

**U.S. Department of the Interior  
Bureau of Land Management  
White River Field Office  
220 E Market St  
Meeker, CO 81641**

## **ENVIRONMENTAL ASSESSMENT**

**NUMBER:** CO-110-2008-252-EA

**PROJECT NAME:** Grazing Lease Renewal for the Flag Creek Allotment, #06816

**LEGAL DESCRIPTION:** Township 1 South, Range 93 West, 6<sup>th</sup> P.M.  
Sections: 23, 25, 26, and 34 – 36

Township 2 South, Range 93 West, 6<sup>th</sup> P.M.  
Sections: 1 - 4

**APPLICANT:** Lowell and LoAnn Klinglesmith (Grazing Authorization #0501504)

**ISSUES AND CONCERNS** (optional): None

### **DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:**

***Background/Introduction:*** The Flag Creek allotment is located in Rio Blanco County, Colorado and is located approximately five (5) miles south of the town of Meeker, Colorado. The public lands within this allotment are not accessible by the public. Within this allotment there are two fenced pastures (North Side and South Side) that include Bureau of Land Management (BLM) lands. The North Side, Pasture A contains 172 acres that are BLM lands of the total 490 acres within the pasture and Pasture B contains 162 acres that are BLM lands of the total 640 acres. Within the South Side, Pasture A contains 375 acres that are BLM lands of the total 791 acres and Pasture B contains 373 acres that are BLM lands of the total 601 acres. Elevation for these pastures range from 7,000 to 8,300 feet. All White River Field Office (WRFO) grazing allotments have been placed in one of three management allotment categories that define the intensity of management: (1) improve, (2) custodial, and (3) maintain. This allotment has been placed in the maintain category but has switched since the White River Resource Management Plant (RMP) from sheep to cattle in kind of livestock.

**Proposed Action (Alternative A):** The proposed action is for the renewal of Lowell and LoAnn Klinglesmith grazing lease 0501504 for a term of ten years. The proposed grazing authorization is for a grazing schedule of high intensity, short duration from the previous authorization of both the North and South pastures from May 1 to May 31. In addition, on the North Pasture 12 horses return from October 1 until November 15, and 20 cattle return from October 15 to November 15. Further, in the South Pasture 12 horses return from October 1 to November 30 each year. The

proposed action includes changes in the boundaries, acreages, pastures, and percent federal range, livestock numbers, livestock kind, and dates will be adjusted. The boundary changes have no effect on any other permittee in the White River Field Office.

| <b>PROPOSED SCHEDULE</b>                    |                         |             |                |                 |              |                 |
|---|-------------------------|-------------|----------------|-----------------|--------------|-----------------|
| <b>Flag Creek Allotment, Pasture Names:</b> | <b>Livestock Number</b> | <b>Kind</b> | <b>On Date</b> | <b>Off Date</b> | <b>% BLM</b> | <b>BLM AUMs</b> |
| North Side                                  | 250                     | Cattle      | 5/5            | 5/31            | 24           | 53              |
|   | 12                      | Horses      | 10/01          | 11/15           |              | 4               |
|   | 20                      | Cattle      | 10/15          | 11/15           |              | 5               |
| South Side                                  | 300                     | Cattle      | 5/01           | 5/31            | 47           | 144             |
|   | 12                      | Horse       | 10/01          | 11/30           |              | 11              |
| <b>Flag Creek Total</b>                     |                         |             |                |                 |              | <b>217</b>      |

**Terms and conditions:** The following Terms and Conditions as provided for by 43 CFR 4130.3-2 will be incorporated in this grazing permit renewal:

1. Any changes in grazing use must be applied for prior to the grazing period.
2. Each year billing notices are issued which specify, for the current year, the allotment, number and kind of livestock, period(s) of use, animal unit months of use, and the grazing fees due. These billing notices when paid become a part of this grazing lease.
3. Grazing fees are due upon issuance of a billing notice and must be paid in full prior to making any grazing use under this grazing permit/lease, unless otherwise provided for in the terms and conditions of this grazing permit/lease.
4. No grazing use can be authorized under this grazing lease during any period of delinquency in the payment of amounts due in settlement for unauthorized grazing use.
5. Grazing use authorized under this grazing lease may be suspended, in whole or in part, for violation by the permittee/lessee of any of the provisions of the rules or regulations now or hereafter approved by the Secretary of the Interior.
6. This grazing lease is subject to cancellation, in whole or in part, at any time because of:
  - a. Noncompliance by the permittee/lessee with rules and regulations now or hereafter approved by the Secretary of the Interior.
  - 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 herein.

- e. Repeated willful unauthorized grazing use.
7. This grazing lease is subject to the provisions of executive Order No. 11246 of September 24, 1965, as amended, which sets forth nondiscrimination clauses. A copy of this order may be obtained from the authorized officer.
8. The permittee/lessee must own or control and be responsible for the management of the livestock authorized to graze under this grazing lease.
9. The authorized officer may require counting and/or additional or special marking or tagging of the livestock authorized to graze under this grazing lease.
10. The permittee/lessee grazing case file is available for public inspection as required by the Freedom of Information Act.
11. Actual Use information, for each use area, will be submitted to the authorized officer within 15 days of completing grazing use as specified on the grazing lease and/or grazing billings in accordance with 43 CFR 4130.3-2(d).
12. In order to improve livestock distribution on the public lands, all salt blocks and/or mineral supplements will not be placed within a 1/4 mile of any riparian area, wet meadow, or any other live water source unless stipulated through a written agreement or decision in accordance with 43 CFR 4130.3-2(c).
13. In Accordance with 43 CFR 4130.8-1(F): Failure to pay grazing bills within 15 days of the due date specified in the bill shall result in a late fee assessment of \$25.00 or 10 percent of the grazing bill, whichever is greater, but not to exceed \$250.00. Payment made later than 15 days after the due date, shall include the appropriate late fee assessment. Failure to make payment within 30 days may be a violation of 43 CFR Sec. 4140.1(b) (1) and shall result in action by the authorized officer under 43 CFR Secs. 4150.1 and 4160.1-2.

**Monitoring and Evaluation:** There are currently no long term trend sites established in the Flag Creek allotment. Land Health Assessments, utilization data, and actual use data will be used in the future to determine the need to or ability to adjust livestock numbers or season of use.

**No Grazing (Alternative B):** The no-grazing alternative consists of not issuing a grazing lease for livestock use. There would be no livestock grazing on public lands within the allotment on which it is currently permitted.

**ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD:** **Continuation of Current Management:** Because of changes in the allotment boundaries including pasture fencing which in turn changed the acreages, the percent federal range, the livestock numbers, dates and kind to reflect the proposal by the operator from the previous authorization the

continuation of current management was not carried forward for consideration as outlined below.

| CURRENT MANAGEMENT                    |                  |        |         |          |              |            |
|---------------------------------------|------------------|--------|---------|----------|--------------|------------|
| Flag Creek Allotment, Pastures Names: | Livestock Number | Kind   | On Date | Off Date | % BLM        | BLM AUMs   |
| North Side                            | 90               | Cattle | 05/15   | 06/30    | 23           | 32         |
|                                       | 90               | Cattle | 10/15   | 11/30    |              | 32         |
| South Side                            | 110              | Cattle | 5/15    | 6/30     | 47           | 80         |
|                                       | 110              | Cattle | 10/15   | 11/30    |              | 80         |
|                                       |                  |        |         |          | <b>Total</b> | <b>225</b> |

**NEED FOR THE ACTION:** Lowell and Loann’s BLM grazing lease # 0501504 which authorizes grazing on the Flag Creek allotment (#06816) expired on February 28, 2009. This lease is subject to renewal or transfer at the discretion of the Secretary of the Interior for a period of up to ten years.

**PLAN CONFORMANCE REVIEW:** The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: Pages 2-22 through 2-26

Decision Language: With minor exceptions, livestock grazing will be managed as described in the 1981 Rangeland Program Summary (RPS). That document is the Record of Decision for the 1981 White River Grazing Management Final Environmental Impact Statement (Grazing EIS)

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

**STANDARDS FOR PUBLIC LAND HEALTH:** In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

The table below provides a comparison of findings and expected findings by alternative of acreages/miles currently meeting and not meeting or expected to meet or not meet each standard.

