

**United States Department of the Interior  
Bureau of Land Management**

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**Environmental Assessment  
DOI-BLM-CO-N050-2023-0034**

***Yellow Creek Grazing Permit Renewal***

**January 2024**

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

**BLM**



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# 1. INTRODUCTION

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## 1.1. Identifying Information

**Project Title:** Yellow Creek Grazing Permit Renewal

**Applicants:** KC Burke

**NEPA Document Number:** DOI-BLM-CO-N050-2023-0034

**Permit Number:** CO06030

**Location:** The Yellow Creek Allotment is in central Rio Blanco County (RBC), approximately 25 miles southwest of Meeker, Colorado.

## 1.2. General Setting

The allotment is in the area known as Piceance Basin and it lies generally between RBC Road 20 on the east, State Highway 64 on the north, Barcus Creek on the west and extends southward to Cathedral Bluffs. Elevation in the allotment starts at 5,900 feet along the eastern end of the allotment near Piceance Creek and extends upward to 8,467 feet at the South end along the Cathedral Bluffs. The total acres within the Yellow Creek Allotment are approximately 83,365. Of the 83,365 acres, there are roughly 63,250 acres of BLM, 5,215 acres of State and 14,900 acres of Private ownership. The plant communities on the allotment varies with sagebrush and pinyon habitats mixed with shale hills up to mountain brush and aspen at the highest reaches of the allotment.

## 1.3. Background

The Yellow Creek allotment is a spring through fall allotment and it has been managed by the same family since the early 1900's. The allotment is within the Piceance East Douglas Herd Management Area (PEDHMA) and as such, pasture fences are not available to use to hold livestock and instead the allotment has general use areas. Rotations are achieved by the use of water and turning water sources on and off, as well as active herding. Wild horses are a resource concern on the allotment as their numbers are significantly over objective and utilize significantly more forage than they are allotted in the White River RMP. The grazing permit expires in February of 2024 and is scheduled for renewal in order to fully process the permit, the operator has not requested any changes to the permit.

## 1.4. Purpose and Need for Action

The purpose of the action is to fully process the grazing permit on the Yellow Creek (CO06030) allotment in accordance with 43 CFR 4130.2(a) which states, "Grazing permits or leases shall be issued to qualified applicants to authorize use on the public lands and other lands under the administration of the Bureau of Land Management that are designated as available for livestock grazing through land use plans." The need for the action is to fully process the grazing permit as the allotment has not yet been analyzed under NEPA and to identify terms and conditions for

grazing use that would meet or make substantial progress towards meeting the Colorado Public Land Health Standards, the Fundamentals of Rangeland Health (43 CFR 4180), and resource objectives in the White River Resource Management Plan.

## 1.5. Decision to be Made

Based on the analysis contained in this EA, the BLM will decide whether to issue livestock grazing permits for the Yellow Creek Allotment, and if so, under what terms and conditions. The Field Manager is the responsible official who will decide one of the following:

- To approve the permittee's proposed livestock grazing schedules as submitted;
- To approve modified livestock grazing schedules;
- To analyze the effects of the proposed livestock grazing schedules in an EIS; or
- To deny the proposed livestock grazing schedules and not issue permits for livestock grazing.

## 1.6. Conformance with the Land Use Plan

The Proposed Action is subject to and is in conformance (43 CFR 1610.5) with the following land use plan:

**Land Use Plan:** White River Record of Decision and Approved Resource Management Plan (ROD/RMP)

**Date Approved:** July 1997

**Decision Language:** "Maintain or enhance a healthy rangeland vegetative composition and species diversity, capable of supplying forage at a sustained yield to meet the demand for livestock grazing." (page 2-22)

"A minimum rest requirement (period of no livestock grazing) will be developed for each allotment as integrated activity plans are developed. This period of rest is the minimum time required to restore plant vigor, improve watershed conditions, and improve rangeland conditions. Minimum rest periods will be incorporated into grazing systems during activity plan preparation." (page 2-23)

"An average of 50 percent of the annual above ground forage production will be reserved for maintenance of the plant's life cycle requirements, watershed protection, visual resource enhancement, and food and cover requirements of small game and nongame wildlife species. The remaining 50 percent of the forage base will be allocated among predominant grazing users." (page 2-11)

**Land Use Plan:** Northwest Colorado Greater Sage-Grouse Approved RMP Amendment

**Date Approved:** September 2015

**Decision Language:** "Objective RM-1: GRSG objectives and well-managed livestock operations are compatible because forage availability for livestock and hiding cover for GRSG are both dependent on healthy plant communities. Agreements with partners that promote sustainable GRSG populations concurrent with sustainable ranch operations offer long-term stability. In the context of sustainable range operations, manage the range program to: 1) maintain or enhance vigorous and productive plant communities; 2) maintain residual

herbaceous cover to reduce predation during GRSG nesting and early brood-rearing; 3) avoid direct adverse impacts to GRSG-associated range project infrastructure; and 4) employ grazing management strategies that avoid concentrating animals on key GRSG habitats during key seasons.” (page 2-9)

“MD RM-1: (ADH) Within ADH, incorporate GRSG habitat objectives and management considerations into all BLM grazing allotments through Allotment Management Plans.” (page 2-9)

“MD RM-2: (ADH) Work cooperatively on integrated ranch planning within GRSG habitat. Develop management strategies that are seamless with respect to actions on public and private lands within BLM grazing allotments.” (page 2-9)

“MD RM-4: (ADH) Conduct land health assessments that include (at a minimum) indicators and measurements of vegetation structure/condition/composition specific to achieving GRSG habitat objectives (Doherty et al. 2011). If local/state seasonal habitat objectives are not available, use GRSG habitat recommendations from Connelly et al. 2000 and Hagen et al. 2007.” (page 2-9)

“MD RM-5: (ADH) Develop specific objectives—through NEPA analysis conducted in accordance with the permit/lease renewal process—to conserve, enhance, or restore GRSG habitat. Base benchmarks on Ecological Site/Range Site Descriptions. When Ecological Site/Range Site Descriptions have not been developed, or are too general to serve adequately as benchmarks, identify and document local reference sites for areas of similar potential that exemplify achievement of GRSG habitat objectives and use these sites as the benchmark reference. Establish measurable objectives related to GRSG habitat from baseline monitoring data, ecological site descriptions, or land health assessments/evaluations, or other habitat and successional stage objectives.” (page 2-9)

“MD RM-6: (ADH) Manage for vegetation composition and structure consistent with ecological site potential and within the reference state subject to habitat objectives, including successional stages.” (page 2-9)

“MD RM-7: (ADH) Include terms and conditions on grazing permits and leases that address disruptive activities that affect GRSG and assure plant growth requirements are met and residual forage remains available for GRSG hiding cover.

Specify as necessary:

1. Season or timing of use
2. Numbers of livestock (include temporary non-use or livestock removal)
3. Distributions of livestock use
4. Intensity of use (utilization or stubble height objectives)
5. Kind of livestock (e.g., cattle, sheep, horse, llama, alpaca, and goat)
6. Class of livestock (e.g., yearlings versus cow/calf pairs)
7. Locations of bed grounds, sheep camps, trail routes, and the like” (page 2-9)

“MD RM-8: (ADH) Develop drought contingency plans at the appropriate landscape unit that provide for a consistent/appropriate BLM response. Plans shall establish policy for addressing ongoing drought and post-drought recovery for GRSG habitat objectives.” (page 2-11)

## 1.7. Management Category

Per the RMP, all allotments in the WRFO are placed in one of three management categories (improve, custodial, or maintain) that define the intensity of management. Allotments in the improve category are those where funding for range improvements or on-the-ground management efforts are most needed to improve the resources or to resolve serious resource conflicts. The custodial category allotments receive the lowest priority for public funding of range improvements. The Yellow Creek Allotment is in the Improve management category.

## 2. PUBLIC INVOLVEMENT

Internal scoping was initiated when the project was presented to the WRFO interdisciplinary team on 05/09/2023. This project was also posted on the WRFO’s on-line National Environmental Policy Act (NEPA) register on 1/29/2024.

## 3. PROPOSED ACTION AND ALTERNATIVES

### 3.1. Alternative A – Continuation of Current Management (No Action Alternative)

#### 3.1.1. Grazing Permit and Schedule

Alternative A proposes to issue a grazing permit with the same terms and conditions as the current permits. Grazing preference on the Yellow Creek allotment is for 2157 AUMs. On the Yellow Creek allotment, cattle begin grazing in the month of April at the lower end of the allotment. In May and June, there are additional cattle put on the allotment and the animals are moved up the allotment in a south-west manner towards the higher elevations and are moved back down in the late fall before being moved to private pastures for the winter. Without pasture fences within the allotment, grazing pastures are considered “use areas” that the permittee maintains as pasture analogues. These pasture analogues are achieved mainly by active herding and turning water sources on or off to keep livestock within these use areas.

**Table 1. Current Grazing Authorization Information**

Allotment Name	Allotment Number	Permit Number	Active AUMs <sup>1</sup>	Suspended AUMs
Yellow Creek	CO06302	0501405	2157	0

<sup>1</sup>Active AUMs refers to AUMs associated with “active use” (43 CFR 4100.0-5).

<sup>2</sup>Suspended AUMs are the result of previous reductions in permitted use (43 CFR 4110.3-2; White River RMP page 2-23 and 2-24) and are not currently available for livestock grazing.

**Table 2. Current Grazing Schedule for Active Use within the Yellow Creek Allotment**

Pasture Name	Livestock		Date		# Days Grazed	Total Active AUMs	% Public Land	BLM AUMs	Private AUMs	State AUMs
	Number	Kind	On	Off						

Rocky Ridge	100	C	4/15	5/15	31	102	100	102		
Barcus-Pinto Gulch	240	C	5/1	5/15	15	118	100	118		
Barcus-Pinto Gulch	340	C	5/16	6/30	46	514	100	514		
Box Elder	414	C	7/1	10/15	107	1725	31	451	169	1105
Barcus-Pinto Gulch	340	C	10/16	12/30	76	850	100	850		
Rocky Ridge	120	C	1/1	1/31	31	122	100	122		
<b>Totals:</b>					306	3431		2157	169	1105

<sup>1</sup> Note: Percent public land reflects the amount of forage produced on public land compared to the total amount of forage produced on all public and owned/controlled lands in the allotment.

### 3.1.2. Existing Range Improvements

Detailed information about existing range improvements, including current condition and future maintenance, can be found in Appendix B. In summary, there are 24 range improvements (including 18 water developments) within the Yellow Creek allotment.

