

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

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**Environmental Assessment  
DOI-BLM-CO-N05-2015-0003**

***Blacks Gulch Water Development Projects***

**January 2015**

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:** Blacks Gulch Water Development Projects

**Legal Description:** T2N, R96W Sec 1, T3N R96W Sec 24 and 25, T3N R95W Sec 31, and T2N R96W Sec 21 SE

**Applicant:** LK Ranches (L. Klinglesmith)

**NEPA Document Number:** DOI-BLM-CO-N05-2015-0003-EA

**Casefile/Project Number:** 0504375

## 1.2. Background

LK Ranches obtained the grazing permit on the Blacks Gulch allotment several years ago. As they gain familiarity with the allotment they are seeking opportunities to improve livestock management in this allotment. The current grazing permit for LK Ranches in the Blacks Gulch allotment results in large numbers of cattle moving through pastures for relatively short timeframes. Having adequate water sources available and optimizing distribution are key components for improving livestock management under this grazing plan.

Recently LK Ranches identified and proposed two sites for water development projects. Currently due to lack of water, livestock make little use in these areas. Providing water at these locations would improve livestock distribution and reduce grazing pressure in areas closer to water.

On August 11, 2014 these proposed project sites were visited by the permittee, a CPW employee, and the BLM Range Specialist. After analysis and if approved, the BLM would cost share 25-30 percent of overall project costs. The local CPW Habitat Partnership Program committee has also agreed to provide 25-30 percent of the needed funding. Pending approval, the local Grazing Advisory Board may provide up to 17 percent of the needed funding as well. LK Ranch would fund the balance of the project.

The current grazing schedules authorized in the Blacks Gulch allotment as analyzed in DOI-BLM-CO-110-2012-0018-EA are shown in Tables 1 and 2. The schedules associated with the Scenery Gulch and Tschuddi Gulch pastures where the range improvement projects are proposed are highlighted. The Tschuddi Gulch pasture has three distinct use areas.

**Table 1. Grazing Schedule – Even Years**

Allotment 06612	Livestock		Date		Use Type	Total AUMs*	% PL	BLM AUMs	PVT AUMs	
	Pasture Name	Number	Kind	On						Off
	Blacks Gulch	600	C	3/15	4/1	A	355	93%	330	25
	Middle	600	C	4/2	4/19	A	355	97%	344	11
	Homestead Wray	600	C	4/20	4/26	A	138	41%	57	81
	Oil Well Gulch	600	C	4/27	5/07	A	217	90%	195	22
	<b>Tschuddi Gulch</b>	<b>600</b>	<b>C</b>	<b>5/08</b>	<b>5/25</b>	<b>A</b>	<b>355</b>	<b>58%</b>	<b>206</b>	<b>149</b>
	<b>Scenery Gulch</b>	<b>600</b>	<b>C</b>	<b>5/26</b>	<b>6/15</b>	<b>A</b>	<b>414</b>	<b>75%</b>	<b>311</b>	<b>103</b>
<b>Totals:</b>							<b>1834</b>		<b>1443</b>	<b>391</b>

**Table 2. Grazing Schedule – Odd Years**

Allotment 06612	Livestock		Date		Use Type	Total AUMs	% PL	BLM AUMs	PVT AUMs	
	Pasture Name	Number	Kind	On						Off
	Blacks Gulch	600	C	3/15	4/1	A	355	93%	330	25
	Homestead Wray	600	C	4/2	4/8	A	138	41%	57	81
	Oil Well Gulch	600	C	4/9	4/19	A	217	90%	195	22
	Middle	600	C	4/20	5/07	A	355	97%	344	11
	<b>Scenery Gulch</b>	<b>600</b>	<b>C</b>	<b>5/08</b>	<b>5/25</b>	<b>A</b>	<b>355</b>	<b>75%</b>	<b>266</b>	<b>89</b>
	<b>Tschuddi Gulch</b>	<b>600</b>	<b>C</b>	<b>5/26</b>	<b>6/15</b>	<b>A</b>	<b>414</b>	<b>58%</b>	<b>240</b>	<b>174</b>
<b>Totals:</b>							<b>1834</b>		<b>1432</b>	<b>402</b>

\*An AUM (animal unit month) is the amount of forage necessary for the sustenance of one cow or its equivalent for a period of one month.

### 1.3. Purpose and Need for Action

The purpose of this action is to facilitate the orderly use of public lands for livestock grazing in accordance with the Taylor Grazing Act of 1934 as amended; the Federal Land Policy and Management Act of 1976 as amended; and the Public Rangelands Improvement Act of 1978. The need for this action is to facilitate livestock grazing on Bureau of Land Management (BLM) grazing allotments in a manner that promotes achievement of the Colorado Public Land Health Standards.

### 1.4. Decision to be Made

Based on the analysis contained in this EA, the BLM will decide whether to approve or deny the proposed Blacks Gulch Water Development projects and if so, under what terms and conditions. Under the National Environmental Policy Act (NEPA), the BLM must determine if there are any significant environmental impacts associated with the Proposed Action warranting further

analysis in an Environmental Impact Statement (EIS). The Field Manager is the responsible officer who would decide one of the following:

- To approve the Blacks Gulch Water Development projects with design features as submitted;
- To approve the Blacks Gulch Water Development projects with additional mitigation added;
- To analyze the effects of the Proposed Action in an EIS; or
- To deny the Blacks Gulch Water Development projects.

## **1.5. 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)

“Rangeland improvements would be identified in activity plans. Range improvements are necessary to control livestock use and improve rangeland condition.” (page 2-25)

## **2. PUBLIC INVOLVEMENT**

### **2.1. Scoping**

NEPA regulations (40 CFR 1500-1508) require that the BLM use a scoping process to identify potential significant issues in preparation for impact analysis. The principal goals of scoping are to identify issues, concerns, and potential impacts that require detailed analysis. Scoping is both an internal and external process.

Internal scoping was initiated when the project was presented to the White River Field Office (WRFO) interdisciplinary team on October 7, 2014. External scoping was conducted by posting this project on the BLM’s online (ePlanning) National Environmental Policy Act (NEPA) register on November 16, 2014.

## 3. PROPOSED ACTION AND ALTERNATIVES

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### 3.1. Proposed Action

#### 3.1.1. Project Components and General Schedule

LK Ranches proposes to implement two water development projects in the upper ends of the Tschuddi and Scenery Gulch pastures of the Blacks Gulch allotment #06612 (see Exhibit A). LK Ranches would like to implement these projects in May 2015 so water is available when livestock are moved into those pastures in early June. The projects are described below.