The Current Situation column analyzes conditions based on AUMs and season of use in the grazing permit that has been in effect on the allotment for the past ten years. The Alternative A column analyzes expected affects of the Proposed Action (reductions in overall AUMs used and reductions in grazing use during critical growing season) on rangelands throughout the allotment. Alternative B analyzes the expected outcomes of a removal of livestock grazing from the allotment.

These findings, by resource, are based on a variety of methods including but not limited to Land Health Assessments, utilization studies, long term trend monitoring studies and Proper Functioning Condition assessments and are listed by specific elements in the table below. Each element is discussed in detail in the appropriate sections appearing later in the document.

| <b>STANDARDS FOR PUBLIC LAND HEALTH</b>           |  |                            |  |                            |
|---|--|----------------------------|--|----------------------------|
| <b>Standard</b>                                   | <b>With Proposed Action</b>                        |                            | <b>With No Grazing</b>                             |                            |
|   | <b>Acres Achieving or Moving Towards Achieving</b> | <b>Acres Not Achieving</b> | <b>Acres Achieving or Moving Towards Achieving</b> | <b>Acres Not Achieving</b> |
| <b>#1-Upland Soils (acres)</b>                    |  |                            |  |                            |
|   | 1082   | 0                          | 1082   | 0                          |
| <b>#2-Riparian Systems (miles)</b>                |  |                            |  |                            |
|   | -0.1   | 0                          | -0.1   | 0                          |
| <b>#3-Plant Communities (acres)</b>               |  |                            |  |                            |
|   | 1082   | 0                          | 1082   | 0                          |
| <b>#3-Animal Communities (acres)</b>              |  |                            |  |                            |
|   | 1082   | 0                          | 1082   | 0                          |
| <b>#4-Special Status, T&amp;E Species (acres)</b> |  |                            |  |                            |
|   | 1082   | 0                          | 1082   | 0                          |
| <b>#5-Water Quality (stream miles)</b>            |  |                            |  |                            |
|   | 5  | 0                          | 5  | 0                          |

## **NATURAL, BIOLOGICAL, AND CULTURAL RESOURCES**

### **AIR QUALITY**

*Affected Environment:* This Proposed Action is located in rural northwest Colorado in the White River Basin, more than ten miles from special designation air sheds or non-attainment areas. Industrial facilities in White River Basin include coal mines, soda ash mines, natural gas processing plants and power plants. Due to these industrial uses and increased population and oil and gas operations in this region, emissions of air pollutants in the White River Basin due to exhaust emissions and dust (particulate matter) are likely to occur and increase into the future. Despite increases in emissions, overall air quality conditions in the White River Basin are likely to continue to be good for some time to come due to effective atmospheric dispersion conditions and limited transport of air pollutants from outside the area. The White River Field Office (WRFO) resource area has been classified as either attainment or unclassified for all air

pollutants, and most of the area has been designated for the prevention of significant deterioration (PSD) class II.

*Environmental Consequences of Alternative A, Proposed Action:* The environmental consequences to air quality from Alternative A would include the periodic and local production of dust due to cattle trailing to and from forage, water and nutrient sources. The most likely time for increased dust production due to approved activities will be during periods of the day that cattle move to water, forage and/or nutrients, between pastures and onto and off of the allotment. Dust levels may be noticeable locally and especially during drier times. The Colorado Air Pollution Control Division (APCD) estimates the maximum PM<sub>10</sub> levels (24-hour average) in rural portions of western Colorado to be near 50 micrograms per cubic meter (µg/m<sup>3</sup>). This alternative is not likely to exceed this western Colorado dust standard.

*Environmental Consequences of Alternative B, No Grazing Alternative:* Impacts from the no-action alternative would result in no dust production due to grazing activities.

*Mitigation:* None Identified.

## **SOILS** (includes a finding on Standard 1)

*Affected Environment:* Soil objectives of the White River ROD/RMP are to prevent impairment of soil productivity due to accelerated erosion and physical or chemical degradation resulting from surface use activities, including livestock grazing. Soils vegetated with sufficient cover of desirable perennial plant species that also produce adequate litter and ground cover to minimize runoff and provide for soil protection are considered to be meeting Colorado Public Land Health Standards for upland soils.

Soils analyzed in this document are presented in the Soil Survey of Rio Blanco County, published by the Natural Resource Conservation Service (NRCS). The Livestock Grazing Capacity tables in the Rangeland Management section below provide a breakdown of the individual soil units and associated ecological sites on BLM administered lands within the allotment.

*Environmental Consequences of the Proposed Action:* The proposed grazing authorization is for a high intensity, short duration grazing system with grazing beginning around May 1 but ending by May 31 and then the return of 12 - 20 head of livestock starting October 1. The previous authorization was from May 15 until June 30 with return of the same number of livestock starting October 15. In general, the effect in the grazing use proposed will provide for a continual growing period thus allowing the plants the ability to complete their growth to maturity and seed production.

*Environmental Consequences of the No Grazing Alternative:* No grazing by livestock would fully address Colorado Livestock Grazing Management Guidelines for soil stability, simply because the allotment would receive no grazing pressure from livestock on the public lands. Overall, under the no grazing alternative soil objectives outlined in the White River

ROD/RMP and Public Land Health Standards would be addressed with benefits to ground cover. Improvements would occur due to increased residual vegetation in the uplands effectively protecting soils from wind and water erosion. Increased establishment of deeper rooted native perennial grasses especially in drainage bottoms would also result in improved water infiltration into the soil.

*Mitigation:* None

*Finding on the Public Land Health Standard for upland soils:* The proposed allotment management will continue to meet all standards for land health with regard to soils with this grazing use.

## **WASTES, HAZARDOUS OR SOLID**

*Affected Environment:* There are no known hazardous wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at sites in the allotments. There are no known solid waste dump sites within the allotments.

*Environmental Consequences of Alternative A, Proposed Action:* No listed or extremely hazardous materials are proposed for use in this project. All applications of pesticides would be in compliance with BLM requirements.

*Environmental Consequences of Alternative B, No Grazing Alternative:* No hazardous or other solid wastes would be generated under the no-action alternative.

*Mitigation:* Please contact the BLM – WRFO Hazardous Materials Coordinator at (970) 878-3800 and/or the Colorado Department of Public Health and Environment (CDPHE) through the 24-hour spill reporting line at 1 (877) 518-5608, if the permittee suspects the release of any chemical, oil, solid waste, petroleum product, or sewage in the allotment.

## **WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)**

*Affected Environment:* This allotment is in entirely within White River Segment 9a, which is for tributaries to the White River, including all wetlands, lakes and reservoirs, from the confluence of North and South Forks to a point immediately above the confluence with Piceance Creek. This segment is protected for Cold Aquatic Life 2, Recreation 2, Water supply and Agriculture. Flag Creek is a significant tributary to the White River and is just below the pastures included in this allotment. Grazing impacts could potentially impact Flag Creek

*Environmental Consequences of the Proposed Action:* The proposed grazing schedule is high intensity and short duration for both the North and South pastures from May 1 to May 31. The pastures would also be grazed on the North Pasture with 12 horses and 20 cattle from October 15 to November 15 and 12 horses in the South Pasture from October 1 to November 30.

The proposed action includes changes in the boundaries, acreages, pastures, and percent federal range, livestock numbers, livestock kind, and dates will be adjusted.

Only a portion of this allotment is on BLM administered lands. The North Pasture contains 27 percent and the South Pasture contains 47 percent BLM administered lands. The BLM administered land in general has steep slopes (greater than 35%) and some areas with landslide potential. Since the private sections of these pastures are generally flatter and more accessible, it is likely that the private portions of the pastures will be more utilized than the BLM administered sections.

A portion of the BLM administered lands are identified as having landslide potential. These areas (Jerry-Thornburgh-Rhone complex soils with 8 to 65 percent slopes) have soils that are shale derived and have the potential for shrinking and swelling with a hazard of landslides. Grazing use in these areas is unlikely due to the topography and land ownership patterns, but if grazing does occur in these areas impacts could occur.

Grazing removes vegetation that may help reduce rain splash erosion, lessen surface runoff and livestock often preferentially remove grass and forb species that form root masses that hold together soil matrices better than non-desirable species. This may lead to a vegetation shift to grasses and forbs that are not as beneficial to water quality, such as cheat grass. Hoof action from trailing to and from water, nutrient and forage sources as well as travel through pastures create preferential flow paths that can concentrate overland flow and intercept subsurface flows. These impacts will be assessed and if impacts are observed and changes may occur during yearly range management modifications to address specific situations. With good grazing management impacts are not expected beyond those typically experience on public lands from grazing.