## 3.2. Alternative B – Sage Grouse Alternative

### 3.2.1. Grazing Permit and Schedule

Alternative B proposes to issue a grazing permit with the same grazing schedule and AUM’s as has been previously authorized, with the addition of terms and conditions to ensure that habitat requirements for sage-grouse are met throughout the grazing year and to allow for management during drought years. Grazing preference on the Yellow Creek allotment would be for 2157 AUMs. Without pasture fences within the allotment, grazing pastures will be considered use areas that the permittee uses as pasture analogues. These pasture analogues are achieved mainly by turning water sources on or off to move livestock from one area to the next. With the high number of wild horses present in the Piceance East Douglas HMA, it is necessary to leave some man-made water sources turned on season-long in order to allow for sufficient water sources for the horses.

**Table 3. Proposed Grazing Authorization**

Allotment Name	Allotment Number	Permit Number	Active AUMs <sup>1</sup>	Suspended AUMs
Yellow Creek	CO06302	0501405	2157	0

<sup>1</sup>Active AUMs refers to AUMs associated with “active use” (43 CFR 4100.0-5).

<sup>2</sup>Suspended AUMs are the result of previous reductions in permitted use (43 CFR 4110.3-2; White River RMP page 2-23 and 2-24) and are not currently available for livestock grazing.

**Table 4. Proposed Grazing Schedule for Active Use within the Yellow Creek Allotment**

Pasture Name	Livestock		Date		# Days Grazed	Total Active AUMs	% Public Land	BLM AUMs	Private AUMs	State AUMs
	Number	Kind	On	Off						
Rocky Ridge	100	C	4/15	5/15	31	102	100	102		
Barcus-Pinto Gulch	240	C	5/1	5/15	15	118	100	118		

Barcus-Pinto Gulch	340	C	5/16	6/30	46	514	100	514		
Box Elder	414	C	7/1	10/15	75	1725	31	451	169	1105
Barcus-Pinto Gulch	340	C	10/16	12/30	76	850	100	850		
Rocky Ridge	120	C	1/1	1/31	31	122	100	122		
<b>Totals:</b>						3431		2157	169	1105

<sup>1</sup> Note: Percent public land reflects the amount of forage produced on public land compared to the total amount of forage produced on all public and owned/controlled lands in the allotment.

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### **3.2.2. Range Improvement Projects Necessary to Implement the Proposed Grazing Schedule**

There are no additional range improvements necessary to implement the proposed grazing schedule aside from the continued maintenance of existing range improvement projects.

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### **3.2.3. Thresholds and Responses or Response to Drought Conditions**

Under Alternative B, three thresholds would be established to ensure grazing use would be compatible with meeting sage-grouse habitat objectives. These three thresholds are related to drought, range readiness, and utilization on the allotment within designated PHMA. Detailed information can be found in Appendix C. In summary, drought conditions would be monitored and adjustment in livestock operations (such as pasture deferment, rest, modified livestock grazing rotation, or a change in livestock numbers) would be required to address impacts to vegetation due to drought conditions. Range readiness would use plant phenology assessments to determine if on-dates within an area need to be delayed. Utilization monitoring would be used to determine if it is necessary to move to another pasture or allotment in order to limit utilization of key forage areas to 40-60% percent as described in the 1997 White River ROD/RMP.

## **3.3. Terms and Conditions Applicable to Alternatives A and B**

Livestock grazing permits and leases must specify terms and conditions pursuant to 43 CFR 4130.3, 4130.3-1, and 4130.3-2. The Standard Terms and Conditions that are applied to every permit in Colorado are listed in Appendix D.

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### **3.3.1. Other Grazing Lease Terms and Conditions**

Livestock grazing permits may also contain site-specific terms and conditions “determined by the authorized officer to be appropriate to achieve management and resource conditions objectives”, to ensure conformance with Colorado Public Land Health Standards and Fundamentals of Rangeland Health, and to “assist in the orderly administration of the public rangelands” (43 CFR 4130.3, 4130.3-2). Appendix E lists additional terms and conditions that would apply to both Alternatives A and B. These additional conditions include limitations where to place supplements, utilization levels, annual operating plans, actual use records, and protections for cultural resources.



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### **3.3.2. Limits of Flexibility**

Permits may be provided minor flexibility during the grazing year from the approved grazing application that does not require prior approval by the authorized officer, however prior notification of the change(s) is required. This flexibility will be limited to on and off dates and the number of animals to adjust for changing climatic conditions, forage variability, and operational needs. For this permit, flexibility will be limited to 10 days either side of the on or off dates provided total days of use do not exceed 10 days from the schedule approved in the permit/lease. The number of animals may also be adjusted from the approved grazing application provided the total AUMs used does not exceed the AUMs scheduled. Annual flexibilities will be reflected in Actual Use forms submitted within two weeks from the end of the permitted grazing period.

Flexibilities that require approval by the BLM are adjustments made beyond the above criteria. BLM-approved flexibilities and/or changes to this plan may be required due to such factors as forage influences from grazing, drought, fire, and/or water availability.

### **3.4. Alternative C – No Livestock Grazing**

No livestock grazing would be authorized on the Yellow Creek allotment. The current/expiring grazing permits for these allotments would be cancelled/not be renewed. Existing range improvements would not be maintained or removed.

### **3.5. Alternatives Considered but Eliminated from Detailed Analysis**

#### **3.5.1. No Livestock Grazing and Removal of Range Improvement Projects**

Under this alternative, the BLM would not permit livestock grazing (passive restoration) and would provide for active restoration and removal of all range improvement projects (such as fences and water developments) in the allotment and reclamation of access routes to those facilities. The BLM eliminated this alternative from detailed analysis since the allotment is available for livestock grazing (per the 1997 White River RMP) and removal of all range improvement projects within the allotment would hinder the BLM's ability to manage livestock within the allotment. Range improvements are necessary for livestock grazing since fences serve to control livestock movements between pastures/allotments and water developments help to promote distribution of livestock (and associated forage consumption) within the pastures/allotments.

## **4. ISSUES**

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The CEQ Regulations state that environmental assessments (EA)s should “briefly provide sufficient evidence and analysis” for determining whether to prepare an environmental impact statement (EIS) or a finding of no significant impact (FONSI) (40 CFR 1501.5) and that agencies should only briefly discuss issues other than significant ones (40 CFR 1500.4(e)). While many issues may arise during scoping, not all of the issues raised warrant analysis in an EA. Issues will be analyzed if: 1) an analysis of the issue is necessary to make a reasoned choice between alternatives, or 2) if the issue is associated with a significant impact, or where analysis is

necessary to determine the significance of the impact. The following sections list the resources considered and the determination as to whether they require additional analysis.

## **4.1. Issues Analyzed**

The following issues are analyzed in detail in this EA (Section 5):

### **Soil Resources**

How would livestock grazing with the proposed grazing schedule affect soil stability and the soil's ability to meet Public Land Health Standard #1?

### **Vegetation**

How would the proposed livestock grazing affect vegetation communities and their ability to meet or to move toward achieving Public Land Health Standard #3 for vegetation communities?

### **Wildlife Habitat**

1. How would trailing and grazing affect forage and nesting cover for migratory birds and greater sage-grouse associated with grasslands, sagebrush, and open shrubland habitats?
2. How would grazing affect forage for big game (particularly mule deer)?

### **Wild Horses**

How would livestock grazing affect Wild Horse management?

### **Riparian**

How would trailing and grazing affect the vegetation and channel function of riparian systems and their ability to meet Public Land Health Standard #2?

### **Special Status Plant Species (SSPS)**

How would trampling and grazing affect Federally listed threatened plants (*Physaria congesta* Dudley Bluffs bladderpod and *Physaria obcordata* Dudley Bluffs twinpod)?

## **4.2. Issues Considered but Not Analyzed**

### **Cultural Resources**

1. How would livestock trailing and congregation areas within the allotment affect cultural resources?

Livestock grazing can adversely affect cultural sites through physical impacts including displacing, damaging, or destroying artifacts and features as a result of tramping or churning of site soils. Livestock can also impact sites by standing on, leaning, or rubbing against above-ground cultural features including historic structures and rock art (Osborn et al. 1987). Such impacts can also lead to new or exacerbated soil erosion that in turn exposes or displaces artifacts and places cultural resources at increased risk for potential unlawful collection. Such impacts to historic properties are at increased risk where livestock concentrate, including near water or salting sources as well as shaded areas where concentrated bedding may occur.

Under the combined Section 106 and NEPA review, and in accordance with CO-IM-2002-029, WRFO completed a Range Allotment Cultural Resource Assessment for the Yellow Creek GPR addressing potential cultural resource concerns for this allotment on 8/18/2023. The associated records search conducted for this allotment and the Class II inventory of its six known livestock concentration areas (Trout 2023) did not identify cultural resource concerns. Collectively, ~44.6% of the Yellow Creek grazing allotment has been surveyed at the Class III intensive pedestrian level.

As a result of these inventories, no historic properties are known to overlap with any known livestock concentration in any allotment. The majority of cultural resources that otherwise overlap with this allotment are either Not Eligible for the National Register of Historic Places (NRHP), and thereby do not require a revisit, or lack potential for being adversely affected. Sites considered at risk of livestock impacts will continue to be monitored as specified under the 2023 Range Allotment Cultural Resource Assessment, and any concerns addressed as identified, if any.

As such, there would be no adverse effects to known historic properties as a result of authorizing the proposed renewals, but ongoing monitoring of at-risk sites and further assessments should occur prior to renewal of the permit in the future. Additionally, any range improvement project with the potential to result in new surface disturbance should be individually analyzed and considered for additional cultural survey prior to authorization.

## **5. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

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### **5.1. Assumptions for Analysis**

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#### **5.1.1. Livestock Grazing**

For purposes of the analysis in this EA, the BLM assumed that the permittees would use their full preference (total active AUMs) each year of the 10-year permit and the 40-60% percent utilization standard described in the 1997 White River ROD/RMP would not be exceeded. However, the BLM acknowledges that the permittees may actually use less AUMs in a given year than the full permitted number for a variety of reasons and, for this reason, the actual utilization levels may be less than 50 percent.

The feeding of nutritional supplements may occur. Supplements (e.g., mineral blocks or granular minerals in tubs) are intended to supply necessary nutritional needs of livestock that are not provided by the available natural forage. Supplements are not intended to provide baseline nutritional needs nor to allow for a greater number of animals than what can be supported by the allocated portion of the natural forage.