**Scenery Gulch Section 31 Well and Trough:** In the Scenery Gulch pasture a small truck mounted drill would be used to drill a water-well on public lands at one of two identified sites in an un-named draw in the eastern side of this pasture. An existing faint two-track road would be used to access the site and there would be minimal disturbance associated with drilling activities. Solar panels would be installed adjacent to the well to power a pump. A backhoe or small dozer would be used to clear a site within 20 feet of the well where an 8 foot by 12 foot fiberglass stock trough would be installed. Two wildlife escape ramps would be installed in the trough. A short (~75 foot) pipeline would be trenched in to direct overflow water away from the trough site. Coarse rock (2-3 inch), brought in by dump-truck, would be spread around the trough to reduce hoof-action related soil disturbance and erosion. In the future the well would be pumped seasonally for the period livestock are in the area between early-May to mid-June.

Currently the existing faint two-track is minimally visible but does not need repairs in order to get equipment to the well and trough site. Future maintenance of this access route would be assigned to the permittee as part of this range improvement project. Route maintenance would retain the current character of the route and would be limited to the minimum needed to access the well/trough site. Deeply eroded places may be filled as needed but no general blading of the route would occur. There is no public access to this faint two-track route.

New surface disturbance for this project including drilling the well (100 sq. ft.), setting up solar panels (25 sq. ft.), clearing and leveling a site for setting a trough (300 sq. ft.) would be less than 500 square feet. The water source would create a new area of general livestock concentration in the surrounding 10-15 acres and would allow increased livestock distribution and use throughout upland sites within approximately a one mile radius of this project.

**Upper Tschuddi Waterline and Trough:** In the Tschuddi pasture an existing spring on Colorado Parks and Wildlife (CPW) property would be re-developed and a solar panel would be installed to pump water. A 1¼ inch diameter waterline would be trenched or ripped in up the valley bottom by a back hoe, a trencher, or a ripper attachment on a small dozer. The water line would be placed within 10-15 feet of the existing two-track where the valley bottom is narrow and approximately 50-100 feet from the two-track where the valley is wider. Vegetation would be pulled back over the waterline to make it less visible. Fence posts would be driven at appropriate intervals along the pipeline to indicate its location to prevent future accidental disturbance.

Water would be piped up 1,260 feet across CPW property and approximately 2,360 feet across BLM lands to an area adjacent to a large existing catchment near the northern end of this pasture. The existing two-track would be used to access the trough site. A backhoe or small dozer would be used to clear and level a site adjacent to the existing catchment where an 8 foot by 12 foot fiberglass stock trough would be placed. Two escape ramps would be installed in the trough. A short (~75 foot) pipeline would be trenched in to direct overflow water away from the trough site and into the catchment. Coarse rock (2-3 inch), brought in by dump-truck, would be spread around the trough to reduce hoof-action related soil disturbance and erosion.

Currently the existing two-track (Gray Hills, BLM Rd. 1710) is badly eroded in places due to the absence of water bars. A back hoe or small dozer would be used to fill the deeper eroded sections where needed in order to get equipment to the upper trough location. Where feasible water bars would be installed to reduce water running down the two-track for long stretches. Road improvements and future road maintenance would be kept to the minimum needed in order to complete and maintain the project. Future maintenance of this section of road would be assigned to the permittee as part of this range improvement project. There is public access to this two-track road.

New surface disturbance for this project including clearing and leveling a site for setting a trough (300 sq. ft.) and installing in the water line (3,540 sq. ft.) would total less than 4,000 square feet. This new water source would create a new area of general livestock concentration in the surrounding 10-15 acres and would allow increased livestock distribution and use throughout upland sites within approximately a one mile radius of this project.

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### 3.1.2. Design Features

1. All areas of soil surface disturbance associated with the Scenery Gulch well project site would be seeded with BLM seed mix number 5 and soil disturbance associated with the Upper Tschuddi Gulch water line and trough would be seeded with BLM seed mix number 6 (Tables 3-4).

**Table 3. Seed Mix #5 for the Scenery Gulch Project**

Variety	Common Name	Scientific Name	PLS/acre
Magnar	Basin Wildrye	<i>Leymus cinereus</i>	3.5
Rosana	Western Wheatgrass	<i>Pascopyrum smithii</i>	3.5
San Luis	Slender Wheatgrass	<i>Elymus trachycaulus ssp. trachycaulus</i>	3
Critana	Thickspike Wheatgrass	<i>Elymus lanceolatus ssp. lanceolatus</i>	3
Timp	Northern Sweetvetch	<i>Hedysarum boreale</i>	4.5
Maple Grove	Lewis Flax	<i>Linum lewisii</i>	1

**Table 4. Seed Mix #6 for the Upper Tschuddi Project**

Variety	Common Name	Scientific Name	PLS/acre
UP Plateau	Sandberg bluegrass	<i>Poa secunda</i> ssp. <i>sandbergii</i>	0.5
San Luis	Slender Wheatgrass	<i>Elymus trachycaulus</i> ssp. <i>trachycaulus</i>	2
Sherman	Big Bluegrass	<i>Poa secunda</i> ssp. <i>ampla</i>	1
Bromar	Mountain Brome	<i>Bromus marginatus</i>	2
Maple Grove	Lewis Flax	<i>Linum lewisii</i>	1
Bandera	Rocky Mountain Penstemon	<i>Penstemon strictus</i>	0.5

2. LK Ranch would be assigned future maintenance responsibilities for these projects and the access routes to them through Cooperative Maintenance Agreements. Because this well will pump less than 15 gallons per minute it is considered exempt and no water rights will be filed by BLM.
3. If there is any spill or release of any chemical, oil, petroleum product, or solid waste during the well drilling, or pipeline and trough installation an LK Ranch representative would contact the BLM WRFO Hazardous Materials Coordinator at (970) 878-3800 and/or the Colorado Department of Public Health and Environment (CDPHE) at 1(877)518-5608.