The BLM-WRFO manages grazing on public lands according to the 1997 RMP for the WRFO that outlines Standards and Guidelines for Public Land Health and Colorado Livestock Grazing Management Guidelines. These Standards include guidelines for upland soils, riparian systems, healthy desirable plant species, and water quality (both surface and ground). The Water Quality may improve indirectly from the improved condition of the riparian areas under the Proposed Actions management but should be evaluated for standards to maintain the beneficial functions of health riparian areas for water quality.

*Environmental Consequences of the No Grazing Alternative:* The no grazing alternative would not be in conformance with the 1997 RMP. However, nonuse of this area for grazing would generally improve water quality as compared to the Proposed Action or the No Action alternative.

*Mitigation:* Stocking rates should be reduced during periods of drought and/or during periods of drought recovery to improve upland health.

Immediate action should be taken to reduce trailing issues when they are identified. If accelerated erosion (rilling, gullying etc.) is occurring due to trailing please contact the authorized officer to determine if a change in management or a rangeland development project should be constructed or the grazing approach altered to reduce impacts.

*Finding on the Public Land Health Standard for water quality:* Designated and proposed uses are consistent with the water quality classification of Cold Aquatic Life 2, Recreation 2, Water supply and Agriculture for Segment 9a, tributaries to the White River. This permit change would not cause and exceedance of Colorado water quality standards.

**WETLANDS AND RIPARIAN ZONES** (includes a finding on Standard 2)

*Affected Environment:* There is one known riparian location in association with a spring located in Township 1 South, Range 94 West, Section 26, NENW located on the public lands within this allotment. This spring will be inventoried summer 2009 to determine maintenance and or abandonment options (see the Hydrology and Water Rights section for details).

*Environmental Consequences of the Proposed Action:* Under the proposed action this approximately 0.1 acre of riparian that occurs on public lands will be inventoried and determinations made between the BLM and the permittee regarding maintenance and/or abandonment (see the Hydrology and Water Rights section for details). All of the other locations identified as wetlands and riparian zones are located on private lands within this allotment.

*Environmental Consequences of the No Grazing Alternative:* The wetland/riparian zones would not change under this alternative.

*Mitigation:* None.

*Finding on the Public Land Health Standard for riparian systems:* There is no finding in regard to the standard however an inventory will be done on the spring as per the mitigation listed under Hydrology and Water Rights section.

**VEGETATION** (includes a finding on Standard 3)

*Affected Environment:* All the of the BLM parcels except for in Pasture A of the South Pasture are partially composed of a mature stand of Gambel Oak along with some pinyon – juniper trees on various facing slopes of various facing aspects with some minor inclusions of serviceberry and snowberry. The understory components and plant communities associated with this type of canopy cover, and the pastures within the allotment in general, is a developed grass-forb understory, along with good residual and litter throughout the federal acreage.

For Pasture A of the South Pasture, the BLM parcel includes an area composed of a mature stand of Douglas Fir along with gambel oak, serviceberry and snowberry understories on what would be a steep, north facing slope. The vegetation and woodland types on public land described by range sites are as follows:

| NORTH PASTURES RANGE SITES  | SPECIES   |
|---|---|
| Brushy Loam, Loamy Slopes, Deep Clay Loam, PJ Woodlands, Clayey Slopes, | Western wheatgrass, mountain brome, sandberg bluegrass, big sagebrush, Eriogonum, balsamroot, rabbitbrush, snowberry, |

| <b>NORTH PASTURES RANGE SITES</b>  | <b>SPECIES</b>  |
|--|---|
| Deep Loam, Mountain Loam, Stoney Foothills   | serviceberry, prairie junegrass, Indian ricegrass, muttongrass, Indian paintbrush, phlox, buckwheat, scarlet globemallow, mountain mahogany, pinyon, juniper, gambel oak  |
| <b>SOUTH PASTURES RANGE SITES</b>  | <b>SPECIES</b>  |
| Brushy Loam, Loamy Slopes, Rolling Loam, Mountain Loam, PJ Woodlands, Clayey Slopes, Deep Loam, Deep Clay Loam | Western wheatgrass, mountain brome, sandberg bluegrass, big sagebrush, Eriogonum, balsamroot, rabbitbrush, snowberry, serviceberry, prairie junegrass, Indian ricegrass, muttongrass, Indian paintbrush, phlox, buckwheat, scarlet globemallow, mountain mahogany, pinyon, juniper, gambel oak, Douglas fir |

*Environmental Consequences of the Proposed Action:* All of the range sites within the allotment represent plant communities within acceptable thresholds for healthy communities and within acceptable levels of a desired plant community. Vegetation production and species composition on these sites provided adequate cover for forage production to meet forage demands. The proposed grazing use for the allotment is expected to maintain the current rangeland conditions but will not likely change the seral rating on these range sites. The proposed grazing authorization is for a high intensity, short duration grazing system with grazing beginning May 1 and ending on May 31 and with a return of 12 - 20 head of livestock on October 1. The effect in the grazing use proposed, once the livestock are removed, will provide for a continual growing period thus allowing the plants the ability to complete their growth to maturity and seed production. The livestock grazing that returns in October will be on plants that have gone dormant for the season.

*Environmental Consequences of the No Grazing Alternative:* The no grazing alternative is expected to maintain the current rangeland condition and seral range site ratings.

*Mitigation:* None

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): The communities meet or exceed the Colorado Public Land Health Standards.

## **INVASIVE, NON-NATIVE SPECIES**

*Affected Environment:* Noxious weeds of concern from neighboring private and public lands include houndstongue, Canada, bull and musk thistles, and yellow toadflax. The lease holder has an active weed control program in place on the private lands.

*Environmental Consequences of the Proposed Action:* The above described noxious weeds create problems to this area and neighboring areas, but if treated would aid to maintain the native plant community composition and productivity. Currently no infestations of invasive, non-native species is noted, however, isolated plants of those identified above may exist.

*Environmental Consequences of the No Grazing Alternative:* Where invasive species exist on the public lands associated with this allotment they would require treatment to control the increase and/or spread of invasive species.

*Mitigation:* On public lands, application of herbicides must be under field supervision of an EPA certified pesticide applicator. Herbicides must be registered by the EPA and application proposals must be approved by the BLM prior to application.

**THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES** (includes a finding on Standard 4)

*Affected Environment:* There is not any plant species listed, proposed, or candidate to the Endangered Species Act, or plants considered sensitive by the BLM, within the proposed action.

*Environmental Consequences of the Proposed Action:* The proposed action would have no influence on known special status species or associated habitats.

*Environmental Consequences of the No Action Alternative:* There would be no action authorized that would influence known special status species or associated habitats.

*Mitigation:* None

*Finding on the Public Land Health Standard for Threatened & Endangered species:* The proposed and no-action alternatives would have no influence on known populations or habitats of plants associated with the Endangered Species Act or BLM sensitive species and, as such, would have no influence on the status of applicable land health standards.

**THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES** (includes a finding on Standard 4)

*Affected Environment:* No listed, proposed, or candidate animals inhabit or derive important benefit from the shrublands and woodlands associated with the allotment. Greater sage-grouse is the only possible BLM-sensitive animal known to occur in or near the allotment. Bureau of Land Management administered surface potentially suited for sage-grouse use consists of a narrow margin of sagebrush habitat (about 12 acres) adjacent to a contiguous 620-acre block of privately owned sagebrush basins within and adjacent to the allotment's north pasture. Although the east half of the allotment is identified as overall range by the Colorado Division of Wildlife (CDOW), it is uncertain whether sage-grouse continue to use these basins. It is suspected that these lands are regularly treated to enhance livestock forage production.