#### **5.1.2. Wild Horse Populations**

The Yellow Creek allotment is within the Piceance-East Douglas Herd Management Area (PEDHMA). The current estimated population within the area of the HMA that overlaps the Yellow Creek grazing allotment is 166 wild horses, with the population expected to increase to

200 by the summer of 2024. The long-term objective of this area of the HMA is 85 wild horses. Management actions to help bring the population to objective include removals and fertility control, if these are implemented then the population would be in a sustainable forage balance for the long-term. If the population continues to increase, then by late summer 2024, the wild horse forage demand would be approximately 2,400 AUM's.

## **5.2. Issue #1 Public Land Health Standard #1-Upland Soils**

### ***5.2.1. How would livestock grazing with the proposed grazing schedule affect soil stability and the soil's ability to meet Public Land Health Standard 1?***

#### **Affected Environment**

Soil types within the Yellow Creek allotment are dominated by Rentsac channery loam, 5-50 percent slopes, followed by Torriorthents-Rock outcrop complex 15 to 90 percent slopes, Rentsac-Piceance complex 2 to 30 percent slopes, Glendive fine sandy loam, and Yamacall loam, 2 to 15 percent slopes. Assessments indicated that soil stability departure varied from none to slight to moderate from expected levels described in Ecological Site Reference Sheets.

Reduced soil stability was observed primarily on the Foothill Swale ecological sites. Assessment of land health showed a moderate departure from reference state in the Duck Creek assessment point and use area. This area receives significant use from both livestock and wild horses, livestock impacts occur during the period that livestock are in the use area while wild horses use the area on a year-round basis depending on climate conditions.

#### **Reasonably Foreseeable Environmental Trends and Planned Actions in the Area**

Climate change is likely to affect soils on the large scale. The 2015 BLM WRFO Oil and Gas Development Proposed RMP Amendment/Final EIS for Oil and Gas Development in the White River Field Office, Colorado; Chapter 4; Environmental Consequences (page 4-629) summarized potential predicted climate changes. Increased winter precipitations along with decreased spring and summer precipitation, increased prevalence, severity and duration of droughts, and increased fire frequency, size and intensity are all likely in the region.

Planned actions in the area include livestock and wild horse grazing, vegetation treatments, dispersed camping, hunting and recreation, and wildfires. All of these activities have the potential to affect soil resources in the Yellow Creek allotment. Grazing is the activity with the most potential to affect soil resources as improper grazing can lead to loss of soil resources through erosion. The other activities have potential to affect soils through erosion, vegetation cover removal, and human caused impacts from off-road vehicles.

#### **Effects of Alternative A (No Action Alternative)**

Current grazing use on the allotment is within appropriate stocking rates in consideration of the ecological sites. Some areas within the allotment receive higher use due to the lack of pasture fences to provide rotation. Areas of bare ground and of reduced soil stability are likely a result of congregated wild horses, which are currently significantly above the objective numbers, resulting in high overall usage in the allotment. Wild horses tend to stay in general areas throughout the year, opposed to livestock which get moved through the allotment by active herding. Livestock would be expected to have continued impacts such as trailing, trampling, and reduction of

vegetation, particularly in concentrated use areas. It would be expected that the allotment would continue to meet land health standards for soil resources.

### **Effects of Alternative B (Sage Grouse Alternative/Proposed Action)**

The impacts of Alternative B would be similar to the No Action Alternative, however during times that grazing management is altered due to the adaptive management, then soil resources would show additional benefits through reduced utilization on stabilizing deep rooted plants. The increased flexibility would allow for optimal livestock management and the ability to respond to drought. Livestock numbers and grazing timing would be maintained in a way that soil resources would not see excessive use from livestock. Impacts from wild horses would be the same and this alternative would not change the impacts received from wild horses due to trailing, trampling and areas of reduced vegetation vigor due to horse congregation. The additional terms and conditions with this alternative spell out specific utilization targets to make sure that the allotments are not over-utilized by livestock during drought years. This would help to ensure soil resources are protected by soil stabilizing perennial vegetation and with sufficient litter and vegetation cover present to reduce splash impact from rain. Soil resources would be expected to continue to meet land health standards under this alternative.

### **Effects of Alternative C (No Livestock Grazing Alternative)**

Under the no livestock grazing alternative, a removal of livestock grazing would increase litter on the sites to a moderate degree. Additionally, perennial vegetation species would be expected to show a moderate increase in cover. Soils would receive less use by cattle trailing and no hoof action from livestock. Grazing by wild horses would continue under this alternative and it would be expected that the cumulative impacts to soil from trailing and hoof action from wild horse grazing would be similar or greater than the impacts from that of the livestock. The wild horses would continue to graze on forage species and limit the amount of litter accumulation. Soils would be expected to meet land health standards, but some impacts of trailing and trampling would remain due to the wild horse and wildlife populations present on the allotment.

## **5.3. Issue #2 Public Land Health Standard #3-Vegetation**

### ***5.3.1. How would the proposed livestock grazing affect vegetation communities and their ability to move toward achieving Public Land Health Standard #3 for vegetation communities?***

#### **Affected Environment**

The geographic scope of this analysis includes all areas within the Yellow Creek grazing allotment. The temporal scope of this analysis is the duration of livestock grazing under each alternative.

The Yellow Creek allotment incorporates a significant variation of elevations, ecological sites and vegetation communities. The allotment contains a mix of low elevation sagebrush communities at the low elevations and pinyon-juniper woodlands throughout the allotment. The upper elevations contain higher elevation mountain brush communities.

**Table 6.** Predominant Ecological Sites and Plant Communities on the Yellow Creek Allotment

<b>Ecological Site</b>	<b>Plant Community Appearance</b>	<b>Predominant Plant Species in the Plant Community</b>
Pinyon-Juniper Woodland	Pinyon-Juniper Woodland	Pinyon pine, Utah juniper, mountain mahogany, antelope bitterbrush, serviceberry, Wyoming big sagebrush, bluebunch wheatgrass, western wheatgrass, prairie junegrass, Indian ricegrass, mutton grass
Rolling Loam	Sagebrush/Open Shrub Shrubland	Wyoming big sagebrush, winterfat, low rabbitbrush, horsebrush, antelope bitterbrush, western wheatgrass, Indian ricegrass, squirreltail, prairie junegrass, Sandberg bluegrass
Foothill Swale	Grass/Open Shrub Shrubland	Basin wildrye, western wheatgrass, slender wheatgrass, Indian ricegrass, Sandberg bluegrass, basin big sagebrush, fourwing saltbush, rubber rabbitbrush
Clayey Foothills	Grass/Open Shrub Shrubland	Western wheatgrass, bluebunch wheatgrass, Indian ricegrass, prairie junegrass, bottlebrush squirreltail, big sagebrush, black sagebrush, fourwing saltbush
Clayey Slopes	Grass/Open Shrub Shrubland	Western wheatgrass, Indian ricegrass, prairie junegrass, bottlebrush squirreltail, Sandberg bluegrass, big sagebrush, snowberry, rabbitbrush
Stony Foothills	Grass/Open Shrub Shrubland	Bluebunch wheatgrass, western wheatgrass, needle and thread, prairie junegrass, Indian ricegrass, fringed sage, Wyoming big sagebrush, black sage, serviceberry, pinyon and juniper

**Reasonably Foreseeable Environmental Trends and Planned Actions in the Area**

Climate change is likely to affect soils on the large scale. The 2015 BLM WRFO Oil and Gas Development Proposed RMP Amendment/Final EIS for Oil and Gas Development in the White River Field Office, Colorado; Chapter 4; Environmental Consequences (page 4-629) summarized potential predicted climate changes. Increased winter precipitation along with decreased spring and summer precipitation, increased prevalence, severity and duration of droughts, and increased fire frequency, size and intensity are all likely in the region.

Planned actions in the area include livestock and wild horse grazing, vegetation treatments, dispersed camping, hunting and recreation, and wildfires. All of these activities have the potential to affect vegetation resources in the Yellow Creek allotment. Grazing is the activity with the most potential to affect vegetation resources as improper grazing can lead to loss of vegetation resources through excessive utilization.

**Effects of Alternative A (No Action Alternative)**

Under this alternative, cattle would use the allotment between April and January on a yearly basis, with most of the usage occurring between May and December. The use areas in the grazing schedule would remain the same as previously authorized. The forage allocation for livestock is 2157 AUM’s. This moderately stocked grazing regime would allow for residual plant material in a sufficient amount for rangeland plants to meet their needs. Rotation of cattle

throughout the allotment allows for rest to occur within use areas and to allow for plants to reproduce and to store carbon in their roots.

Impacts from cattle grazing would be forage removal from grazing and from trampling and trailing related to hoof impacts. Moderate stocking rates reduce the density of animals on the landscape. Under a moderate stocking regime, the allotment would have capability to move towards meeting land health as perennial species reproduce and set seed.

### **Effects of Alternative B (Sage Grouse Alternative/Proposed Action)**

Alternative B would have impacts similar to Alternative A. The grazing schedule is the same as Alternative A, with livestock use areas rotating throughout the allotment seasonally. The additional terms and conditions related to utilization and monitoring would allow for monitoring during turnout to ensure that grass species have completed sufficient growth for them to be grazed during the phenology assessment. In drought years, this alternative would ensure that usage levels remain appropriate for the conditions. There would be movement towards improvement in vegetation health with the removal of wild horses to AML, which would provide proper stocking rates across the allotment. The success of this alternative depends on wild horses being managed within the AML for the PEDHMA.

The additional terms and conditions would allow for more monitoring during turnout to ensure that grass species have completed sufficient growth for them to be grazed through the phenology assessment. In drought years, this alternative would ensure that usage levels remain appropriate for the conditions and would help to prevent over-stocking for the conditions, which helps to maintain healthy plant communities.

Additionally, the terms and conditions spell out specific utilization targets to make sure that the allotments are not over-utilized, in particular during drought years. Key area monitoring for utilization would ensure sufficient residual cover for wildlife and for the life cycle needs of the forage species.

### **Effects of Alternative C (No Livestock Grazing Alternative)**

Under the no livestock grazing alternative, a removal of livestock grazing on the allotment would allow for the vegetation to receive less utilization and for more opportunity to complete life cycles and to replenish root reserves. In the short-term, there would be additional surface litter allowing for more soil moisture to be retained and more organic matter to be incorporated in the soils. Areas that are not accessible to livestock or horses due to topography or other factors would not be changed. Areas accessible to livestock and horses with reduced understories would show some improvement due to the reduced utilization. There would still be year-round utilization from the wild horses present within the PEHMA. There would likely be improvements to the vegetation and increased density and vigor, though the long-term recovery of the vegetation communities would depend on the management of wild horses in the PEHMA.