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**3.1.3. BLM Required Conditions of Approval to Mitigate Impacts to Cultural and Paleontological Resources**

1. The applicant is responsible for informing all persons who are associated with the project that they would be subject to prosecution for knowingly disturbing archaeological sites or for collecting artifacts.
2. If any archaeological materials are discovered as a result of operations under this authorization, activity in the vicinity of the discovery would cease, and the BLM WRFO Archaeologist would be notified immediately. Work may not resume at that location until approved by the AO. The applicant would make every effort to protect the site from further impacts including looting, erosion, or other human or natural damage until BLM determines a treatment approach, and the treatment is completed. Unless previously determined in treatment plans or agreements, BLM would evaluate the cultural resources and, in consultation with the State Historic Preservation Office (SHPO), select the appropriate mitigation option within 48 hours of the discovery. The applicant, under guidance of the BLM, would implement the mitigation in a timely manner. The process would be fully documented in reports, site forms, maps, drawings, and photographs. The BLM would forward documentation to the SHPO for review and concurrence.

3. Pursuant to 43 CFR 10.4(g), the applicant 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 must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.
4. The applicant is responsible for informing all persons who are associated with the project operations that they would 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.
5. If any paleontological resources are discovered as a result of operations under this authorization, the applicant or any of his agents must stop work immediately at that site, immediately contact the BLM Paleontology Coordinator, and make every effort to protect the site from further impacts, including looting, erosion, or other human or natural damage. Work may not resume at that location until approved by the AO. The BLM or designated paleontologist would evaluate the discovery and take action to protect or remove the resource within 10 working days. Within 10 days, the operator would be allowed to continue construction through the site, or would be given the choice of either (a) following the Paleontology Coordinator's instructions for stabilizing the fossil resource in place and avoiding further disturbance to the fossil resource, or (b) following the Paleontology Coordinator's instructions for mitigating impacts to the fossil resource prior to continuing construction through the project area.

### **3.2. No Action Alternative**

The No Action Alternative constitutes denial of the Blacks Gulch Water Development Projects. Under this alternative neither of the proposed water development projects described in the Proposed Action would be constructed. There would continue to be minimal livestock grazing use in the areas surrounding the project sites. Implementation of the current grazing schedule would be limited to the forage available closer to water. Grazing pressure in those areas closer to water would remain higher.

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

No feasible alternative surface locations were identified for the proposed projects that would result in less impacts than the proposed location.

## 4. ISSUES

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The CEQ Regulations state that NEPA documents “must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail” (40 CFR 1500.1(b)). While many issues may arise during scoping, not all of the issues raised warrant analysis in an environmental assessment (EA). Issues would 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 direct, indirect, or cumulative impact, or where analysis is necessary to determine the significance of the impacts. The following sections list the resources considered and the determination as to whether they require additional analysis.

### 4.1. Issues Analyzed

The following issues were identified during internal scoping as potential issues of concern for the Proposed Action. These issues would be addressed in this EA.

- **Soil Resources:** Surface disturbance associated with drilling the well, trenching in water lines, placing troughs, and more concentrated livestock use around the new water sources would result in localized disturbance of soils. The location of the Upper Tschuddi water line and trough is an NSO-01 area due to the area having been delineated as having landslide prone soils.
- **Migratory Birds:** Construction-related determent of breeding and nesting efforts would likely affect 2 pair of birds, exclusively during the 2015 season. Construction associated disturbance should be complete during the beginning of nesting season, since the project would be completed in May before the grazing period begins in early June.
- **Terrestrial Wildlife:** Springs associated with the Black Gulch Allotment are situated in mountain big sagebrush and mixed shrub sites that various big game, small game and nongame throughout the year.
- **Livestock Grazing:** The proposed projects are would provide water sources in areas where it was previously lacking thus increasing the utility of the surrounding area for livestock grazing.
- **Access and Transportation:** The applicant’s access to the proposed water development sites has the potential to affect the existing condition of BLM motorized routes.

### 4.2. Issues Considered but not Analyzed

- **Air Quality:** The equipment that would be used for road improvements and water feature construction would result in emissions of engine exhaust and local, short-term (a few days at each location) dust production. No quantifiable change in air quality would occur with the Proposed Action.

- **Surface and Ground Water Quality:** The Proposed Action would result in minimal impacts on surface and ground water processes. Work on the road and water features would predominantly be completed by light construction equipment. This work should not result in any decline in surface and/or ground water quality from water driven non-point source pollutants created by surface erosion processes. In addition, improvement of the road surface should reduce existing rill erosion by the addition of water bars on uphill/downhill grades to intercept and redirect overland flow during precipitation events.
- **Floodplains, Hydrology, and Water Rights:** The Proposed Action is not located within a floodplain or encumbered by water rights associated with springs located in the Black Gulch drainage. With proper road construction and maintenance, minimal to no changes are expected in hydrologic processes within the Proposed Action and surrounding drainages. Because this well will pump less than 15 gallons per minute it is considered exempt and no water rights will be filed by BLM.
- **Geology and Minerals:** The Proposed Action is not located in areas identified in the White River ROD/RMP as available for coal, sodium, or oil shale leasing. It is not encumbered by mining claims or oil and gas leases. However, it is located in the area identified in the White River ROD/RMP as having high potential for oil and gas development. The nearest producing oil and gas well is over five miles southwest of the proposed water well sites. Construction and drilling of the proposed shallow water well along with the associated troughs and waterlines would have little to no impacts on the geologic mineral resources within the analysis area.
- **Wetlands and Riparian Zones:** The proposed projects would have no impact on wetland or riparian resources. From the proposed Scenery Gulch Section 31 well and trough the closest wetland and riparian resources are approximately 0.5 mile down slope on CPW lands where there is a reservoir associated with a sub-irrigated sedge/rush dominated valley bottom. This wetland area is not being negatively impacted by current livestock use levels. From the proposed Upper Tschuddi water line and trough project the closest wetland and riparian resources is approximately 0.7 mile down valley on CPW property where there is a developed spring and pond that both support herbaceous riparian vegetation. This site is not being negatively impacted by livestock use. Development of these water sources would allow increased livestock distribution and use throughout upland sites within approximately one mile radius of each project. Increasing the time cattle spend in the upland areas made available by the proposed water sources effectively reduces the amount of use they make in those areas closer to water sources.
- **Vegetation:** The valley bottom around the proposed Scenery Gulch well is a Foothill swale site dominated by native vegetation including snowberry (*Symphoricarpos spp*), serviceberry (*Amelanchier alnifolia*), basin big sagebrush (*Artemesia tridentata tridentata*), rabbitbrush (*Ericameria nauseosa*), basin wildrye (*Leymus cinereus*), western wheatgrass (*Pascopyrum smithii*), and other native grasses and forbs. Non-native grasses including Kentucky bluegrass (*Poa pratensis*) and some cheatgrass (*Bromus tectorum*) are also present.