*Environmental Consequences of the Proposed Action:* Although BLM-administered surface contributes virtually nothing to habitats available for seasonal use by sage-grouse, the proposed changes in grazing management would be expected to be somewhat more consistent with ground cover conditions favoring grouse reproductive activity. Virtually all sagebrush

habitats best suited for sage-grouse nesting are associated with privately controlled lands that are closely associated with water developments. These habitats are subject to progressive reductions in herbaceous ground cover beginning in mid-May, when nest site locations are being selected and clutches being laid, with maximum and likely heavy use exerted through the incubation and hatching of broods at the end of June. Currently, limited interstitial ground cover (and little opportunity for redevelopment) among sagebrush canopies provides little concealment and/or protective cover at a time when young (<5 weeks old) broods are most vulnerable to predation and exposure. As proposed, heavy grazing use around water developments would continue to occur through the early days of incubation, but ground cover would be allowed to recover from early June, which would provide 2-4 weeks of herbaceous redevelopment during the later stages of incubation and continued recovery of ground cover through the early brood-rearing period. In summary, although heavy use of herbaceous ground cover occurring in May, may generally detract from nesting in these sagebrush habitats, the proposed action would allow for progressive recovery of functional ground cover that would promote successful outcomes for any attempts that were made.

*Environmental Consequences of the No Grazing Alternative:* In the absence of livestock grazing, ground cover conditions on BLM lands suitable for sage-grouse would remain near optimal throughout the nesting season. However, regardless of condition, BLM-administered habitat within this allotment contributes virtually nothing to an effective habitat base (i.e., 12 of 640 acres of habitat).

*Mitigation:* None.

*Finding on the Public Land Health Standard for Threatened & Endangered species:* BLM surface contributes little or nothing to an effective habitat base for sage-grouse in this allotment, and as such, the Land Health Standard cannot be meaningfully applied to or contrasted between alternatives.

## **MIGRATORY BIRDS**

*Affected Environment:* BLM-administered parcels within this allotment are composed of mountain shrub slopes (460 acres), steep south-facing slopes with sparse pinyon-juniper or serviceberry (300 acres), mixed shrub-steppe (200 acres), and sagebrush-steppe (120 acres) communities. This complex shrubland matrix supports a rich breeding assemblage of migratory birds, including dusky flycatcher and Virginia's warbler (USFWS Bird of Conservation Concern, BOCC) in the deciduous shrub communities, and green-tailed towhee and Brewer's sparrow (BOCC) in the shrub-steppe types. The allotment's relatively small and discontinuous stands of open-canopied woodlands are situated on the eastern fringe of this area's pinyon-juniper distribution and woodland bird communities, particularly on these steep, barren slopes, tend to be poorly represented in terms of density and frequency. Those BOCC expected in pinyon-juniper habitats, including juniper titmouse, pinyon-jay, and Cassin's finch are found sparingly in this area. Most of these birds return to nest by mid-May and complete nesting functions by mid-July.

Well-developed herbaceous understories contribute universally to the maintenance of favorable nest habitat conditions for these avian communities. Intervening herbaceous cover enhances nest concealment and improves microclimatic conditions at the nest (improving nest success) and, once hatched, well developed herbaceous density and height and species-rich understory composition offers resources and substrate for an abundant source of invertebrate prey that is of paramount nutritional value for developing young.

Current grazing use extends from mid-May through the end of June, a timeframe that coincides with nest initiation, incubation, and much of the nestling period for most non-game birds. Breeding bird densities in shrub communities are positively correlated with herbaceous volume and height; four-fold increases in herbaceous foliage density doubled breeding bird populations in mesquite grassland in Arizona. It is reasonable to suggest that grazing effects within 0.25 mile of water are capable of reducing breeding bird density by up to half. The majority of the allotment's larger and more reliable water developments are located on private lands; BLM-administered lands tend to involve steeper terrain more distant from these waters.

*Environmental Consequences of the Proposed Action:* Ostensibly, the proposed action would increase the period of reliable herbaceous regrowth after grazing use by 2-6 weeks. Everything being equal, rest through June and into July would be expected to promote redevelopment of an effective understory component prior to dormancy. Without indications of internal rotations within or among pastures, there is some concern that persistent patterns of early season use at twice the current stocking rate may, in the longer term, result in localized undesirable changes in plant vigor, soil compaction, and herbaceous composition. However, these effects are more likely to occur on the private lands since much of the BLM surface in the allotment is more distant from water and composed of steeper terrain or heavy shrub canopies that are less likely to attract or sustain concentrated cattle use. For example, about 20% of the allotment is comprised of steep slopes and/or pinyon-juniper woodlands—nearly 80% of these lands are BLM-administered surface.

As proposed, follow-up dormant season use of these pastures would be reduced to one-third the current overall intensity. Actual use of BLM surface may be further diminished since small number of animals would be less likely to stray from milder and better watered private holdings.

It is unlikely that herbaceous expression has a strong influence on nest success of woodland-associated species and the proposed action would not be expected to alter reproductive functions of this group, particularly those birds of conservation concern. Similarly, and because livestock would tend to make lesser use of steeper terrain with high woody stem densities, changes in livestock use would not likely affect those species associated with deciduous shrub-dominated habitats. These situations account for about 70% of all BLM surface within the allotment.

Although livestock are proposed to be removed early in the nesting season, proposed increases in the intensity of livestock use, especially around water, would elevate reductions in herbaceous ground cover early in the nesting season and reduce the availability of suitable nest sites across broader areas within the allotment. This effect would be most notable on sagebrush and mixed shrub habitats (about 30% of BLM surface within the allotment) within 0.25 mile of water, but in contrast to current grazing use, would presumably influence ground cover conditions up to 0.5

mile from water. On the other hand, subsequent regrowth and development of ground cover through the incubation period would be consistent with conditions conducive to improved nest success and fledgling recruitment. Reduced fall use, too, may increase the availability of residual ground cover early in the nesting season that may increase the availability of suitable nest sites on those areas more distant from concentrated use areas.

Considered together, it is roughly estimated that the proposed increase in use intensity would result in a 10-15% decline in potential breeding bird abundance on BLM-administered sagebrush and mixed shrub communities. Attributing modest increases in nest success and recruitment (10-20%) to substantial understory recovery through the nesting season, the collective change from current breeding bird reproductive capacity is expected to be small (e.g., -5% or less across 30% of BLM surface, no change across remaining 70%).

*Environmental Consequences of the No Grazing Alternative:* In the absence of livestock grazing, ground cover conditions remain near optimal for most breeding birds throughout the nesting season. In contrast to both current and proposed management, this effect would be most prominent on that sagebrush and mixed shrub acreage within 0.25 mile, and up to 0.5 mile, of water (8-26% of BLM surface in allotment). Although big game use, especially elk, would persist during the fall and winter months, it is unlikely that grazing use intensity would exceed incidental or light levels. Particularly for Birds of Conservation Concern (i.e., Brewer's sparrow), herbaceous development in the allotment's sagebrush-dominated habitats (about 120 BLM acres allotment-wide) represents the most marked potential for change in breeding populations of migratory birds. Excluding livestock from the BLM parcels within the allotment would presumably increase breeding bird abundance by about 50 pair across the 315 BLM acres within 0.5 mile of water. It is estimated that this increase could involve up to a dozen pair of BOCC involving exclusively Brewer's sparrow across 120 acres of sagebrush-dominated habitats. Grazing effects would continue to occur as present across 700 acres of privately owned sagebrush habitats within the allotment.

*Mitigation:* None.

### **WILDLIFE, AQUATIC (includes a finding on Standard 3)**

*Affected Environment:* All BLM lands within the allotment drain to Flag Creek, a privately-owned perennial system that is known to support amphibians (e.g., chorus frogs), but is not known to harbor a fishery. The creek is separated from the BLM parcels by varying intervals of privately owned uplands (0-1.75 miles, mean = 0.8 mile), that are managed consistent with the BLM inclusions and a continuous series of irrigated haylands along the Flag Creek valley. Although the BLM has no formal documentation of conditions on these privately-owned stream reaches, Flag Creek is known to function reasonably well and there are no apparent sediment imbalances that have prompted episodes of channel instability. Flag Creek empties into the White River, the fishery nearest the allotment, about 6.5 miles downstream.

*Environmental Consequences of the Proposed Action:* Because there are no indications of ongoing problems with overland or channel erosion on this allotment, there is no reason to

believe that the proposed action, which would allow for increased herbaceous expression and residual into the spring runoff period, would elevate the level of sediments reaching Flag Creek or the White River.

*Environmental Consequences of the No Grazing Alternative:* Although strong herbaceous accumulations that would attend livestock removal would likely reduce sediment originating from BLM-administered parcels, removal of cattle from about 23% of the North pastures and 25% of the South pastures would have no measurable influence on overall sediment loads reaching aquatic habitats associated with Flag Creek or the White River.