## **5.4. Issue #3-Public Land Health Standard #2-Riparian**

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#### **5.4.1. How would trailing and grazing affect the vegetation and channel function of riparian systems and their ability to meet Public Land Health Standard 2?**

##### **Affected Environment**

The main perennial riparian systems in the Yellow Creek allotment are Yellow Creek, Corral Gulch and Box Elder Gulch. Duck Creek is another major system in the allotment, though it is not considered perennial in the reaches within the allotment. The Yellow Creek system is a lower elevation system with areas of channelization and a narrow band of riparian obligate and facultative vegetation, with upland vegetation on the upper banks. Corral Gulch and Box Elder Gulch are higher in elevation and similar in characteristics to each other, with both systems having a moderately wide channel bottom with riparian vegetation and surrounded by shale areas and mixed browse species on the banks. These systems were evaluated using the Properly Functioning Condition (PFC) Assessment.

Yellow Creek and Box Elder Gulch were assessed in 2019. The two reaches of Box Elder Gulch in the Yellow Creek Allotment were rated as Functional at Risk. These reaches had a static trend from the previous assessment in 2011 and did not show significant changes in the system. The reaches of Yellow Creek in the allotment were rated as Functional at risk. Reach 2 had a downward trend, influenced by ungulate usage. Reach 3 did not have an apparent trend.

Corral Gulch was assessed in 2022. It was rated functional at risk from continued disturbance from horses and livestock.

##### **Reasonably Foreseeable Environmental Trends and Planned Actions in the Area**

Climate change is mostly likely to affect riparian plant communities on a large scale. The 2015 BLM WRFO Oil and Gas Development Proposed RMP Amendment/Final EIS for Oil and Gas Development in the White River Field Office summarized potential predicted climate changes. Increased winter precipitation along with decreased spring and summer precipitation, increased prevalence, severity and duration of droughts, and increased fire frequency, size and intensity are all likely in the region. These trends have the potential to impact riparian communities in the Yellow Creek allotment.

Planned or proposed actions in the area include continued livestock grazing, wild horse population management to achieve long-term population objectives, vegetation treatments, prescribed fires, and oil and gas development. Actions outside of management control include wildfires, dispersed camping, hunting and other outdoor recreation.

##### **Effects of Alternative A (No Action Alternative)**

With Alternative A, scheduled livestock use on the allotment would remain the same as previously authorized. The Yellow Creek drainage would be open to use for livestock between 5/1 and 6/30 and the Box Elder and Corral Gulch would be open to use between 7/1 and 10/15. Continuation of current management would not be expected to result in significant changes to the riparian communities in the Yellow Creek allotment. They would be expected to maintain present functionality with ongoing impacts to the riparian system still occurring. Some impacts to vegetation and bank stability associated with livestock grazing such as trailing, trampling and vegetation would be expected. Given that wild horses are not actively herded, they tend to spend



time around water sources and their use in these drainages is season-long opposed to the rotation of livestock and shorter duration that they are in each use area. This would limit potential improvements to the riparian systems due to impacts received throughout the grazing year.

### **Effects of Alternative B (Sage Grouse Alternative/Proposed Action)**

With Alternative B, scheduled livestock use on the allotment would remain the same as previously authorized, with additional terms and conditions applying to usage during drought conditions. The Yellow Creek drainage would be open to use for livestock between 5/1 and 6/30 and the Box Elder and Corral Gulch would be open to use between 7/1 and 10/15. These pasture analogues provide an idea of where the most usage will be occurring. This alternative includes the terms and conditions which include drought management and range readiness, during dry years there would be management to ensure rangelands are not negatively impacted. These terms and conditions allow for active management should significant drought occur during a grazing year and would provide for reduced usage during drought. This would benefit riparian areas and reduce livestock impacts by reducing the livestock impacts during these times. Livestock impacts to riparian areas would include trailing, trampling and vegetation consumption. Wild horse impacts to riparian areas remain significant in light of the excess wild horses in the PEDHMA. With reduced wild horse numbers, it would be expected that riparian areas will maintain function and show improvement with a reduction of season-long wild horse usage and continued rotational use from livestock.

### **Effects of Alternative C (No Livestock Grazing Alternative)**

Removal of livestock would alleviate some grazing pressure on riparian plants and completely remove the riparian impacts from livestock. The impacts from livestock such as trailing, grazing, trampling from their habits would be eliminate. There would be a moderate increase of the vigor of woody and herbaceous riparian species. Increased density of riparian plants and less trailing impacts to channels and streambanks would be expected, leading to improved bank stability and decreased erosion. The removal of all livestock would allow some degraded riparian areas to show partial recovery, complete recovery of the riparian areas would be limited by wild horse numbers. At the current numbers of wild horses, riparian areas that wild horses congregate in would not show significant recovery and would still be impacted by trailing and grazing impacts to a significant degree.

## **5.5. Issue #4-Public Land Health Standard #3/4-Wildlife**

### ***5.5.1. How would trailing and grazing affect forage and nesting cover for migratory birds and greater sage grouse associated with grasslands, sagebrush, and open shrubland habitats?***

#### **Affected Environment**

##### **Migratory Birds**

The allotment's diverse vegetative communities provide nesting habitat for numerous migratory birds during the breeding period (May 15 – July 15), as well as other nongame animal species. Birds of conservation concern that are known to or likely to occur in the allotment include Brewer's Sparrow, Pinyon Jay, Broad-tailed Hummingbird, Long-eared Owl, Clark's Nutcracker, Cassin's Finch, and Virginia's Warbler. In general, diverse and productive plant

communities provide the appropriate cover and forage resources for most migratory bird species to complete reproductive (breeding and brood-rearing) functions.

In general, the higher elevation pinyon-juniper (woodland) and mountain shrub communities (~68 percent of BLM-managed lands in the allotment) that are not heavily influenced by livestock grazing, provide adequate nesting substrate, forage, and cover resources for game birds (Blue grouse), migratory birds, and raptors. Birds associated with riparian communities (~24 acres) are expected to be negatively impacted (e.g., suppressed nest densities, reductions in number of species) due to degraded habitat conditions associated with livestock and wild horse use. Bird species more closely associated with aspen woodlands (~0.3 percent of BLM-managed lands in the allotment) have likely experienced a reduction in local populations due to widespread aspen loss/die-off.

Migratory birds associated with lower elevation sagebrush, and open shrubland or grassland communities (typically found in Foothill Swale ecological sites) have likely been negatively influenced by unfavorable shifts in plant community composition (e.g., loss of native perennial bunchgrasses and increases in invasive annuals such as cheatgrass). Nongame bird species that are more reliant on structurally diverse understories have likely been negatively influenced by the overall decline in native perennial bunchgrasses and forbs throughout the allotment over the past two decades. Birds associated with riparian communities (~24 acres) are expected to be negatively impacted (e.g., suppressed nest densities, reductions in number of species) due to degraded habitat conditions associated with prolonged and excessive livestock and wild horse use. Although a minor component of the total allotment (< one percent), riparian areas provide some of the most important habitat (e.g., water, forage, cover, travel corridors) for an array of wildlife species (see Section 5.3).

### **Greater Sage Grouse**

Special status animal species that are known to occur in the allotment include greater sage-grouse (GRSG) and Brewer's sparrow, both sagebrush obligate species. Greater sage-grouse generally require ecosystems with vast expanses of healthy sagebrush, and a diverse herbaceous understory comprised of native perennial grasses and forbs that provide hiding cover and forage resources. The allotment is in the Parachute-Piceance-Roan (PPR) greater sage-grouse population. This is a small, isolated population with atypical habitat. Due to topographical constraints, habitat is naturally fragmented, with suitable habitat (i.e., sagebrush communities) occurring almost exclusively on the ridge tops in a linear formation. Slopes greater than 15 - 20 percent and valley bottoms are generally avoided by grouse. Approximately 4,923 acres of federally managed GRSG priority habitat management areas (PHMA) and 7,326 acres of general habitat management areas (GHMA) occur within the allotment. PHMA are areas that have been identified as having the highest conservation value to maintaining sustainable greater sage-grouse populations, such as nesting and brood-rearing habitat. GHMA are those areas outside of PHMA. BLM managed PHMA consists of a 117-acre parcel surrounded by privately owned land. Approximately 1,450 acres of GHMA is administered by the BLM. The majority of GHMA is dominated by mixed mountain shrub (serviceberry, snowberry, and oak) or encroaching pinyon and juniper, and likely does not consistently support large numbers of birds. There are no active leks in the allotment, however six active leks are located within four miles of the allotment boundary.

The geographic scope of this analysis includes all vegetation communities that support big game and nongame animal species in the Yellow Creek allotment.

### **Reasonably Foreseeable Environmental Trends and Planned Actions in the Area**

Climate change is likely to affect soils on the large scale. The 2015 BLM WRFO Oil and Gas Development Proposed RMP Amendment/Final EIS for Oil and Gas Development in the White River Field Office, Colorado; Chapter 4; Environmental Consequences (page 4-629) summarized potential predicted climate changes. Increased winter precipitations along with decreased spring and summer precipitation, increased prevalence, severity and duration of droughts, and increased fire frequency, size and intensity are all likely in the region.

Planned actions in the area include livestock grazing, wild horse grazing, vegetation treatments, dispersed camping, hunting and recreation, and wildfires. All of these activities have the potential to affect sage grouse and migratory birds in the Yellow Creek allotment.

### **Effects of Alternative A (No Action Alternative)**

#### **Migratory Birds**

The moderate stocking rate of livestock on the Yellow Creek allotment (1 AUM/29 acres) will leave adequate diversity and distribution of native perennial bunch grasses, rhizomatous grasses, and forbs as a source of cover and forage for migratory birds. Under the current grazing schedule, every pasture within the Yellow Creek allotment is grazed during at least a portion of the migratory bird nesting season (May 1 – July 15). Livestock grazing during the nesting season does have the potential to lead to nest destruction or failure from trampling disturbance to nesting birds due to livestock presence.

#### **Greater Sage Grouse**

All of the grouse habitat located within the Yellow Creek allotment is located within the Box-Elder use area. Use in this use area is scheduled from 7/1 to 10/15 every year. The nesting season for grouse is generally between 3/1 and 7/15 so there will only be 15 days of overlap at the end of nesting season with livestock use and grouse nesting in the Yellow Creek allotment.