The narrow valley site of the proposed Upper Tschuddi waterline and trough is a Brushy Loam site dominated by mountain big sagebrush (*Artemisia tridentata vaseyana*) and some basin big sagebrush, snowberry, serviceberry, western wheatgrass, other native bunch-grasses and forbs. There is some Kentucky bluegrass and a minor component of cheatgrass in the plant community as well.

Construction activities would remove less than 0.2 acre of vegetation for the placement of troughs, installation of water lines, well, and solar panels. Approximately five to ten acres immediately around each watering site would be subjected to heavier use as livestock graze, trail to and from water, and loaf around the area after drinking. The general areas within about a mile radius of each watering site would also experience increased grazing use. The additional water sources would result in increased distribution of livestock into areas previously too far from water to be accessed. Utilization of forage species in these areas would increase. Conversely, increased distribution would reduce grazing pressure on forage species in areas surrounding existing water sources.

Overall, impacts to vegetation from the development of these water sources would be reduced as grazing use is spread over a larger area. Grazing use associated with the current grazing schedules should be better distributed with livestock having access to larger areas for grazing and should not cause any negative shifts in plant community composition.

- **Invasive, Non-Native Species:** Noxious weeds including houndstongue (*Cynoglossum officinale*) occur throughout the general area and there are several infestations of spotted knapweed (*Centaurea maculosa*) and musk thistle (*Carduus nutans*) in the area as well. Spotted knapweed is spreading in association with travel on the old two-track in the upper ends of both the Scenery and Tschuddi drainages. Cheatgrass is also present at low levels in the general areas of the proposed projects. Implementation of the proposed water development projects should have minimal effect on the presence or spread of these weeds. Consistent herbicide treatment by CPW and the BLM is necessary to reduce the presence and spread of these noxious weeds.
- **Aquatic Wildlife:** Spring development would have little, if any, influence on eventual downstream contribution of water to downstream systems. The low production spring and its subtending channel are not presently or potentially capable of supporting even rudimentary aquatic communities. Spring contribution to downstream systems could be considered incremental, but realistically insignificant.

The Proposed Action would increase the number of water developments within the resource area and in the drainages to Blacks Gulch. There is already one other existing spring development on Middle Tschuddi Creek, which also feeds into Blacks Gulch. However, developing a well and pipeline in Scenery Gulch and redeveloping the existing spring development and pipeline in Tschuddi Gulch would have insignificant effects on downstream water availability, even when combining the existing spring development on Middle Tschuddi.

- **Special Status Animal Species:** There are no listed, proposed, candidate, or BLM-sensitive animals known to inhabit or derive important indirect benefit from these diminutive upland spring sources. Given that the proposed action would result in the depletion of an estimated 0.3358 acre-feet of water from within the Colorado River basin, this project falls under BLM Colorado's Programmatic Biological Assessment (PBA) for water depleting activities (excluding fluid minerals development) on BLM lands in the Colorado River basin in Colorado (BLM 2008).

In response to BLM's PBA, the U. S. Fish and Wildlife Service (FWS) issued a Programmatic Biological Opinion (PBO)(ES/GJ-6-CO-08-F-0010) on February 25, 2009, which concurred with BLM's determination that water depletions are "Likely to Adversely Affect" the Colorado pikeminnow, humpback chub, bonytail, and razorback sucker. Likewise, the project is also likely to adversely affect designated critical habitats for these endangered fish along the Green, Yampa, White, Colorado, and Gunnison rivers. However, the FWS also determined that BLM water depletions from the Colorado River Basin are not likely to jeopardize the continued existence of the Colorado pikeminnow, humpback chub, bonytail, or razorback sucker, and that BLM water depletions are not likely to destroy or adversely modify designated critical habitat.

A Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin was initiated in January 1988. The Recovery Program serves as the reasonable and prudent alternative to avoid jeopardy and aid in recovery efforts for these endangered fishes resulting from water depletions from the Colorado River Basin. The PBO addresses internal and external BLM projects including impoundments, diversions, water wells, pipelines, and spring developments. The FWS determined that projects that fit under the umbrella of the PBO would avoid the likelihood of jeopardy and/or adverse modification of critical habitat for depletion impacts to the Upper Colorado River Basin if they deplete relatively small amounts of water (less than 100 AF) and BLM makes a one-time contribution to the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (Recovery Program) in the amount equal to the average annual acre-feet depleted by each project. The PBO instructed BLM to make an annual payment to the National Fish and Wildlife Foundation (NFWF) to cover all BLM authorized actions that result in water depletions. The Blacks Water Gulch Development Project would deplete 0.3358 AF annually. The depletion fee for this project is \$6.89. This project has been entered into the White River Field Office water depletion log which would be submitted to the Colorado State Office (COSO) at the end of the Fiscal Year. The COSO is responsible for paying depletion fees based on the annual statewide total.

- **Hazardous or Solid Wastes:** There are no known hazardous materials, wastes, or dump sites known within the allotment. The proposed well drilling equipment would use regulated materials and would generate some solid and sanitary waste. The potential for harm to human health or the environment associated with spills of fuel, oil and/or hazardous substances during drilling operations is minimal. The Proposed Action

addresses appropriate notifications that would occur in the case of a hazardous material event. Future applications of herbicides would be in compliance with BLM requirements and allowed under a separate authorization.