*Mitigation:* None.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Terrestrial): Alternative management strategies addressed in this EA would have no measurable influence on any downstream system that supports an aquatic community and would, therefore, have no influence on the status of these streams' functional condition.

#### **WILDLIFE, TERRESTRIAL** (includes a finding on Standard 3)

*Affected Environment:* The BLM parcels in the north and south pastures, range in elevation from about 6800' to about 8200' and are composed primarily of mountain shrub slopes (460 acres), steep south-facing slopes with sparse pinyon-juniper or serviceberry (300 acres), mixed shrub-steppe (200 acres), and sagebrush-steppe (120 acres) communities. In general, these communities host well-developed bunchgrass-forb understories.

These ranges are used predominantly by elk and deer during the winter months, with smaller numbers persisting through the summer at higher elevations on the east and west margins of the allotment. The productive understories associated with the allotment's complex interspersion of woody plant communities provide a varied source of herbaceous forages that are nutritionally important for big game during the post-partum period and in preparation for the winter season.

The allotment's higher elevation mixed sagebrush and mountain shrub communities are used by dusky grouse for nesting and brood-rearing functions. These habitats are distributed across the allotment at elevations above 7200' and involve about 90 acres in Pasture A North, 230 acres in Pasture B South and 50 acres in Pasture A South. Mixed shrub communities on mild slopes offer habitat best suited for dusky grouse nesting and early brood rearing functions. Heavier deciduous shrub canopies and steeper slopes are used more often as broods mature. The height and density of the herbaceous understory is an important factor in the suitability of dusky grouse nest and brood-rearing habitats. Well developed herbaceous understories are thought to provide scent, visual and physical barriers to potential predators and provide microclimatic conditions conducive to improved hatching success. Diets of grouse chicks are comprised almost exclusively of forbs and invertebrates. By the end of October, most, if not all dusky grouse leave the allotment for off-site winter habitats.

As discussed in the Migratory Bird section above, this pasture hosts an abundant and rich migratory bird community and these traits likely extend to its small mammal component, including those species that rely on well developed shrubland understories, such as Merriam's shrew and long-tailed vole.

*Environmental Consequences of the Proposed Action:* Due to the distribution and character of the BLM administered parcels within the allotment it is likely that livestock use levels would remain relatively light on steeper slopes and among heavy deciduous shrub canopies (up to 70% of the BLM acreage). For example, about 20% of the allotment is comprised of steep slopes and/or pinyon-juniper woodlands—nearly 80% of these lands are BLM-administered surface. Big game forage conditions would remain relatively static on this acreage. The remaining acreage, especially low shrubland types within 0.5 mile of water, would probably experience substantive removal of all herbaceous material not protected by shrub crowns through the month of May. Expanded opportunity for herbaceous recovery through June and into July and only limited follow-up use by livestock in the fall would be expected to allow for strong redevelopment and increased availability of herbaceous forage for winter elk use.

Removal of heavy bunchgrass residuals tends to increase deer access to emerging spring growth and, consequently, increases the seasonal availability of succulent forage. In contrast to current grazing use, the preconditioning effects of dormant season use on perennial grasses for spring deer use would probably decline across much of the BLM's 315 acres of shrub-steppe communities, or about 12% of the allotment's total extent. This effect is considered minor from the landscape perspective.

Habitats best suited for dusky grouse nesting and early brood-rearing are often coincident with lands most desirable for grazing use. About 86% (159 acres) of BLM lands appearing most suitable for nesting occur on mild gradient shrublands within 0.5 mile of water developments. Those lands that would likely see the heaviest use (within 0.25 mile) are limited to about 23 acres (12% of that available on BLM). These habitats would continue to be subject to progressive reductions in herbaceous ground cover beginning in early May when nest site locations are being selected and clutches are being laid. By the end of the grazing use period and early days of incubation in late May, it is expected that most herbaceous cover unprotected by shrub crowns would be effectively removed. Thereafter (1 June), ground cover would be allowed to redevelop through the remaining 2-4 weeks of the growing season. Cover conditions would steadily improve through the later stages of incubation and into the early brood-rearing period when young (<5 weeks old) grouse are most vulnerable to predation and exposure. Grazing effects associated with nearly triple the number of cattle would be considerably more expansive than the present situation (e.g., areas beyond 0.25 mile of water). However, the proposed action may prove more compatible with grouse reproductive functions than current management, where maximum grazing influences are exerted through hatching and early brooding in late June with only limited opportunity for subsequent redevelopment of ground cover.

As discussed in the Migratory Bird section above, changes in grazing use is expected to exert greatest influence on those birds associated with sagebrush-dominated and mixed shrub communities within 0.25 mile of, and up to 0.5 mile from, water. It is roughly estimated that

increased use intensity would result in a 10-15% decline in potential breeding bird abundance associated with these habitats. Attributing modest increases in nest success and recruitment to substantial understory recovery through the nesting season, the ultimate reduction from current breeding bird reproductive capacity is expected to be 5% or less across 30% of BLM surface (about 315 acres). Nesting conditions on about 70% of the BLM-administered acreage (woodland and heavy deciduous browse cover) are expected to remain static and largely unaffected by livestock grazing. Collectively, the proposed action would not appreciably modify landscape level population metrics due to the limited extent of change and application.

Similar to the discussion for migratory birds, a more rapid, complete, and expansive removal of herbaceous growth during the early portion of the growing season may depress small mammal breeding density somewhat more than that current levels. However, with increased opportunity for more complete recovery of herbaceous growth during the growing season and substantial reduction in the subsequent removal of residual growth in the fall, reproductive efforts later in the summer and overwinter conditions for non-hibernating mammals may be substantially improved. Under current grazing regimes, it is roughly estimated that effective residual herbaceous cover (as forage and cover beneath the snow) is removed from nearly half the BLM-administered acreage in the allotment prior to the development of winter snowpacks. Under the proposed action, regrowth of herbaceous ground cover through June and into July should allow for redevelopment of these subnivian resources across a large part (about 90%) of these BLM parcels. It is expected that small mammals, particularly those less common species requiring well-developed understories, would benefit from improved mid to late summer and overwinter conditions that should yield increased quantities of seed and herbage. Due to the limited BLM acreage involved, this effect would not result in significant population level responses.

*Environmental Consequences of the No Grazing Alternative:* In the absence of livestock grazing, ground cover expression and the accumulation of residual growth would be expected to increase substantially. It is probable that most nongame birds and those small mammals that prefer highly developed ground cover would reach maximum levels of abundance and could, for example, result in 20-30% increases in the nesting density of migratory birds.

Conversely, benefits derived under a balanced livestock grazing strategy may be foregone (e.g., preconditioning of fall grass growth for deer, thinning of understory vegetation for grouse broods). In these more productive, higher elevation shrub-steppe communities and over time, the accumulation of herbaceous growth can reach levels that impede the movements of young grouse or access to emerging growth in spring by deer. Although elk can be expected to make continued use of these pastures in the fall and winter, it is unlikely that grazing use intensity would exceed incidental or light levels.

*Mitigation:* None.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Aquatic): In its present state, this allotment meets the land health standard for terrestrial wildlife. The proposed action would expand the extent and intensity of grazing effects during the growing season, but confine these influences to the month of May, thereby allowing for substantive recovery of ground cover prior to dormancy. Further, the

proposed action would involve little follow-up fall use and increase the herbaceous residual available through the winter and early spring. Overall, this alternative offers a number of beneficial wildlife-related aspects (e.g., elk, small mammals, perhaps dusky grouse) and holds its relatively detrimental effects to discountable levels (e.g., deer, migratory birds). Both the proposed action and no grazing alternative would not impede continued meeting of the land health standard.