BLM managed PHMA is a small portion of the Yellow Creek allotment, thus limiting influential management. GRSG habitat suitability on BLM managed GHMA within the Yellow Creek allotment is largely limited by ecological site potential. Much of the mapped GRSG habitat on BLM administered land is dominated by taller stature deciduous mountain shrub species such as serviceberry, snowberry and Gambel oak. This typically detracts from overall breeding and brood-rearing site suitability. Livestock grazing is not thought to be influencing habitat suitability for GRSG on BLM administered lands in the allotment.

### **Effects of Alternative B (Sage Grouse Alternative/Proposed Action)**

#### **Migratory Birds**

Alternative B has the same grazing schedule and authorized AUM's as alternative A. The moderate stocking rate for this grazing schedule will leave adequate forage and nesting cover for migratory birds. Livestock grazing during the migratory bird nesting season (May 1 – July 15) will have the same impacts as alternative A.

The additional terms and conditions for drought response, range readiness, and utilization rates proposed in alternative B will improve range conditions and habitat for migratory birds with successful implementation. The proposed terms and conditions provide a framework for adaptive management from year to year based on current conditions on the ground.

### **Greater Sage Grouse**

Impacts to sage grouse under Alternative B will be the same as what are described in Alternative A. The additional terms and conditions for drought response, range readiness, and utilization thresholds will aid in the maintenance and improvement of sage grouse habitat within the Yellow Creek allotment, however since habitat suitability is limited by ecological site potential livestock grazing is not creating a large influence on habitat suitability.

### **Effects of Alternative C (No Livestock Grazing Alternative)**

It is suspected that removal of livestock would substantially increase herbaceous expression across much of the permit areas bottomlands that are currently not meeting or marginally meeting land health standards. Considerable improvements in perennial composition, distribution, and vigor would be anticipated. Non-game bird populations would be expected to respond favorably to increasing cover and forage. Improvements would be most evident in areas that are favored by livestock such as riparian communities, bottomlands and areas with more gentle-sloped terrain. In those areas of the allotment where sage-grouse occur, increases in height and density of native perennial bunchgrasses and forbs would be expected.

## **5.6. Issue #5-Public Land Health Standard #3-Wildlife**

### ***5.6.1. How would grazing affect forage for big game (particularly mule deer)?***

#### **Affected Environment**

The allotment, which encompasses a wide variety of elevation ranges and habitat types, supports both elk and mule deer year-round. The lower elevation use areas are encompassed by elk and mule deer general winter and severe winter ranges (SWR, namely for mule deer). SWR, by definition, supports 90% of the herd during the worst three winters of 10 and are classified by the Colorado Parks and Wildlife (CPW) as critical habitat (i.e., ranges that involves limited resources, the loss of which prompt reductions in population). There is approximately 29,870 acres in the Yellow Creek allotment classified as SWR. These areas generally experience the most use from January through April. Forage quality and abundance is important on winter ranges as this is typically when energy demands are highest. The higher elevation sagebrush, Douglas fir, aspen, and aspen/mixed conifer stands support big game throughout the summer (typically May – October). High quality forage is important on summer ranges to ensure recovery from winter weight loss, support reproductive activities (birth, lactation, and calf-rearing) and improve body condition prior to winter. Big game use throughout the winter and summer ranges is primarily during seasonal transitions during the spring months of April/May and the fall/early winter months of October through January. Herbaceous vegetation forms the primary forage base for big game in the spring through early fall months, with woody forages used increasingly through the fall and winter months by mule deer. Although a minor part of the allotment, riparian areas are of high importance. Due to the high diversity in the plant community, these areas generally provide forage year-round. In general, diverse plant

communities comprised of high quality native perennial grasses and forbs are most beneficial for big game species.

The allotment is in the Yellow Creek Elk Herd Data Analysis Unit (DAU) E-10, which encompasses roughly 2.4 million acres of public and private land. Federally managed lands within the Yellow Creek allotment comprise roughly 2.8 percent of the land base in DAU E-10. The current population estimate for this herd is approximately 12,000 animals, which is slightly above the 8,500 – 10,500 population objective. Issues of concern identified by CPW for this DAU included decline in habitat quality, drought, large-scale wildfires, competition with wild horses, oil and gas development, recreation, and disease. The allotment is in the White River Deer Herd DAU D-7. Federally managed lands within the Yellow Creek allotment comprise approximately 2.6 percent of the land base in DAU D-7. The most recent population estimate (2019) for this herd is approximately 36,000 animals, which is slightly above the 25,000 – 35,000 population objective. Issues of concern identified for this deer herd included poor range conditions (particularly on winter ranges), drought, large-scale wildfires, and disease.

Issues of concern identified by CPW for this deer herd included poor range conditions (particularly on winter ranges), drought, large-scale wildfires, and disease. Unfavorable shifts in plant community composition, including strong reductions in native perennial bunchgrasses, loss of species diversity, increases in annual grasses and forbs, and mortality and decadence in woody browse have reduced forage quality and availability on these winter ranges. This due to long-term drought but is likely exacerbated by concentrated livestock and wild horse use, which impairs native plants reproductive capabilities and decreases the ability to compete with non-native annuals.

Recent monitoring data shows a slight to moderate departure from expected conditions in the mid-to-upper elevation vegetation communities that generally support big game during the summer. Deciduous browse is extensive, although in some areas has become overly mature and less palatable. Recent vegetation treatments on 1,535 acres have improved forage quality (increased palatability of woody browse and allow for greater expression of perennial grasses and forbs). Herbaceous cover is generally intact and representative of higher elevation vegetation communities. However, many sites have exhibited moderate shifts in expected condition of structural functional groups, with the most notable being a decline in perennial bunchgrass cover and an increase in tree cover. Noxious weeds (e.g., houndstongue) and annual species are not pervasive, but rather occur in small, isolated patches.

Lower elevation communities that support big game (particularly mule deer) during the winter months have seen deleterious shifts in plant community composition (~4,069 acres of Foothill Swale sites). Of the 4,069 acres of Foothill Swale Sites, 950 acres are located within SWR in the Yellow Creek allotment. Unfavorable shifts in plant community composition, including strong reductions in native perennial bunchgrasses, loss of species diversity, increases in annual grasses and forbs, and mortality and decadence in woody browse have reduced forage quality and availability on these winter ranges. This is in part due to long-term drought but is likely exacerbated by concentrated livestock and wild horse use, which impairs native plants reproductive capabilities and decreases the ability to compete with non-native annuals.

## **Reasonably Foreseeable Environmental Trends and Planned Actions in the Area**

Climate change is likely to affect soils on the large scale. The 2015 BLM WRFO Oil and Gas Development Proposed RMP Amendment/Final EIS for Oil and Gas Development in the White River Field Office, Colorado; Chapter 4; Environmental Consequences (page 4-629) summarized potential predicted climate changes. Increased winter precipitations along with decreased spring and summer precipitation, increased prevalence, severity and duration of droughts, and increased fire frequency, size and intensity are all likely in the region.

Planned actions in the area include livestock and wild horse grazing, vegetation treatments, dispersed camping, hunting and recreation, and wildfires. All of these activities have the potential to affect big game habitat and movements in the Yellow Creek allotment.

### **Effects of Alternative A (No Action Alternative)**

Under this alternative, cattle would use the allotment between April and January on a yearly basis, with a majority of the usage occurring between May and December. The use areas in the grazing schedule would remain the same as previously authorized. The forage allocation for livestock is 2157 AUM's (~1 AUM/29 acres). This moderate stocking rate will leave adequate amounts of forage for big game species within the allotment. Actively moving livestock through the use areas will be an important aspect of management in this allotment to prevent overuse on specific areas. Without pasture fences, there is the potential for livestock to remain in use areas for long periods of time which could lead to negatively impacting plant community composition and overall decreases in productivity.

Other impacts from cattle grazing would be potential displacement of wildlife from portions of the allotment where livestock are present as well as direct competition for forage and water in the allotment, however wildlife and cattle have grazed together within the allotment for many years and these impacts are expected to be nominal.

### **Effects of Alternative B (Sage Grouse Alternative/Proposed Action)**

Alternative B would have impacts like Alternative A. The grazing schedule is the same as Alternative A, with livestock use areas rotating throughout the allotment seasonally. The additional terms and conditions related to range readiness, utilization and drought will provide a framework for livestock management ensure range conditions are maintained in areas that are meeting land health and improve in areas that are not meeting land health standards.

With the light stocking rates (1 AUM/29 acres), there will be adequate residual forage for big game species across the allotment. Livestock movement through the use areas using water and active herding will be important to ensure use areas are not over-used each year.

### **Effects of Alternative C (No Livestock Grazing Alternative)**

It is suspected that removal of livestock would substantially increase herbaceous expression across much of the permit areas bottomlands that are currently not meeting or marginally meeting land health standards. Considerable improvements in perennial composition, distribution, and vigor would be anticipated. Improvements would be most evident in areas that are favored by livestock such as riparian communities, bottomlands and areas with more gentle-sloped terrain. Livestock removal would also be expected to reduce use of heavy bunchgrass top

growth, which would tend to slightly reduce big game access to grass growth in the spring, particularly by deer.

## **5.7. Issue #7-WILD HORSE MANAGEMENT**

### ***5.7.1. How would proposed grazing affect Wild Horse Management?***

#### **Affected Environment**

Wild horses on public lands are protected under the Wild Free Roaming Horses and Burros Act of 1971 and are managed by the BLM, WRFO. WRFO's RMP/ROD (BLM 1997) includes an implementation plan for wild horse management. The BLM manages wild horses to provide a healthy, viable breeding population with a diverse age structure.

WRFO's Piceance-East Douglas Herd Management Area (HMA) consists of approximately 190,130 acres. The Yellow Creek allotment includes approximately 63,250 acres of BLM managed lands and is located within the Piceance portion of the HMA, this accounts for roughly 33 percent of the total HMA area.

Vegetation within the HMA consists of pinyon-juniper woodlands interspersed with sagebrush and greasewood. Wild horses rely on these woodlands during the summer months for shade and protection of newborn foals from predation and during the winter months for cover during severe winter storms. Over 90 percent of wild horse diet is comprised of grasses with shrubs becoming more important during periods of heavy snowfall when horses can less readily paw through snow cover to the grass below. Water intake is supplied by springs, man-made water developments, stock ponds, and perennial streams, as well as areas of pooled water from rain and snow runoff.

The long-term management range for the portion of the HMA that overlaps the Yellow Creek allotment is 85 wild horses. The herd's annual production rate is approximately 20 percent. The wild horse population is managed through gather and removal of excess animals as well as fertility control application. This area was last gathered in 2022.