- **Cultural Resources**: A cultural resource inventory was conducted on October 8, 2014 for the proposed project and yielded no new cultural resources. Given the absence of cultural resources in the project area and in the general region, no known historic properties would be affected by the Proposed Action.
- **Paleontological Resources**: No paleontological resources were observed in the proposed project areas. Given the conditions to mitigate impact to paleontological resources, this undertaking would not affect any known paleontological resources.
- **Native American Religious Concerns**: 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.
- **Visual Resources**: The area where the Proposed Action is located is within a Class III Visual Resource Inventory (VRI) area and has a Class III Visual Resources Management (VRM) Objective. The Proposed Action would not change or affect the VRI class and would meet the VRM Class III objective of partially retaining the existing character of the landscape.
- **Recreation**: The Proposed Action may indirectly affect big game hunting opportunities by providing new water sources that may be used by big game during big game hunting seasons (late August through mid-November). However, these new water sources may not actually have water during the big game hunting seasons because the livestock use in this area is planned from mid-March to mid-June of each year. Whether there is water or not at these locations during the big game hunting seasons, these new water developments are likely to have an overall insignificant effect on big game hunting opportunities because of the vast amount of public lands available for hunting in CPW Game Management Unit 11 and the variety of unknown factors that determine big game distribution during the big game hunting seasons.
- **Social and Economic Conditions**: There would not be any substantial changes to local social or economic conditions.
- **Environmental Justice**: According to the most recent Census Bureau statistics (2010) and guidelines provided in WO-IM-2002-164, there are no minority or low income populations within the WRFO.
- **Lands with Wilderness Characteristics**: There are no lands with wilderness characteristics that would be affected the Proposed Action

- **Prime and Unique Farmlands:** There are no prime and unique farmlands within the project area.
- **Wild Horses:** The proposed water development projects occur in the Blacks Gulch allotment, and are more than ten miles from the Piceance-East Douglas Herd Management Area (PEDHMA). There are several barriers (allotment boundary fences, highway frontage fences, and State Highway 64) between the project area and the PEDHMA. There would be no related impacts to the wild horses in the PEDHMA from this project.
- **Wild and Scenic Rivers:** There are no Wild and Scenic Rivers within the WRFO.
- **Wilderness:** There are no designated Wilderness areas or Wilderness Study Areas located near or that would be affected the Proposed Action.
- **Scenic Byways:** There are no Scenic Byways within the project area.
- **Forestry and Woodland Products:** There are no forestry or woodland products that would be impacted by the Proposed Action.
- **Areas of Critical Environmental Concern:** There are no Areas of Critical Environmental Concern in or around the project area.
- **Special Status Plant Species:** There are no special status plants or plant habitat present in the project area.
- **Fire Management:** The Proposed Action would not impact the Northwest Colorado Fire Program Area Fire Management Plan in an adverse way. The proposed water development projects are in drainage bottoms where the increase in grazing activities would limit the fine fuel loading. This Proposed Action would reduce the chances of experiencing large wildfires.
- **Realty Authorizations:** There are no land use authorizations present in the project areas.

## 5. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

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### 5.1. General Setting & Access to the Project Area

The proposed water development projects are in the Blacks Gulch allotment #06612, which is approximately 20 miles northwest of Meeker (see Exhibit A). The projects would be in the Scenery Gulch and Tschuddi Gulch pastures, which are the two uppermost pastures of this allotment. Elevation in these pastures range from around 6,300 feet at the southern edge up to

nearly 8,100 feet at the northern end. The pastures are in a zone that receives 12-16 inches of precipitation annually, more than half of it in the winter as snow. Plant communities in the affected valley bottoms tend to be mid- to late-seral shrub communities with mostly native grasses and forbs interspersed throughout. Topography in this area is a series of gentle valley bottoms between steep ridges creating long fingers of gentler sloped forage areas where livestock make the most grazing use. The Scenery Gulch well and trough location is in the bottom of a large side draw off of the main Scenery Gulch drainage. The Tschuddi water line and trough site is in the valley bottom near the head of Tschuddi Gulch. Both sites are at least one half mile from other water sources and are accessible from existing two-track roads.

## 5.2. Assumptions for Analysis

Development of these water sources would create new areas of livestock concentration in the 10 to 15 acres surrounding each water trough and would increase livestock distribution and use throughout upland sites within approximately a one mile radius of each project.

If these water developments are not implemented the grazing use in these pastures would be unchanged. While there are currently no specific resource issues, implementation of the projects would improve livestock management by increasing forage areas available to livestock and reduce grazing pressure in those areas closer to water.

LK Ranches has coordinated with the well driller to have both projects completed and functional by the time livestock enter these pastures in June 2015. Soils should be dry enough to allow access to both sites by early May. Well drilling, trough, and water line installation should take 10 to 14 days.

## 5.3. Cumulative Impacts Analysis

### 5.3.1. Analysis Areas

The geographic extent of cumulative impacts varies by the type of resource and impact. The timeframes, or temporal boundaries, for those impacts may also vary by resource. Different spatial and temporal cumulative impact analysis areas (CIAAs) have been developed and are listed with their total acreage in Table 5.

**Table 5. Cumulative Impact Analysis Areas by Resource**

Resource	CIAA	Total CIAA Acreage	Temporal Boundary
Geology and Minerals; Livestock grazing, Vegetation, and Soils	Those areas in the Scenery Gulch and Tschuddi pastures with slopes less than 35 percent. These areas were chosen	Approximately 4,500 acres (2,050 acres in the Scenery Gulch pasture and 2,460 acres in the Tschuddi pasture).	Life of the projects assuming they are maintained in a functional condition.

	because they are accessible to livestock and are where most grazing occurs. Slopes steeper than 35 percent are less used by livestock.		
Migratory birds, Terrestrial wildlife	Portions of the allotment where birds and wildlife may display construction-related avoidance behavior or impacts to nesting efforts may occur.	Less than 2 acres (0.5 acres surrounding each trough site and along the pipeline corridor)	Construction period for the 2015 season.

### ***5.3.2. Past, Present, and Reasonably Foreseeable Future Actions***

Cumulative effects are defined in the CEQ regulations (40 CFR 1508.7) as “...the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.”

Cumulative impacts from oil and gas development within the WRFO were disclosed in the 1996 White River Resource Area Proposed RMP and Final EIS. A Reasonably Foreseeable Development (RFD) scenario compiled for the 1996 EIS estimated that oil and gas development would occur primarily south of Rangely, would consist of approximately 1,100 single well pads and would result in an estimated surface disturbance of 11,000 acres (10 acres per pad including associated infrastructure).

In 2012 the BLM published the Oil and Gas Development Draft RMP Amendment/EIS which considered changes in the location, type, and level of oil and gas development within the resource area. These projects are located outside of the MPA. The BLM assumed that only 5 percent of oil and gas development would occur outside of the MPA and that it would be primarily limited to single-well pads.

Other past, present, and reasonably foreseeable actions in the project area include livestock grazing and associated range improvement projects, vegetation treatments, and both wildfires and prescribed burns. Recreation use is characterized by dispersed camping, OHV use, and hunting.