## CULTURAL RESOURCES

*Affected Environment:* Range permit renewals are undertakings under Section 106 of the National Historic Preservation Act. Range improvements associated with the allotment (e.g., fences, spring improvements) are subject to compliance requirements under Section 106 and will undergo standard cultural resources inventory and evaluation procedures. During Section 106 review, a cultural resource assessment was completed for the Flag Creek Allotment (06816) on 3/12/2009 following 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 below. Copies of the cultural resource assessments are in the WRFO Cultural files.

|   |           |
|---|-----------|
| Acres (% of allotment) inventoried at a Class III level:            | 1 (<1%)   |
| Approximate acres (% of allotment) exempt from survey (slope >30%): | 488 (20%) |
| Number of known Cultural Resources in allotment:                    | 1         |
| Potential of Historic Properties:                                   | moderate  |

### Management Recommendations:

- 1) monitor and/or evaluate 5RB4422
- 2) Conduct field inventories of cattle concentration areas on BLM surface within the 10-year term of the permit.

One Class III (100% pedestrian) cultural resource inventory has been previously conducted within the allotment resulting in an incomplete coverage of 1 acre (Knox 1981, compliance dated 8/4/1981). Additionally, one cultural resource (5RB4422, historic dugout cabin, no assessment) has been identified on private surface likely within the allotment.

While the only identified cultural resource is historic, there is a moderate to high potential for prehistoric cultural resources on the allotment. The allotment features wooded hills and south-facing slopes near permanent water, which often contain open or sheltered camps, rock art, and other prehistoric sites in adjacent areas. Field inventory will be conducted in areas on BLM-owned surface where livestock concentrate, totaling approximately seven acres, within the ten-year period of the permit. Areas of livestock concentration have been identified by M. Kindall on 4/7/2009 and recorded in the Literature Review and Database Search Results for 08-252EA and the WRFO’s corporate GIS data.

If historic properties are located during 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 of the Proposed Action:* The direct impacts that occur where livestock concentrate 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 grazing may cause substantial ground disturbance and cause cumulative, long term, irreversible adverse effects to historic properties.

*Environmental Consequences of the No Grazing Alternative:* Detrimental impacts to cultural resources would cease under the No Grazing Alternative.

*Mitigation:* When the known historic property is field visited to assess the livestock grazing impacts, BLM will determine if grazing activities are adversely impacting the property. Mitigation measures, identified in consultation with the Colorado State Historic Preservation Officer (SHPO), will be implemented within the ten-year period of the permit.

The operator is responsible for informing all persons who are associated with the allotment activities that they will be subject to prosecution for knowingly disturbing archaeological sites, or for collecting artifacts on public lands. If artifacts are discovered during Allotment activities, the operator is to immediately stop activities that might further disturb such materials, and contact the authorized officer (AO). The operator and the authorized officer will consult and determine the best option for avoiding or mitigating archaeological site damage.

## **PALEONTOLOGY**

*Affected Environment:* The Flag Creek Allotment encompasses the following geologic formations, most of which are known to produce scientifically important fossils (Tweto 1979; Armstrong and Wolny 1989):

- Morrison, Curtis, Entrada, and Glen Canyon Formations—Potential fossil yield classification (PFYC) 4—Navajo Sandstone within portions of the Glen Canyon Group has produced Jurassic vertebrate and invertebrate ichnofossils in dune deposits, the Curtis Formation has produced belemnites and microfossils, and the Morrison Formation is renowned for its Jurassic mammals, birds, dinosaurs, reptiles, amphibians, fish, invertebrates (including snails and freshwater clams), and plants (including pines, low ferns, cycads, and ginkgos).
- Frontier Sandstone and Mowry Shale—PFYC 4—these strata have the potential to produce larger vertebrates, though typically contain fish, marine invertebrates (including *Inoceramus* clams, baculites, scaphites, forams, and radiolaria), freshwater invertebrates, various flora, and microfossils. Portions are likely to produce dinosaur bones, eggs, and ichnofossils, as well as Cretaceous mammals.

- Iles Formation—PFYC 3a—poorly preserved osteological remains, gar scales, invertebrates (pelecypods, baculites, and clams (*Inoceramus*), ammonites, oysters (*Ostrea*), and freshwater gastropods), wood and plant impressions, and bryozoans.
- Mancos Shale—PFYC 3a—In and near the Piceance Basin, this formation produces fish (fish scales, bones, and sharks’ teeth), invertebrates (ammonites, baculites, scaphites, bryozoans, brachiopoda, clams, oysters, belemnites), ichnological traces (crayfish burrows), pollen, and plant fragments. Elsewhere, Mancos shale is known to produce marine reptiles (mosasurs and plesiosaurs) and duckbill dinosaurs (hadrosaurids).
- Williams Fork Formation—PFYC 5—mammals (multituberculates, eutherians, and marsupials), dinosaurs, reptiles (turtles, crocodilians (including champosours), turtles, and possibly marine reptiles, etc.), fish (sharks, Amiidae, and Lepisosteidae), invertebrates (mollusks, gastropoda, and pelecypoda) and plants (including *Auracaria* and other conifers, *Debya* and *Ficus* leaf impressions, palms, wood, and possible flower or fruit capsules).
- Weber Sandstone and Maroon Formation—PFYC 2—not known to produce any scientifically significant fossils. Ichnofossils may exist in eolian dune field deposits.
- Quaternary Landslide Deposits—PFYC 3a—Pleistocene to Holocene (modern) bison, cattle, cervids, and rodents.
- Chinle and State Bridge Formations—PFYC 4—these formations have produced fossil brachiopoda and vertebrate or invertebrate ichnofossils.

*Environmental Consequences of the Proposed Action:* Direct impacts that may occur where livestock concentrate include trampling, chiseling and churning of site soils. There may be impacts from standing, leaning and rubbing against above ground features. Indirect impacts may include soil erosion, gulying and increased potential for unlawful collection and vandalism. In areas where fossil bed presence coincides with areas of livestock concentration, continued grazing may contribute to substantial ground disturbance and cause cumulative, long term, irreversible adverse effects to paleontological resources.

*Environmental Consequences of the No Grazing Alternative:* The No Grazing Alternative would result in no new impacts to paleontological resources.

*Mitigation:* The operator is responsible for informing all persons who are associated with the allotment activities that they will be subject to prosecution for knowingly disturbing paleontological localities or for collecting vertebrate fossils on public lands. If paleontological materials (fossils) are discovered during Allotment activities, the operator is to immediately stop activities that might further disturb such materials, and contact the authorized officer (AO). The operator and the authorized officer will consult and determine the best option for avoiding or mitigating paleontological locality damage.

Where future range improvements occur in areas mapped as PFYC 4 or 5 formations and on BLM-owned surface, BLM will require the survey of project areas and/or the monitoring of construction activities by an approved paleontologist.

**ELEMENTS NOT PRESENT OR NOT AFFECTED:**

No flood plains, prime and unique farmlands, exist within the area affected by the proposed action. There are also no Native American religious or environmental justice concerns associated with the proposed action.

**OTHER ELEMENTS:** For the following elements, only those brought forward for analysis will be addressed further.

| Non-Critical Element           | NA or Not Present | Applicable or Present, No Impact | Applicable & Present and Brought Forward for Analysis |
|--------------------------------|-------------------|----------------------------------|---|
| Visual Resources               |                   | X                                |   |
| Fire Management                |                   | X                                |   |
| Forest Management              |                   | X                                |   |
| Hydrology/Water Rights         |                   |                                  | X   |
| Realty Authorizations          | X                 |                                  |   |
| Recreation                     |                   | X                                |   |
| Access and Transportation      |                   | X                                |   |
| Geology and Minerals           | X                 |                                  |   |
| Wild Horses                    | X                 |                                  |   |
| Areas of Environmental Concern | X                 |                                  |   |
| Wilderness                     | X                 |                                  |   |
| Wild and Scenic Rivers         | X                 |                                  |   |
| Cadastral                      | X                 |                                  |   |
| Socio-Economics                |                   | X                                |   |
| Law Enforcement                |                   | X                                |   |

**HYDROLOGY AND WATER RIGHTS**

*Affected Environment:* The northern pasture contains an identified spring with BLM water right (# 96CW0337) and a range improvement project (#1838). This spring, named Seely Spring has had a range improvement project that included a spring box or collection gallery, some piping, two tanks (a rectangular and circular tank) and a small dam. It was last visited in 1983 and maintenance issues were noted, specifically the circular tank was rusting out the bottom.

*Environmental Consequences of Alternative A, Proposed Action:* Cattle can decrease the vegetation around springs and in some cases actually reduce the productivity of these springs due to creating direct physical disturbance to the soils around the spring source and reducing storage of water in vegetation and soil near the spring. Poorly maintained spring improvements can in some cases create additional impacts by concentrating groundwater on the surface.