#### **Reasonably Foreseeable Environmental Trends and Planned Actions in the Area**

The population of wild horses within the PEDHMA is currently above the Appropriate Management Level (AML). WRFO plans to continue making progress toward achieving and maintaining AML through gather and removal of excess wild horses as well as application of fertility control treatments.

#### **Effects of Alternative A (No Action Alternative)**

The proposed permit renewal is located within the PEDHMA. The current livestock grazing operation has co-existed with wild horse management in this area for decades. As wild horse population has increased, exceeding AUMs that have been allocated to wild horse use, the livestock grazing permittee has made voluntary reductions in grazing use either through stocking rate or duration. Continuation of current management is not anticipated to affect management of wild horse population as WRFO works to make progress toward achieving AML within the PEDHMA through gather and removal of excess wild horses.

Progress toward achieving land health standards can be expected with continuation of current management and managing the wild horse population to AML within the HMA.

Under this alternative, range improvement projects that benefit both livestock and wild horses would continue to be installed, upgraded, and maintained through cooperation between the grazing permittee, BLM, and wild horse partner groups.

**Effects of Alternative B (Sage Grouse Alternative/Proposed Action)**

Effects of Alternative B to wild horse management would be similar to continuation of current management.

**Effects of Alternative C (No Livestock Grazing Alternative)**

Under this alternative, there would be no overlap of forage use between livestock and wild horses. If the population of wild horses is not managed to within AML, this alternative alone would not make progress toward achieving land health standards.

Cooperative maintenance and installation of range improvement projects including fencing and water developments between BLM and the grazing permittee would no longer occur. BLM and wild horse groups would have sole responsibility for funding and labor to complete maintenance, installation, and upgrades to these projects.

**5.8. Public Land Health Standard #4- Special Status Plant Species**

**5.8.1. How would trampling and grazing affect Federally listed threatened plants (*Physaria congesta* Dudley Bluffs bladderpod and *Physaria obcordata* Dudley Bluffs twinpod)?**

**Affected Environment**

Three federally listed plant species occur or have the potential to occur within the Yellow Creek grazing allotment *Physaria congesta* Dudley Bluffs bladderpod, *Physaria obcordata* Dudley Bluffs twinpod and *Spiranthes diluvialis* Ute Ladies’-tresses Table #7Table . However, Ute Ladies'-tresses has been omitted from analysis as it has not yet been identified within the field unit, and potential habitats may be more likely to be found along the White River. Therefore, the Dudley Bluffs bladderpod, hereafter bladderpod, and the Dudley Bluffs twinpod, hereafter twinpod, are the only species potentially impacted by the Proposed Action. Detailed descriptions of each plant’s natural history and known distribution is provided in Section 3.3.4 of the 2015 Oil and Gas Development Proposed RMPA/FEIS and is hereby incorporated by reference. Section 7 Consultation with the Fish and Wildlife Serves (FWS) was conducted to address the ESA federally listed *Physaria* species. A Biological Assessment was submitted on 7/13/2023. A FWS Biological Memorandum (FWS/R6/Ecosphere 2023-0122633) was received back on 9/20/2023.

**Table #7. Federally Listed Plant Species Possibly Located Within the Yellow Creek Allotment**

Common Name	Scientific Name	Habitat	Status
Dudley Bluffs bladderpod	<i>Physaria congesta</i>	Barren, white shale outcrops of the Green River and Uinta	Threatened



		Formations (6,000-6,700 ft)	
Dudley Bluffs twinpod	<i>Physaria obcordata</i>	Barren, white outcrops and steep slopes of the Parachute Creek Member of the Green River Formation (5,900-7,500 ft)	Threatened
Ute Ladies'-tresses	<i>Spiranthes diluvialis</i>	Sub-irrigated alluvial soils along streams and in open meadows in flood plains (4,500-6,800 ft)	Threatened

Special status plant species (SSPS) surveys within the Yellow Creek Allotment have been conducted for various projects within the allotment that are not connected to livestock grazing but were taken into consideration for analysis as known mapped occupied and suitable SSPS habitat. Most recent surveys (2021-2023) conducted by the WRFO BLM ecologist, focused directly on known livestock concentration areas within the Yellow Creek allotment. In 2022, one new occupied population was mapped by the WRFO BLM ecologist and Colorado BLM State botanists for twinpod (20 acres). In total, currently the Yellow Creek grazing allotment contains 416 acres of occupied habitat for both twinpod and bladderpod. These occupied acres encompass 3 bladderpod and 4 twinpod element occurrences (EOs). An EO refers to a specific unit of occupied habitat ecologically separated from other such units. There are currently 82.5 acres of existing disturbance within the plant consideration area surrounding the EOs. The majority of the disturbance acreage within 600 meters of the occupied habitat consists of oil and gas infrastructure, wild horse grazing, county roads, pipeline ROWs, and two-track roads.

Impacts to twinpod and bladderpod will always occur whether from development for oil and gas, recreation, or wild/domestic ungulate grazing. Depending on the severity of the impact, effects to both species could be considered permanent. Thus, why the two species are federally protected and have various protections in the WRFO RMP and 2015 RMPA for Oil and Gas Development. The entire Yellow Creek allotment is within the boundary of the PEDHMA. Currently, wild horse population numbers within PEDHMA are at an unprecedented high and above appropriate management level (AML), population management plans are currently being implemented and planned to reduce wild horse numbers.

The most current annual monitoring of Dudley Bluffs bladderpod and Dudley Bluffs twinpod was completed in mid-May 2022 by the Colorado BLM State Office. This marked the eleventh year of monitoring at Duck Creek ACEC (2012-2022). In 2022, the report depicted “Observed substantial damage from horse trampling at Duck Creek including within our study plot. Tags had been kicked from the ground and a subset of the plants in our sample were crushed – contributing to a downward trend at the site driven largely by harsh climatic conditions over the past five years. Despite a reduction of approximately 50% over the past seven sampling intervals, the Duck Creek study site remains one of the densest populations of *P. congesta* we’ve assessed. There were an estimated 21,780 individual plants within our macroplot in 2022. A range-wide decline overall is likely largely driven by climate, though there have been increasing impacts from wild horses outside of the PEDHMA (Krening 2022).

### **Effects of Alternative A (No Action Alternative)**

Population-level effects of grazing and trampling on bladderpod or twinpod have not been widely studied. Two CNAP monitoring studies found no easily identifiable effects of grazing and trampling on plant numbers.

Effects from cattle to bladderpod are confined to trampling, uprooting, and habitat degradation from soil disturbance and compaction, alteration of vegetation structure, and the spread of invasive plant species via hooves, hides, and feces. Effects to twinpod also include herbivory. The magnitude of effects likely varies depending on stocking rate, frequency, duration, and season of grazing, as well as site slope and soil moisture. Cattle grazing on a steep slope occupied by twinpod could have significant impacts by displacing soils and uprooting plants. Cattle trailing itself may concentrate the above-mentioned effects locally. Livestock selection and consumption of bladderpod is thought to be relatively insignificant because of the size of the plant and/or the barrenness of the habitats on which they occur. Secondary herbivory on less-palatable herbaceous vegetation such as dormant, low-growing mustard species is unlikely under stable range conditions, and during the dormant season of use. This has been confirmed by on-going monitoring and the lack of selective herbivory observed. Operation and maintenance on the Yellow Creek allotment by the permittee also has the potential to affect bladderpod and twinpod, activities may include fence and corral construction and maintenance, cattle gathering and trailing, and water developments. However, these effects can be avoided by checking activity's locations prior to occurrence/construction and bladderpod and twinpod habitats can be avoided.

Effects of livestock grazing on vegetation are dependent on the utilization intensity, timing, frequency, and distribution of the herbivory, and include associated mechanical effects. Cattle grazing may have minimal impacts on bladderpod and twinpod individuals, populations, and habitats within the Yellow Creek allotment. Although there has been some previously documented evidence of livestock trailing and trampling damage, field observation, mitigation and long-term monitoring suggests that livestock grazing, as well as trailing, trampling, and bedding is not jeopardizing the Dudley Bluffs twinpod and bladderpod populations.

### **Effects of Alternative B (Sage Grouse Alternative/Proposed Action)**

Alternative B would have the same impacts to SSPS in the direct vicinity of the Yellow Creek Allotment as Alternative A. The addition of terms and conditions to ensure that habitat requirements for sage-grouse are met throughout the grazing year and to allow for management during drought years would not change occupied habitat and trends for the threatened *Physaria* species.

### **Effects of Alternative C (No Livestock Grazing Alternative)**

Under Alternative C there would be no action authorized so there would be no direct or indirect impacts to special status plant species in the direct vicinity of the Yellow Creek Allotment with regards to livestock grazing. No individual plants or suitable habitat would be removed/damaged, and the area would not suffer from possible plant habitat fragmentation.

## Mitigation Measures

1. If monitoring indicates that livestock grazing shows any short- or long-term effects on either Dudley Bluffs bladderpod or Dudley Bluffs twinpod populations or suitable habitats, the cattle will be removed from the effected pasture until further NEPA analysis, Section 7 consultation and protective and/or corrective actions have been determined to alleviate effects.
2. No concentrating of livestock, water resource developments, or supplemental feeding areas will be allowed within 200 meters of Dudley Bluffs bladderpod or Dudley Bluffs twinpod occupied habitats.
3. Salt will continue to be placed in drainages and away from side slopes containing Dudley Bluffs twinpod and Dudley Bluff bladderpod occupied and suitable habitats. No salting will be allowed within 200 meters of listed plant populations. A salt plan map will be developed showing no salt zones (200-meter buffers around occupied habitat).
4. If Yellow Creek grazing regimens are changed from the above grazing permit, that would result in on-the-ground changes to allotment vegetation use, further allotment analysis will be required, and consultation will be re-initiated.
5. If SSPS or vegetation monitoring (i.e. long-term Daubenmire plot monitoring, existing ACEC study sites, or existing Colorado State Office BLM study sites) indicate a decline in *Physaria* spp. trends, because of livestock grazing, cattle will be removed from the pasture until further NEPA analysis, consultation and protective and/or corrective actions (i.e. fencing) have been determined.
6. The BLM ecologist will be notified if any allotment maintenance (i.e. fencing, water developments) is required after the grazing permit is authorized. Maintenance actions may require additional special status plant species surveys. Depending on survey results additional mitigation may be applied to help protect Dudley Bluffs bladderpod or Dudley Bluffs twinpod.
7. If cheatgrass (*Bromus tectorum*) becomes problematic within occupied Dudley Bluffs bladderpod or Dudley Bluffs twinpod habitat, as a direct result of livestock grazing, appropriate corrective actions will be implemented to help reduce effects. Corrective actions may include but are not limited to; hand removal and/or herbicide treatment.