Under the No Action Alternative there are currently no specific resource issues that would result in any cumulative effect without the implementation of the proposed projects.

## **5.4. Soil Resources**

### **5.4.1. Affected Environment**

The proposed Scenery Gulch location occurs in Glendive fine sandy loam soils with Foothill Swale range site associated. This site is neither classified as landslide prone nor as having sensitive soils. The site of the proposed Upper Tschuddi Gulch waterline and trough lies within Jerry-Thornburgh-Rhone complex soils of 8-65 percent slope. During field inspection the general valley bottom was shown to have 8-10 percent slopes. This area has been classified as landslide prone but there are no fragile soils associated with the site. The area surrounding this project site is listed in the White River ROD/RMP as a No Surface Occupancy (NSO-01) however the installation of a shallow waterline through a densely vegetated gentle valley bottom and placement of a trough adjacent to an existing large old water catchment are not expected to impair the overall stability of this draw. The waterline associated with the Upper Tschuddi trough would be trenched in through dense native vegetation.

### **5.4.2. Environmental Consequences – Proposed Action**

#### **Direct and Indirect Impacts**

During construction there would be a minor amount of soil disturbance associated with drilling the well, trenching in the waterlines (including overflow lines), and leveling sites for placement of the water troughs. These impacts would be direct and isolated to the project area. Trenching for waterlines would be to an average depth of 18 inches. The width of the disturbance associated with trenching in these lines would also be about 18 inches. The entire waterline route would be through a densely vegetated bottom with deep soils. Due to the minimal extent of disturbance it is expected that the entire waterline would re-vegetate and become indistinguishable from undisturbed soils within a year or two due to favorable growing conditions in this area. Where the pipeline crosses a livestock trail and the shallow drainage bottom it may become exposed in the future if there is erosion at these points. Periodic repairs may be needed in the future to replace damaged pipe or exposed areas. Future repairs would require similar construction equipment and access to the waterline and would re-disturb those sections.

An estimated 10 to 15 acre area surrounding each new water source would have increased livestock use as they trail to and from the water trough, congregate, and trample around the new water sources. This disturbance would occur annually but would be short term due to the short grazing period in these areas. Livestock are scheduled in the Scenery pasture for 21 days and are disbursed throughout the pasture during this timeframe so the intensity of use is less. In the Tschuddi pasture livestock are also scheduled for 21 days but during that time frame they are rotated through three distinct use areas so use around this trough is expected to be around seven days. Vegetation at both sites would be expected to recover annually. Annual freeze/thaw events would be expected to moderate general soil compaction surrounding each trough site though over time these sites would likely experience some degree of soil compaction. Conversely, providing these additional water sources would reduce trailing to and from the existing water sources approximately 0.5 mile and 0.75 mile respectively down the draws compared to the

trailing associated with the No Action Alternative. Whether there would be an overall increase or decrease in trailing and trampling as compared to the No Action Alternative is difficult to determine. However, since the proposed water sources are closer to forage and cover for cattle, impacts would likely be less than what may be expected under the No Action Alternative.

### **Cumulative Impacts**

The main effect of the proposed projects would be improved livestock distribution. There are currently no specific soil resource issues that would result in any cumulative effect with the implementation of the proposed projects.

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### **5.4.3. Environmental Consequences – No Action Alternative**

#### **Direct and Indirect Impacts**

Under this alternative the proposed projects would not be installed and there would be no associated surface disturbance. Livestock would continue to trail to existing water sources, make heavier use in those areas and make minimal use in the areas surrounding the proposed water developments.

#### **Cumulative Impacts**

Under the No Action Alternative there are currently no specific soil resource issues that would result in any cumulative effect without the implementation of the proposed projects

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### **5.4.4. Mitigation Measures and Residual Impacts**

Where the Upper Tschuddi water line is trenched in applying seed and laying the uprooted and broken off shrubs back over the trenched line would protect the disturbed soil surface, provide protection to allow seeded plants to establish, and make the disturbance less visible.

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## **5.5. Migratory Birds**

### **5.5.1. Affected Environment**

A large number of migratory birds fulfill nesting functions throughout the mountain and mixed shrublands encompassing the proposed projects during mid-May to early August. The U.S. Fish and Wildlife Service (USFWS) compiled a list of Birds of Conservation Concern (BCC) to identify migratory and non-migratory bird species, not including those already designated as federally threatened or endangered, which may become candidates for listing under the Endangered Species Act (ESA) without conservation actions (USFWS 2008). The Brewer's sparrow ranks on this list. All of these species of higher concern are typical and widely distributed at appropriate abundance within the extensive sagebrush and mountain shrubland habitats of the Resource Area and the region.

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### **5.5.2. Environmental Consequences – Proposed Action**

#### **Direct and Indirect Impacts**

Construction-related disruption of nest attempts would most likely occur within the 0.5 acre surrounding each trough site and along the pipeline corridor. Total habitat disturbed by the Proposed Action would amount to less than 1.5 acres. Assuming the two sites would be constructed before the beginning of the grazing season (early June), the Proposed Action would likely not affect the breeding efforts of any birds in this area. If construction continues past mid-May, the Proposed Action would likely involve less than two pair of birds, which should complete their nesting functions by mid-July. Birds occupying these narrow upland valleys are generally sagebrush or mixed shrub associates (e.g., vesper sparrow and green-tailed towhee), which are abundant and widely distributed in this Resource Area. Overland equipment travel could ostensibly physically destroy nests or damage nest substrate, but the likelihood of involving any but a very few nests, is low. Equipment passage would be short term and transient and would have little effective influence on nest outcomes.

Livestock use would be more concentrated around these water sources. Reductions in ground cover would be expected up to 400 meters of the water source, with more pronounced reductions (denuding) within 100 meters. Current use occurs prior to and throughout the early portions of the migratory bird breeding season. There would be potential for nest trampling (particularly ground-nesting species) in and around the water tanks. A reduction in nest densities would be expected in the vicinity of the proposed tanks.

#### **Cumulative Impacts**

The Proposed Action in the Blacks Gulch allotment should be complete by the time migratory bird nesting season begins. Even if construction does affect early season nesting efforts, it would likely only affect two pair of birds. Construction related deterrent or nest destruction would only occur during the 2015 season, and would not affect future breeding and nesting efforts in this area. The spring developments would cause an insignificant loss of sagebrush and mountain shrub nesting habitat and may actually improve nesting habitat in the Scenery Gulch and Tschuddi Gulch pastures by helping to increase the distribution of livestock and positively influence herbaceous ground cover conducive to successful brood-rearing efforts.