*Environmental Consequences of Alternative B, No Grazing Alternative:* Impacts to water resources would not occur under this alternative.

*Mitigation:* Range improvement #1838 will be evaluated for maintenance needs. Part of this evaluation will include the determination of the need of the improvement for wildlife and/or livestock watering. If it is determined the improvement is no longer needed, the tanks and visible pipes will be removed from the site and any work performed that will leave the site in a stable and self sustaining condition. If it is determined that the improvement is valuable from a wildlife and/or grazing perspective, necessary maintenance will occur jointly with the BLM and the permittee, that will include the removal or replacement of compromised tanks or other infrastructure.

If impacts to any other springs due to cattle use from this lease, the operator will notify the BLM. If impacts are observed by the BLM and/or the operator, the permittee will work with the BLM to change grazing practices and/or develop range improvement projects to improve use and reduce impacts to contact springs.

## **RANGELAND MANAGEMENT**

*Affected Environment:* The Flag Creek allotment is made up of the North Pasture and the South Pasture which are further divided into Pastures A and B. Within the table below, acreage is broken down by land status and AUMs as outlined under the proposed action are shown:

| Flag Creek Allotment | Ownership   | Acres     | Livestock AUMs |
|----------------------|-------------|-----------|----------------|
| North Pasture        | BLM/Private | 334/1,130 | 62/196         |
| South Pasture        | BLM/Private | 748/1,392 | 155/174        |

The portion of federal range on the allotment is generally situated on the steeper sections of the landscape within both the with the major range site component being a shrub mixture of oak brush and mountain shrub species on various facing exposures with the addition of a pocket of Douglas fir in the South Pasture - Pasture A on a northern exposure of the main unnamed drainage located on the public lands. The understory mixtures is currently in a productive state and composed of a mid to late seral rating for most vegetation classes. Due to the use by livestock, the current weed management by the operator on the private lands, and the topography of the federal range this allotment would meet the Colorado Public Land Health Standards.

*Environmental Consequences of the Proposed Action:* The amount of cattle use is reduced proportionate to the amount of lands suitable for livestock distribution. A portion of the federal lands contain steep slopes which are generally not suited for concentration of, or heavy livestock use.

The proposed grazing management would provide for plant communities within the Flag Creek Allotment adequate opportunity for growth to maturity and seed production prior to follow up grazing that will be allowed by livestock starting October 1 or after the plants have gone into dormancy. Based on the proposed grazing use, the time frame only includes the initial early part of the growing season.

*Environmental Consequences of the No Grazing Alternative:* Under this alternative, livestock grazing use would not be permitted on public lands. Plant communities would experience an increase in percent ground cover. Forage components on the public lands within the allotment are in a minority position in relation to private lands. Grazing would likely continue on the private lands within the boundaries of the allotment, which would require fencing off of BLM lands. The additional amount of fencing would be cumbersome in respects to costs and resource impacts such as wildlife movement. The permittee would experience a negative economic impact as they are dependent upon public land grazing in their livestock operation. When permitted livestock are on public lands, the permittee can conserve forage on other lands to meet future livestock requirements. Livestock producers are dependent on this permitted grazing use on public lands to ensure the economic viability of his/her ranching operation.

*Mitigation:* The BLM will continue to make allotment inspections, as deemed necessary, to monitor cattle use to determine any potential adverse impacts to other resource values. If any concerns arise from cattle use, the BLM and the permittee will implement appropriate mitigation measures to ensure future rangeland health standards and guidelines will continue to be met.

**CUMULATIVE IMPACTS SUMMARY:** Cumulative impacts from the proposed action and other land uses would not exceed those discussed in the White River ROD/RMP and/or White River Resource Area Grazing Management Environmental Impact Statement (EIS).

#### **REFERENCES CITED:**

- Armstrong, Harley J. and David G. Wolny  
1989 *Paleontological Resources of Northwest Colorado: A Regional Analysis*. Museum of Western Colorado, Grand Junction, Colorado.
- Compass: Colorado's On-line Cultural Resource Database. Colorado Office of Archaeology & Historic Preservation. <http://www.coloradohistory-oahp.org/compass/>. Accessed 3/12/2009.
- Knox, Donna Jean  
1981 Exxon Hogback Core Drill Holes & associated Soil Test Pits. Gordon & Kranzush, Boulder, Colorado.
- Tweto, Ogden

1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

**PERSONS / AGENCIES CONSULTED:** A Public Notice of the NEPA action is posted on the White River Field Office Internet website at the Colorado BLM Home Page asking for public input on Grazing Permit renewals and the assessment of Public Land Health Standards within the White River Field Office area. The Grazing Advisory Board was notified of impending Grazing Permit renewals. Also, individual letters are sent to the lessees/permittees informing them that their permit is up for renewal and request any information they want included in or taken into consideration during the grazing permit renewal process. Meetings were held with the permittee to discuss and develop the proposed action with Lowell, LoAnn, and Lenny Klinglesmith, and BLM staff.

**INTERDISCIPLINARY REVIEW:**

| <b>Name</b>        | <b>Title</b>  | <b>Area of Responsibility</b>  |
|--------------------|---|--|
| Bob Lange          | Hydrologist   | Air Quality, Wastes (Hazardous or Solids), Water Quality (Surface and Ground), and Hydrology and Water Rights. |
| Maggie Marston     | Botanist  | Areas of Critical Environmental Concern, Threatened and Endangered Plant Species                               |
| Geoffrey Haymes    | Archeologist  | Cultural Resources, Paleontological Resources  |
| Melissa J. Kindall | Range Technician  | Invasive, Non-Native Species, Vegetation , Rangeland Management, Wild Horses                                   |
| Ed Hollowed        | Wildlife Biologist  | Migratory Birds, Threatened, Endangered and Sensitive Animal Species, Terrestrial and Aquatic Wildlife         |
| Jim Michels        | Outdoor Recreation Planner;<br>Fire/Fuels Technician;<br>Forester | Wilderness, Access and Transportation, Recreation, Fire Management, Forest Management, Visual Resources        |
| Paul Daggett       | Mining Engineer   | Geology and Minerals   |
| Linda Jones        | Realty Specialist   | Realty Authorizations  |

# **Finding of No Significant Impact/Decision Record (FONSI/DR)**

## **CO-110-2008-252-EA**

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE:** The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in 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.

**DECISION/RATIONALE:** It is my decision to issue a proposed decision in offering a grazing lease based on the grazing schedule outlined in the proposed action with the addition of the mitigation below.

### **MITIGATION MEASURES:**

1. Please contact the BLM – WRFO Hazardous Materials Coordinator at (970) 878-3800 and/or the Colorado Department of Public Health and Environment (CDPHE) through the 24-hour spill reporting line at 1 (877) 518-5608, if the permittee suspects the release of any chemical, oil, solid waste, petroleum product, or sewage is observed within the allotment.
2. Stocking rates should be reduced during periods of drought and/or during periods of drought recovery to improve upland health.
3. Immediate action should be taken to reduce trailing issues when they are identified. If accelerated erosion (rilling, gullyng etc.) is occurring due to trailing please contact the authorized officer to determine if a change in management or a rangeland development project should be constructed or the grazing approach altered to reduce impacts.
4. On public lands, application of herbicides must be under field supervision of an EPA certified pesticide applicator. Herbicides must be registered by the EPA and application proposals must be approved by the BLM prior to application.
5. Range improvement #1838 will be evaluated for maintenance needs. Part of this evaluation will include the determination of the need of the improvement for wildlife and/or livestock watering. If it is determined the improvement is no longer needed, the tanks and visible pipes will be removed from the site and any work preformed that will leave the site in a stable and self sustaining condition. If it is determined that the improvement is valuable from a wildlife and/or grazing perspective, necessary maintenance will occur jointly with the BLM and the permittee, that will include the removal or replacement of compromised tanks or other infrastructure.