## 6. SUPPORTING INFORMATION

### 6.1. Interdisciplinary Review

Name	Title	Area of Responsibility	Date Signed
Luke McCarty	Rangeland Management	Soils, Vegetation, Livestock Grazing, Riparian	1/29/2024

Name	Title	Area of Responsibility	Date Signed
	Specialist, Project Lead		
Tyrell Turner	Wild Horse and Burro Specialist	Wild Horses	1/26/2024
Heather Woodruff	Ecologist	Special Status Plant Species	11/7/2023
Matt Dupire	Wildlife Biologist	Special Status Animal Species, Raptors and Migratory Birds and Aquatic Wildlife, and Terrestrial Wildlife	1/26/2024
Lukas Trout	Archaeologist & Paleontology Coordinator	Archaeology, Paleontology, Native American Religious Concerns	8/18/2023
Pete Doan	Planning & Environmental Coordinator	NEPA Compliance	1/29/2024

## 6.2. Tribes, Individuals, Organizations, or Agencies Consulted

In compliance with Section IX of Instruction Memorandum No. CO-2002-029, the WRFO prepared a summary of analyses conducted for range permit activities, in addition to conducting a Class II survey on two known livestock concentration areas within the Yellow Creek allotment (OAHP Doc. # RB.LM.NR2540). This analysis was submitted to the Colorado State Historic Preservation Officer (SHPO) on 8/18/2023. Pursuant to the Protocol Agreement between the Colorado BLM and SHPO, this undertaking does not exceed any of the review thresholds that would require SHPO concurrence and there would be *no adverse effect* to historic properties.

No Native American religious concerns are known in the area, and none have been noted by Tribal authorities. Should recommended inventories or future consultations with Tribal authorities reveal the existence of such sensitive properties, appropriate mitigation and/or protection measures may be undertaken.

A Biological Assessment was submitted to U.S. Department of the Interior Fish and Wildlife Service Ecological Services (FWS) on 7/13/2023. A Biological Opinion was received 9/20/2023 concurring with WRFO assessment determination. FWS/R6/Ecosphere 2023-0122633.

## 6.3. References

Federal Register, Vol 55, No. 25. February 6, 1990, Rules and Regulations. pp. 4152. Dept. of the Interior, USFWS, 50 CFR Part 17.

Krening, P. 2022. BLM - Dudley Bluffs bladderpod and twinpod (*Physaria congesta* and *Physaria obcordata*) Population trend monitoring summary - 2022. Personal Field Observation.

Rangewide Status Review of Ute Ladies'-Tresses, Prepared for US Fish and Wildlife Service and the Central Utah Water Conservancy District. Fertig et al. 30 September 2005.

Spackman, S, B Jennings, J Coles, C Dawson, M Minton, A Kratz and C Spurrier. 1997. Colorado rare plant field guide. Prepared for the Bureau of Land Management, the U.S. Forest Service, and the U.S. Fish and Wildlife Service by the Colorado Natural Heritage Program.

The Pollination Biology of Piceance Basin Endemic, *Physaria Obcordata* (Cruciferae). Tepedino, V.J. Dept. of Biology and the Ecology Center, Utah State University and 2 Shadow Mountain Drive, Logan, UT 84321-6737.

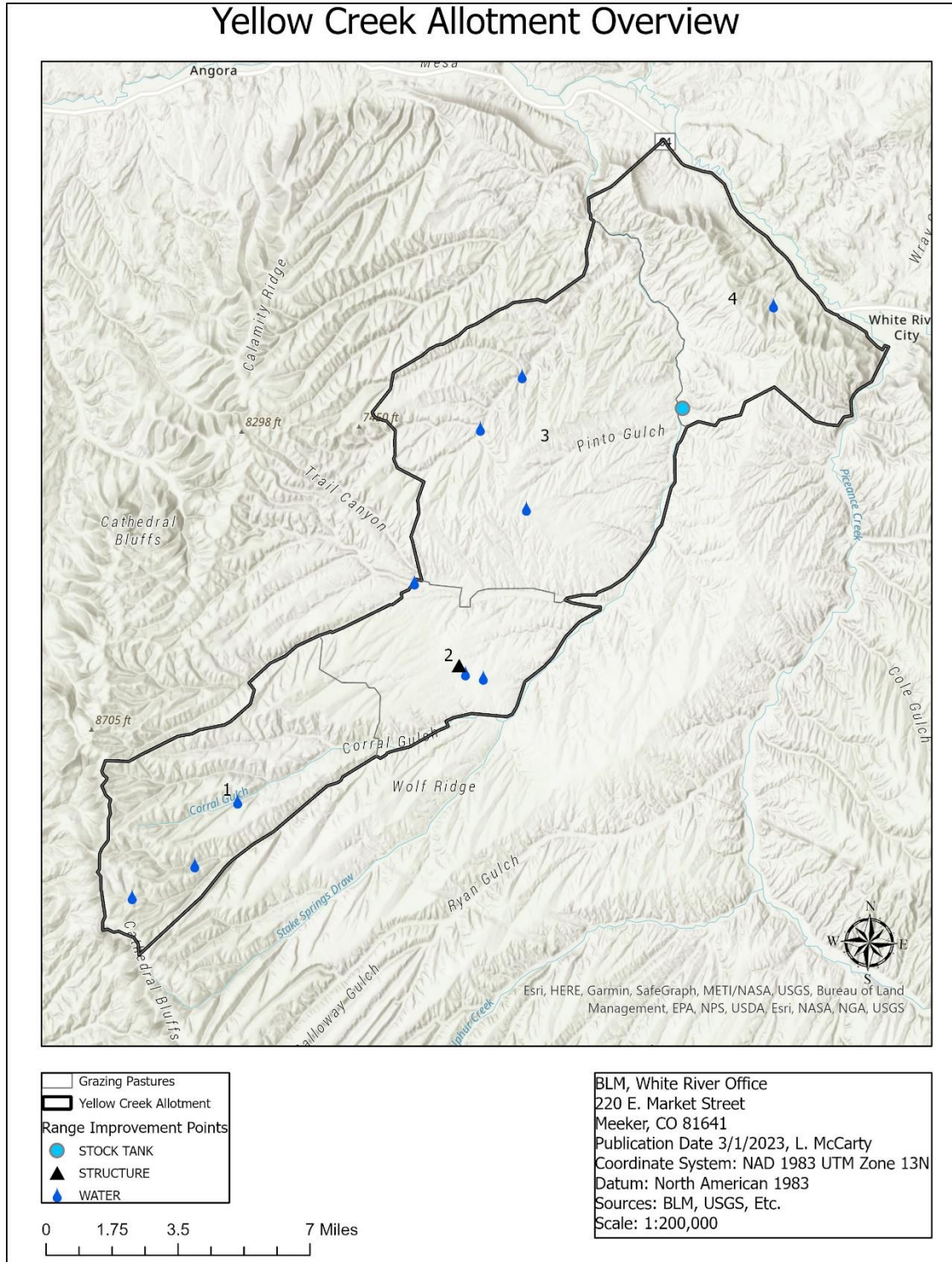
U.S. Fish and Wildlife Service, Western Colorado Field Office. 2020. Dudley Bluffs Bladderpod and Dudley Bluffs Twinpod 5-year Review, Summary and Evaluation. Grand Junction, CO.

U.S. Fish and Wildlife Service (USFWS). 2020a. Recovery Implementation Strategy for Dudley Bluffs Bladderpod (*Physaria* (*Lesquerella*) *congesta*) and Dudley Bluffs Twinpod (*Physaria* *obcordata*). Western Colorado Ecological Services Field Office, Grand Junction, Colorado

White River Record of Decision and Approved Resource Management Plan (ROD/RMP). U.S. Dept. of the Interior, BLM, White River Resource Area, CO. July 1997.

# APPENDIX A. FIGURES

Appendix A. Figure 1.



## APPENDIX B. EXISTING RANGE IMPROVEMENTS

There are 24 range improvements within the Yellow Creek allotment (see Table 8 and Appendix A, Figure 1).

Range improvements that are under a cooperative maintenance agreement would be maintained by the permittee(s). Some examples of maintenance actions include annual fence work to keep fences clear of brush, functional and cattle tight; equipment use to remove sediment from ponds; equipment use to re-develop spring sources, replace water lines, troughs, and storage tanks. Disturbance associated with maintenance actions will be kept within existing disturbance areas. Where herbaceous vegetation is heavily disturbed by maintenance actions a BLM recommended seed mix will be applied at the appropriate time of year and noxious weeds will be controlled. Prior to maintaining existing range improvement projects the permittee(s) must notify the BLM of their intent so the BLM can verify or complete adequate cultural surveys.

**Table 8. Existing Range Improvements in the Yellow Creek Allotment**

Name (Number)	Type	Condition	Cooperative Maintenance Agreement
Dead Horse Ridge Well and Storage (207457)	Water Development	Functional	Yes
Yellow Creek Pasture Fence (207316)	Fence	Functional	Yes
Dudley Fence (207287)	Fence	Functional	Yes
Yellow Creek Winter Fence (4088)	Fence	Functional	Yes
Greasewood Well (207166)	Water Development	Functional	Yes
Centennial Well (1356)	Water Development	Functional	Yes
Greasewood Pits #1-#6 (2004-2009)	Water Development	Functional	Yes
Lower Section 4 Well (1355)	Water Development	Functional	Yes
Corral Well, Storage and Pipeline (1450)	Water Development	Functional	Yes
Little Hills Winter Fence (1844)	Fence	Functional	Yes
Conroy Well (4687)	Water Development	Functional	Yes
Middle Fork Corral Gulch G-W-L Spring (0002)	Water Development	Functional	Yes

Hatch Gulch Spring (1064)	Water Development	Functional	Yes
Little Corral Gulch Spring (0183)	Water Development	Functional	Yes
Box Elder Fence (4267)	Fence	Functional	Yes
84 Mesa Well	Water Development	Functional	Yes
Little Corral Spring (0675)	Water Development	Functional	Yes
Thompson Gulch Well (C1-R-137)	Water Development	Functional	Yes
Gordonshire Spring (S-C-227)	Water Development	Functional	Yes
Cottonwood Spring (0998)	Water Development	Functional	Yes
Collins Gulch Spring (1033)	Water Development	Functional	Yes
Jessup Spring #2	Water Development	Functional	RI Permit
Duck Creek- G&F Fence (C1-R-104)	Fence	Functional	Yes
Cole Gulch Pit, Hatch Pit (0610, 0611)	Water Development	Functional	Yes



## APPENDIX C. ALT B – THRESHOLDS AND RESPONSES

Under Alternative B, three thresholds would be established to ensure grazing use would be compatible with meeting sage-grouse habitat objectives. These three thresholds are related to drought, range readiness, and utilization on the allotment within designated PHMA.