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### **5.5.3. Environmental Consequences – No Action Alternative**

#### **Direct and Indirect Impacts**

There would be no equipment travel or construction activities that could disrupt breeding bird efforts.

#### **Cumulative Impacts**

Bird breeding and nesting efforts would remain at current quantities.

## **5.6. Terrestrial Wildlife**

### **5.6.1. Affected Environment**

Springs associated with the Black Gulch Allotment are situated in mountain big sagebrush and mixed shrub sites that are classified by Colorado Parks and Wildlife (CPW) as mule deer general winter range. The spring sources are used variously by big game as a water source throughout the year. The Scenery Gulch well site supports mule deer and elk during the fall and winter months. The Upper Tschuddi spring site supports mule deer primarily during the fall and winter months and elk from summer through winter.

There is limited suitable substrate (older aged woodlands) in the vicinity of the project area to support the nesting functions of woodland raptors.

Dusky grouse are relatively common across the top of Colorow and Dick Ridges, as well as the unnamed ridges between them, during the nesting and brood-rearing season. Nesting commences in mixed sagebrush and serviceberry shrublands in mid to late April with most broods complete by late June. The project area within the Tschuddi Gulch pasture provides this desired habitat for dusky grouse. Nest success and brood survival are positively influenced by well-developed herbaceous ground cover. The availability of supplemental herbaceous ground cover intermingled with woody cover enhances microclimatic conditions at the nest site as well as aiding in nest and brood concealment through mid-August.

Small mammal populations and distribution are poorly documented; however, the seven species potentially occurring on this allotment are widely distributed throughout the State and the Great Basin or Rocky Mountain regions. All of these upland associated species display broad ecological tolerance and are documented from habitats ranging from foothill to alpine sites. No narrowly distributed or highly specialized species or sub-specific populations are known to occur in this allotment.

### **5.6.2. Environmental Consequences – Proposed Action**

#### **Direct and Indirect Impacts**

Spring development would not involve construction of any new roads or upgrade of existing roads. The existing faint two-track, which provides access to the Scenery Gulch well site, is excluded from public use by private land holdings. The Upper Tschuddi Gulch spring site water line and trough site would be accessed by an existing two-track road. Although this road does require maintenance, such as filling eroded areas, construction and future maintenance would be kept to a minimum and would not involve road expansion.

Since the water troughs would only be operational during the summer grazing period, the development of a well and redevelopment of the spring would have little effective influence on the availability of water for seasonal big game use. However, development of reliable water sources is viewed as an important grazing management tool that allows more consistent application of deferrals and rotations that have been designed to improve residual ground cover

and understory density and composition, which would ultimately improve the utility of wildlife habitat offered by these shrublands.

By providing additional upland water sources in the Scenery Gulch and Tschuddi Gulch pastures, grazing intensity in the vicinity of the water sources would increase. Use commencing in May would be expected to progressively reduce the density and height of herbaceous ground cover coincident with reproductive seasons of resident small game and nongame wildlife. Although this represents a localized adverse impact, in a larger sense, widening livestock distribution within the pasture would help moderate use in current areas of concentration and reduce overall intensity throughout the pasture, such that the overall suitability and utility of wildlife cover and forage derived from herbaceous ground cover would remain static or improve slightly. Reducing use intensity during the growing season should contribute to improvement in the vigor and composition of native grasses and forbs—a longer term influence that would be expected to enhance post-grazing plant recovery (e.g., redevelopment of ground cover for small mammal winter use/grouse and deer fall use) and promote plant assemblages that are accepted as providing enhanced forage and cover properties for these wildlife communities.

The area within 0.5 mile of the trough in the Tschuddi Gulch pasture is less suited as dusky grouse nest and brood habitat. Since there is already a spring development in this area, additional disturbance would be minimal. Dusky grouse may already avoid the 10-15 acres surrounding the existing spring due to impacts from livestock concentration. Adequate herbaceous cover is important to dusky grouse during the nesting and brood rearing season. Desirable habitat is composed mainly of native bunchgrasses and associated forbs (Mussehl 1963), which can be negatively impacted by livestock induced erosion and trampling surrounding troughs.

The ridgelines surrounding Tschuddi Gulch and the Gray Hills to the northeast provide alternate suitable dusky grouse nesting habitat on their extensive, moderately sloped sagebrush and serviceberry dominated ridgelines. Additionally, portions of the Tschuddi Gulch pasture may better serve dusky grouse nesting functions after livestock distribution increases as a result of the Proposed Action.

Since the water source already exists in Tschuddi Gulch, there would be no notable alteration of grazing intensity in the Tschuddi Gulch pasture. However, by providing consistent, concentrated sources of water outside the channels in both the Tschuddi and Scenery Gulch pastures, it is expected that the persistence and severity of trampling damage in the channels would be reduced. Relieving damage to in-channel and adjacent moist soil areas should prompt localized and downstream improvements in desired vegetative growth and composition, which could be used as a direct and indirect source of forage to all area wildlife, especially by deer and grouse during the late summer and fall.

The use of vehicles to develop these sites would necessarily involve travel over pre-existing roads. Since use of the faint two-track in Scenery Gulch is precluded by private land holdings and the two-track in Tschuddi Gulch already exists, there should be minimal to no increase in subsequent vehicular use in this area. These factors should help to minimize vehicle associated

impacts to big game, such as heightened behavioral avoidance and indirect habitat loss with increasing road density and use.

### **Cumulative Impacts**

The Proposed Action would, by incrementally moderating overall intensity of use on herbaceous ground cover and facultative riparian growth along spring channels, enhance the development of herbaceous understories that big game, small game, and nongame alike derive important values as forage and cover.

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### **5.6.3. Environmental Consequences – No Action Alternative**

#### **Direct and Indirect Impacts**

The No Action Alternative would have no influence on the availability of water for wildlife use. It is presumed that channel vegetation and the limited amount of wildlife use associated with these sites would remain unchanged under this alternative.

#### **Cumulative Impacts**

The No Action Alternative would provide no relief of grazing and trampling damage in the channels or bottomlands associated with the spring channels, floodplains and larger subtending valleys in Tschuddi and Scenery Gulches. This alternative would provide no mechanism to moderate overall livestock grazing effects in the two affected pastures.