6. If impacts to any other springs due to cattle use from this lease, the operator will notify the BLM. If impacts are observed by the BLM and/or the operator, the permittee will work with the BLM to change grazing practices and/or develop range improvement projects to improve use and reduce impacts to contact springs.
7. Negative impacts to paleontological resources occur when construction activities temporarily expose and then destroy buried fossil remains. Mitigation of such negative impacts generally consists of a comprehensive program including excavation monitoring, fossil salvage, preparation, curation, storage, and final report preparation. No range construction projects that have the potential to create disturbance will be permitted without paleontological clearance in advance. All animal supplements such as salt blocks and water tanks and feed should be placed away from outcrop formations.
8. When the known historic property is field visited to assess the livestock grazing impacts, BLM will determine if grazing activities are adversely impacting the property. Mitigation measures, identified in consultation with the Colorado State Historic Preservation Officer (SHPO), will be implemented within the ten-year period of the permit.
9. The Range program will work with the Cultural program to provide funding for monitoring of the NRHP eligible and potentially eligible sites on the allotment and, if necessary, provide funding for any site protection measures determined necessary, as a result of monitoring, to prevent further acute degradation of the sites.
10. Cultural resource inventory will be required for any range improvement projects determined necessary to manage the allotment including any new proposed mineral block locations.
11. The operator is responsible for informing all persons who are associated with the allotment activities that they will be subject to prosecution for knowingly disturbing archaeological sites, or for collecting artifacts on public lands. If artifacts are discovered during Allotment activities, the operator is to immediately stop activities that might further disturb such materials, and contact the authorized officer (AO). The operator and the authorized officer will consult and determine the best option for avoiding or mitigating archaeological site damage.
12. If historic or archaeological materials are uncovered by the permittee, the permittee shall immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the BLM.
13. The operator is responsible for informing all persons who are associated with the allotment activities that they will be subject to prosecution for knowingly disturbing paleontological localities or for collecting vertebrate fossils on public lands. If paleontological materials (fossils) are discovered during Allotment activities, the operator is to immediately stop activities that might further disturb such materials, and contact the authorized officer (AO). The operator and the authorized officer will consult and determine the best option for avoiding or mitigating paleontological locality damage.

14. Where future range improvements occur in areas mapped as potential fossil yield classification (PFYC) 4 or 5 formations and on BLM-owned surface, BLM will require the survey of project areas and/or the monitoring of construction activities by an approved paleontologist.
15. Range improvement #1838 will be evaluated for maintenance needs. Part of this evaluation will include the determination of the need of the improvement for wildlife and/or livestock watering. If it is determined the improvement is no longer needed, the tanks and visible pipes will be removed from the site and any work performed that will leave the site in a stable and self sustaining condition. If it is determined that the improvement is valuable from a wildlife and/or grazing perspective, necessary maintenance will occur jointly with the BLM and the permittee, that will include the removal or replacement of compromised tanks or other infrastructure.
16. If impacts to any other springs due to cattle use from this lease, the operator will notify the BLM. If impacts are observed by the BLM and/or the operator, the permittee will work with the BLM to change grazing practices and/or develop range improvement projects to improve use and reduce impacts to contact springs.
17. The BLM will continue to make allotment inspections, as deemed necessary, to monitor cattle use to determine any potential adverse impacts to other resource values. If any concerns arise from cattle use, the BLM and the permittee will implement appropriate mitigation measures to ensure future rangeland health standards and guidelines will continue to be met.

**COMPLIANCE/MONITORING:** Refer to Monitoring and Evaluation section within the proposed action of this document.

**NAME OF PREPARER:** Melissa J. Kindall

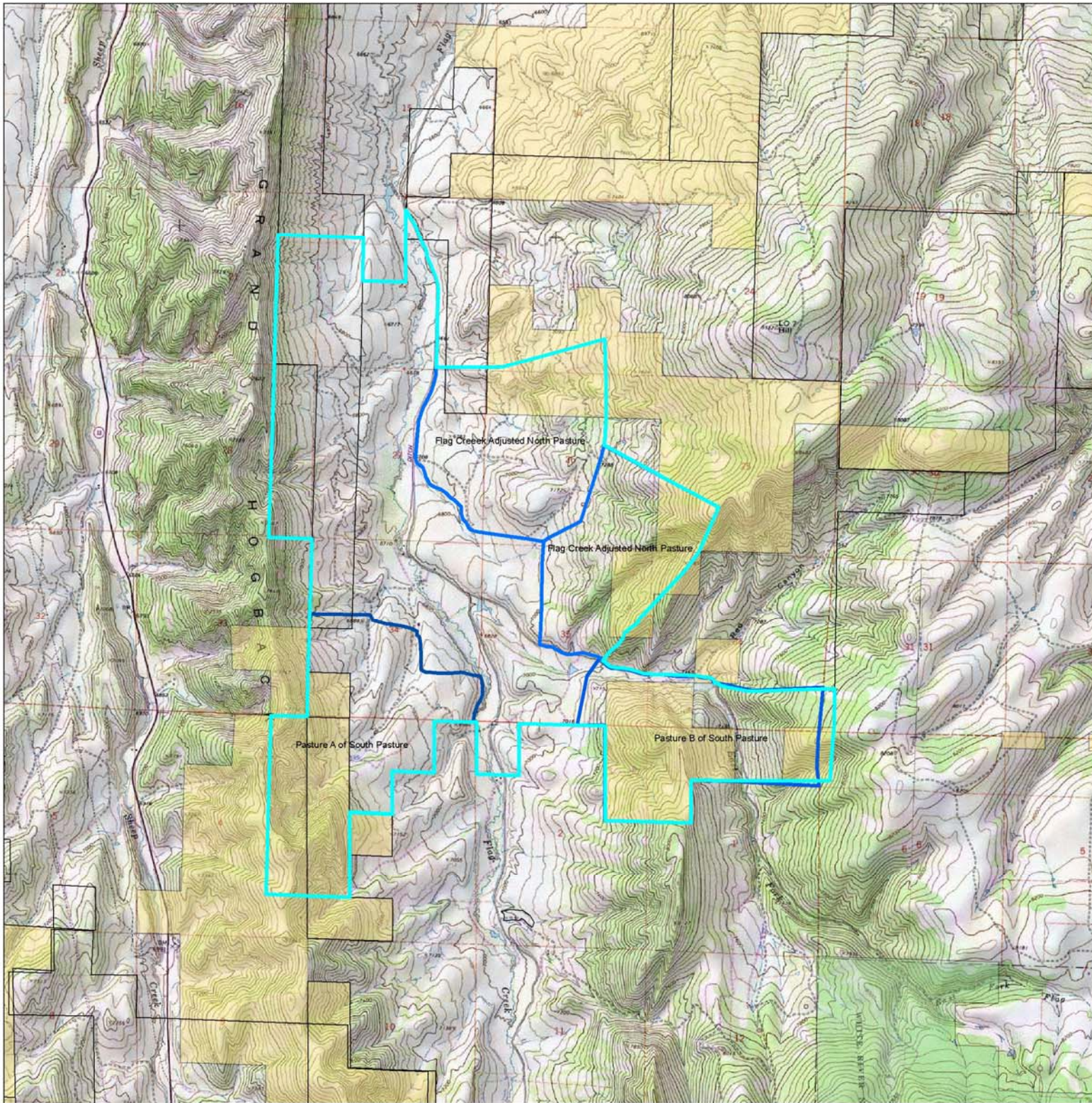
**NAME OF ENVIRONMENTAL COORDINATOR:** Caroline Hollowed

**SIGNATURE OF AUTHORIZED OFFICIAL:** Barbara J. Blackett  
Field Manager











**DATE SIGNED:** April 28, 2009

**ATTACHMENTS:** General location map of Proposed Action.

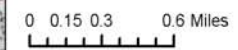
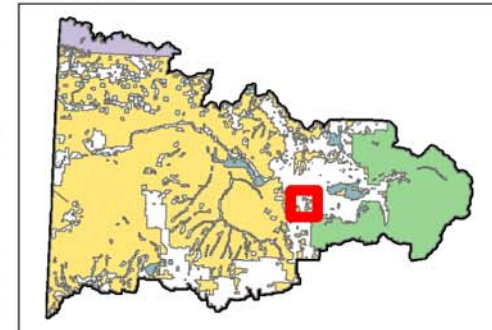
# CO-110-2008-252-EA Grazing Lease Renewal Flag Creek Allotment



## Legend

-  Projects: polygon
-  Adjusted North Pastures
-  Pasture B of South Pasture
-  BLM
-  CDW
-  County
-  FOR
-  NPS
-  PRI
-  STA

## Overview



Sources:  
BLM, USGS, CDOW, etc.



Disclaimer:  
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