### C.1. Drought

When there are indications of below normal precipitation, the permittee and the BLM would assess local conditions and outlooks to determine what adjustments are needed (including, but not limited to, pasture deferment, rest, modified livestock grazing rotation, change in livestock numbers).

The Society for Range Management has defined drought as receiving 75 percent or less precipitation than the long-term average (SRM 1989). More specific definitions and criteria can be found from the USDA/NOAA Drought Monitor and Svoboda et al. (2002).

The BLM would use precipitation in conjunction with drought condition and outlook predictions from the USDA/NOAA Drought Monitor (<http://droughtmonitor.unl.edu/>) to determine climatic conditions in the area of the allotments. The long-term average precipitation amount for each month and season would be calculated for the affected allotments using data collected from the Rangeland Western Regional Climate Center (WRCC) weather station, the most appropriate and proximate remote automated weather station (RAWS), and two BLM precipitation gauges located near Elk Springs and on Spooky Mountain. For these allotments precipitation would be analyzed from the previous water year (October 1<sup>st</sup> to September 30<sup>th</sup>) prior to livestock turnout. After livestock turnout and through the use period, precipitation and vegetation conditions would continue to be monitored to ensure continued rangeland health.

Although drought identification would be based on the Drought Monitor, actual management actions would be based on site-specific conditions within the allotments as shown in Table X.

**Table C1. Management Responses to Various Precipitation Scenarios**

Precipitation/ Vegetation Condition	Grazing Management Response	Additional Considerations
Normal (Not Drought)	Follow normal grazing schedule with normal utilization targets.	Conduct visual assessments of utilization and track precipitation. Consider timing of precipitation and assess vegetation conditions when planning current year's use. Adjust rotations as needed to stay within utilization targets.
Below Normal 65%-75% (Abnormally Dry to Moderate Drought)	Coordinate to schedule reduced numbers and adjust grazing schedules to rotate through pastures such that utilization averages 40 percent, potentially leaving each allotment early	Continue to monitor utilization and precipitation. Consider timing of precipitation and vegetation conditions when planning current year's use.

		Communicate altered rotations needed to achieve desired utilization levels.
Below Normal <65% (Severe to Exceptional Drought)	Coordinate to schedule <u>substantially</u> reduced numbers and to adjust grazing schedules to rotate through allotments/pastures such that utilization averages 40 percent, potentially leaving allotments early.	Consider complete rest/deferment until perennial grasses have produced mature seed or until key forage species are dormant.  To allow improved recovery, plan the following year's grazing at potentially reduced numbers to allow for recovery.

## C.2. Range Readiness

Range readiness would be assessed each year prior to May 1st. To measure range readiness on the key areas of the Yellow Creek allotment, plant phenology assessments would be completed using the method described in Fraser 2003. Assessments would be completed on three key forage areas within the allotment. Those species being western wheatgrass, needle-and-thread, and sandberg bluegrass. To determine if the allotment is ready for livestock turnout, western wheatgrass would be at a 4.0 leaf development stage, needle-and-thread would be at a 3.0 leaf development stage, and sandberg bluegrass would be at a 2.5 leaf development stage.

On years where range readiness assessments did not meet the above standards by May 1st, turnout would be delayed until phenology assessments meet the standards. On years where turnout is delayed due to range readiness thresholds not being met, the permittee may be authorized to stay on the allotment at the end of the grazing season for up to 15 extra days to make up for time lost on the allotment. This determination would be made in consultation and coordination with the BLM and the grazing permittee during the grazing season and would only be authorized if no other thresholds have been crossed, and if the permittee is not exceeding the number of authorized AUMs on the permit.

## C.3. Utilization

Utilization would be the final threshold assessment used on the Yellow Creek allotment. The 1997 White River ROD/RMP sets utilization limits on an allotment to 40-60 percent on key forage areas depending on the time of year the allotment is being grazed. On the Yellow Creek allotment, utilization on key forage areas would be limited to 40-50% percent on key forage areas to provide adequate residual cover for soil protection and concealment for sage-grouse. When the threshold is crossed, the permittee would be required to move to the next pasture or allotment.

## C.4. Monitoring

To ensure the greater sage-grouse habitat objectives are being met, the BLM would continue to use Assessment, Inventory, and Monitoring (AIM) and Habitat Assessment Framework (HAF) assessments to determine habitat suitability. AIM and HAF assessments would be conducted at a minimum of every five years to ensure grazing management is not contributing to the degradation of habitat. If it is determined that habitat suitability is on a downward trend and

grazing is the causal factor, the BLM would coordinate with the permittee to discuss changes to the grazing schedule to be more compatible with sage-grouse habitat objectives. Changes in the grazing schedule would be analyzed in a new NEPA document.

Utilization monitoring would be a collaborative effort between the BLM and the grazing permittee to monitor the utilization threshold. The BLM rangeland management specialist and grazing permittee would go into the field jointly for the first year to educate the permittee on assessing utilization on the allotment in key forage areas. Each subsequent year, the permittee and BLM staff would monitor utilization a minimum of once per year per pasture while livestock are in the pasture.

## **APPENDIX D. STANDARD TERMS AND CONDITIONS**

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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 BLM within the allotment 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 or 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. The holder of this authorization must notify the authorized officer immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (cultural items), stop the activity in the area of the discovery and make a reasonable effort to protect the remains and/or cultural items.
11. 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.
12. No Member of, 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 the 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.

13. This grazing permit conveys no right, title or interest held by the United States in any lands or resources.
14. This grazing permit is subject to a) modification, suspension or cancellation as required by land plans and applicable law; b) annual review of terms and conditions as appropriate; and c) the Taylor Grazing Act, as amended, the Federal Land Policy and Management Act, as amended, the Public Rangelands Improvement Act, and the rules and regulations now or hereafter promulgated thereunder by the Secretary of the Interior.

## APPENDIX E. OTHER GRAZING LEASE TERMS AND CONDITIONS

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Livestock grazing permits may also contain site-specific terms and conditions “determined by the authorized officer to be appropriate to achieve management and resource conditions objectives”, to ensure conformance with Colorado Public Land Health Standards and Fundamentals of Rangeland Health, and to “assist in the orderly administration of the public rangelands” (43 CFR 4130.3, 4130.3-2). The following terms and conditions would apply to both Alternative B. Additional terms and conditions may be identified through the impacts analysis in this EA as mitigation measures necessary to meet resource objectives and may be added to the grazing permit in the final decision.

1. In order to improve livestock distribution on the public lands, no salt blocks and/or mineral supplements will be placed within ¼ mile of any riparian area, wet meadow, or watering facility (either permanent or temporary) unless stipulated through a written agreement or decision. (43 CFR 4130.3-2(c))
2. Livestock Grazing Utilization Guidelines. Average utilization levels by livestock should not exceed:
  - a. Key Grass Species
    - i. 40% on key grass species for the grazing period from April 1 to June 15
    - ii. 40-60% for the grazing period from June 15 to September 15
    - iii. 60% for the grazing period from September 15 to March 31
  - b. Key Browse Species
    - i. 40% for the grazing period from April 1 to September 30
    - ii. 50-60% for the grazing period from October 1 to March 31
3. All new water sources require prior BLM approval and NEPA analysis due to the potential to change livestock distribution and to create concentration areas.
4. Thirty days prior to turnout, the permittee/lessee will submit a plan of operation (grazing application) for the grazing year to the BLM for approval. The plan of operation will include the anticipated turnout dates, numbers of animals, and the sequence that the allotments and/or pastures will be used.
5. Pursuant to 43 CFR 10.4(g), the permittee/lessee must notify the AO, by telephone and 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), the operator/holder/applicant must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.
6. The permittee/lessee is responsible for informing all persons who are associated with allotment operations that they will be subject to prosecution for disturbing or collecting vertebrate or other scientifically-important fossils, collecting large amounts of petrified wood (over 25lbs./day, up to 250lbs./year), or collecting fossils for commercial purposes on public lands. If any paleontological resources are discovered as a result of operations

under this authorization, the permittee/lessee must immediately contact the appropriate BLM representative.

7. If monitoring indicates that livestock grazing shows any short- or long-term effects on either Dudley Bluffs bladderpod or Dudley Bluffs twinpod populations or suitable habitats, the cattle will be removed from the effected pasture until further NEPA analysis, Section 7 consultation and protective and/or corrective actions have been determined to alleviate effects.
8. No concentrating of livestock, water resource developments, or supplemental feeding areas will be allowed within 200 meters of Dudley Bluffs bladderpod or Dudley Bluffs twinpod occupied habitats.
9. Salt will continue to be placed in drainages and away from side slopes containing Dudley Bluffs twinpod and Dudley Bluff bladderpod occupied and suitable habitats. No salting will be allowed within 200 meters of listed plant populations. A salt plan map will be developed showing no salt zones (200-meter buffers around occupied habitat).
10. If Yellow Creek grazing regimens are changed from the above grazing permit, that would result in on-the-ground changes to allotment vegetation use, further allotment analysis will be required, and consultation will be re-initiated.
11. If SSPS or vegetation monitoring (i.e. long term Daubenmire plot monitoring, existing ACEC study sites, or existing Colorado State Office BLM study sites) indicate a decline in *Physaria* spp. trends, because of livestock grazing, cattle will be removed from the pasture until further NEPA analysis, consultation and protective and/or corrective actions (i.e. fencing) have been determined.
12. The BLM ecologist will be notified if any allotment maintenance (i.e. fencing, water developments) is required after the grazing permit is authorized. Maintenance actions may require additional special status plant species surveys. Depending on survey results additional mitigation may be applied to help protect Dudley Bluffs bladderpod or Dudley Bluffs twinpod.
13. If cheatgrass (*Bromus tectorum*) becomes problematic within occupied Dudley Bluffs bladderpod or Dudley Bluffs twinpod habitat, as a direct result of livestock grazing, appropriate corrective actions will be implemented to help reduce effects. Corrective actions may include but are not limited to; hand removal and/or herbicide treatment.