protection of the environment.

**SIGNATURE OF AUTHORIZED OFFICIAL:**

**DATE SIGNED:**

**ATTACHMENT #1  
DOI-BLM-CO-N010-2010-0033-EA  
TERMS AND CONDITIONS**

**Standard Terms and Conditions**

- 1) Grazing permit or lease terms and conditions and the fees charged for grazing use are established in accordance with the provisions of the grazing regulations now or hereafter approved by the Secretary of the Interior.
- 2) They are subject to cancellation, in whole or in part, at any time because of:
  - a. Noncompliance by the permittee/lessee with rules and regulations;
  - b. Loss of control by the permittee/lessee of all or a part of the property upon which it is based;
  - c. A transfer of grazing preference by the permittee/lessee to another party;
  - d. A decrease in the lands administered by the Bureau of Land Management within the allotment(s) described;
  - e. Repeated willful unauthorized grazing use;
  - f. Loss of qualifications to hold a permit or lease.
- 3) They are subject to the terms and conditions of allotment management plans if such plans have been prepared. Allotment management plans **MUST** be incorporated in permits and leases when completed.
- 4) Those holding permits or leases **MUST** own or control and be responsible for the management of livestock authorized to graze.
- 5) The authorized officer may require counting and/or additional or special marking or tagging of the livestock authorized to graze.
- 6) The permittee's/lessee's grazing case file is available for public inspection as required by the Freedom of Information Act.
- 7) Grazing permits or leases are subject to the nondiscrimination clauses set forth in Executive Order 11246 of September 24, 1964, as amended. A copy of this order may be obtained from the authorized officer.
- 8) Livestock grazing use that is different from that authorized by a permit or lease **MUST** be applied for prior to the grazing period and **MUST** be filed with and approved by the authorized officer before grazing use can be made.
- 9) Billing notices are issued which specify fees due. Billing notices, when paid, become a part of the grazing permit or lease. Grazing use cannot be authorized during any period of delinquency in the payment of amounts due, including settlement for unauthorized use.
- 10) Grazing fee payments are due on the date specified on the billing notice and **MUST** be paid

in full within 15 days of the due date, except as otherwise provided in the grazing permit or lease. If payment is not made within that time frame, a late fee (the greater of \$25 or 10 percent of the amount owed but not more than \$250) will be assessed.

11) No member of, or Delegate to, Congress or Resident Commissioner, after his/her election of appointment, or either before or after he/she has qualified, and during his/her continuance in office, and no officer, agent, or employee of the Department of Interior, other than members of Advisory committees appointed in accordance with the Federal Advisory Committee Act (5 U.S.C. App. 1) and Sections 309 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) shall be admitted to any share or part in a permit or lease, or derive any benefit to arise therefrom; and the provision of Section 3741 Revised Statute (41 U.S.C. 22), 18 U.S.C. Sections 431-433, and 43 CFR Part 7, enter into and form a part of a grazing permit or lease, so far as the same may be applicable.

### **Common Terms and Conditions**

A) Grazing use will not be authorized in excess of the amount of specified grazing use (AUM number) for each allotment. Numbers of livestock annually authorized in the allotment(s) may be more or less than the number listed on the permit/lease within the grazing use periods as long as the amount of specified grazing use is not exceeded.

B) Unless there is a specific term and condition addressing utilization, the intensity of grazing use will insure that no more than 50% of the key grass species and 40% of the key browse species current years growth, by weight, is utilized at the end of the grazing season for winter allotments and the end of the growing season for allotments used during the growing season. Application of this term needs to recognize recurring livestock management that includes opportunity for regrowth, opportunity for spring growth prior to grazing, or growing season deferment.

C) Failure to maintain range improvements to BLM standards in accordance with signed cooperative agreements and/or range improvement permits may result in the suspension of the annual grazing authorization, cancellation of the cooperative agreement or range improvement permit, and/or the eventual cancellation of this permit/lease.

D) Storing or feeding supplemental forage on public lands other than salt or minerals must have prior approval. Forage to be fed or stored on public lands must be certified noxious weed-free. Salt and/or other mineral supplements shall be placed at least one-quarter mile from water sources or in such a manner as to promote even livestock distribution in the allotment or pasture.

E) Pursuant to 43 CFR 10.4(g), the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

The operator is responsible for informing all persons who are associated with the allotment

operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any allotment activities or grazing activities, the operator is to immediately stop activities in the immediate vicinity and immediately contact the authorized officer. Within five working days the authorized officer will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places;
- the mitigation measures the operator will likely have to undertake before the identified area can be used for grazing activities again.

If paleontological materials (fossils) are uncovered during allotment activities, the operator is to immediately stop activities that might further disturb such materials and contact the authorized officer. The operator and the authorized officer will consult and determine the best options for avoiding or mitigating paleontological site damage.

F) No hazardous materials/hazardous or solid waste/trash shall be disposed of on public lands. If a release does occur, it shall immediately be reported to this office at (970) 826-5000.

G) The permittee/lessee shall provide reasonable administrative access across private and leased lands to the BLM and its agents for the orderly management and protection of public lands.

H) Application of a chemical or release of pathogens or insects on public lands must be approved by the authorized officer.

I) The terms and conditions of these permits or lease may be modified if additional information indicates that revision is necessary to conform with 43 CFR 4180.