Approximately 168 acres of suitable dusky grouse nesting and brood rearing habitat in the Tschuddi Gulch pasture would remain grazed at current (i.e., lower than Proposed Action) levels through the early summer months. However, the slopes and ridgelines surrounding the project area provide suitable nesting and brood rearing habitat and the improvements to the spring may eventually serve to enhance the early seral forb cover and composition desired for summer brood rearing.

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## **5.7. Livestock Grazing**

### **5.7.1. Affected Environment**

The proposed water development projects would occur in the Scenery Gulch and Tschuddi Gulch pastures of the Blacks Gulch allotment (06612). This allotment, currently permitted to LK Ranch, has seven pastures that are grazed by cattle typically from mid-March to mid-June in an alternate year rotation. The Tschuddi Gulch pasture currently has three distinct use areas. The Scenery and Tschuddi pastures are the highest elevation pastures in the Blacks Gulch allotment and grazing is scheduled as outlined in Tables 1 and 2.

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### **5.7.2. Environmental Consequences – Proposed Action**

#### **Direct and Indirect Impacts**

The proposed water development projects would improve livestock management and distribution by providing dependable water sources during the period of scheduled livestock use in areas that currently lack water within a reasonable travel distance for livestock. Approximately 200-300 accessible acres within about a one mile radius surrounding each of the water developments would have increased utility for livestock grazing as a result of these water sources. Estimating increased grazing use on an average of 250 acres around each project and estimating an average of 18 acres per AUM, roughly 14 AUMs of forage would become available to livestock in the area surrounding each project. With increased distribution the overall intensity of grazing would be reduced slightly. In the Scenery Gulch pasture the increased distribution would reduce grazing pressure in the main valley bottoms where cattle currently make the majority of their use. Where the Tschuddi Gulch pasture is divided into three distinct use areas, the proposed water line and trough would directly improve livestock distribution in the upper-most use area and would indirectly allow for improved livestock management in the other two use areas as well.

#### **Cumulative Impacts**

Implementation of the Proposed Action would increase the area available to livestock for grazing in the Scenery Gulch and Tschuddi Gulch pastures of the Blacks Gulch allotment and would incrementally improve livestock management and would moderate the overall intensity of grazing use on preferred forage species in these pastures.

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### **5.7.3. Environmental Consequences – No Action Alternative**

#### **Direct and Indirect Impacts**

Under the No Action Alternative, these two water developments would not be implemented. Livestock would continue to graze in the areas currently available within a reasonable distance to water. The areas surrounding the proposed trough sites would continue to be minimally used by livestock, especially in the upper-most use area of the Tschuddi Gulch pasture. The areas closer to existing water would continue to be grazed as in the past.

#### **Cumulative Impacts**

The No Action Alternative would result in livestock grazing in the Scenery Gulch and Tschuddi Gulch pastures as it has been in the past. Livestock distribution would continue to be limited resulting in less balanced grazing intensity with some areas being minimally utilized if at all. Impacts to the livestock operator would be the continued need to actively and repeatedly drive cattle toward the areas further from water. There would continue to be limited opportunity to utilize the forage in the areas surrounding the proposed troughs. This alternative would provide no mechanism to moderate overall livestock grazing effects through improved distribution in the two affected pastures

## **5.8. Access and Transportation**

### **5.8.1. Affected Environment**

Public access to the Scenery Gulch water development site is by pedestrian or equestrian travel only and would require traveling approximately 3 miles from the gate at the southern end of the CPW boundary in Scenery Gulch or by pedestrian or equestrian cross country travel for approximately 1.5 miles from the motorized BLM routes located to the northeast of this site. The approximately 0.25 mile route from the CPW/BLM boundary to the water development sites is a faint two-track route.

Public access to the Tschuddi Gulch water development site is approximately 2 miles by pedestrian or equestrian travel from the CPW gate in Tschuddi Gulch or by 6.5 miles of motorized travel from the CPW gate in Tschuddi Gulch up to BLM Road 1515 and then onto BLM Road 1710 to reach this site. BLM Road 1710 has some badly eroded sections with ruts and is somewhat overgrown by vegetation to accommodate full size vehicle travel in some areas.

Motorized vehicle travel in this area is limited to existing routes from October 1 through April 30 of each year according to the White River ROD/RMP. The CPW property adjacent to the Proposed Action was recently acquired from private ownership and was opened to public use in 2013 as the Colorow Mountain State Wildlife Area.

### **5.8.2. Environmental Consequences – Proposed Action**

#### **Direct and Indirect Impacts**

The applicant's access to the proposed water development sites has the potential to affect the existing condition of BLM motorized routes. Proposed access and travel to the Scenery Gulch site during construction activities includes use of 0.25 miles of a faint two-track route by light trucks, a dump truck, a back hoe and potentially a bull dozer. This use has the potential to change this route from a faint two-track to a more recognizable route with more exposed soils than currently exist. In order to prevent a change in the existing character of this route it is recommended that construction activities cease when soils or roads surfaces become saturated to a depth of three inches unless approved by the Authorized Officer. Once constructed, travel to and from this water development by the applicant is likely to result in a few motorized trips per year by all-terrain vehicles or light trucks and is not expected to result in any substantial changes to this route. Future maintenance of this access route is proposed to be assigned to the permittee as part of this range improvement project. Route maintenance activities are limited to retaining the current character of the route. The Proposed Action includes filling in deeply eroded places as needed but no general blading of the route. This type of route maintenance is likely to occur infrequently if at all. Overall, this portion of the Proposed Action is designed to result in no new changes to the BLM travel and transportation

Proposed access and travel to the Tschuddi Gulch site during construction activities includes use of approximately 0.5 miles of BLM Road 1710. Improvements proposed on this portion of this route include filling in deeply eroded areas and installing water bars as needed to improve drainage on this route. This is likely to improve the condition of this route and is beneficial to

the public. Because these route maintenance activities and construction of the water development is planned before mid-May 2015, there is potential for damage to occur to this route when soils are saturated. In order to prevent any further degradation of this route, it is recommended that route maintenance and water development construction activities cease when soils or roads surfaces become saturated to a depth of three inches unless approved by the Authorized Officer. Future maintenance of this access route is proposed to be assigned to the permittee as part of this range improvement project. This portion of the Proposed Action is likely to result in this portion of this route being maintained in better condition than its current condition and is a benefit to the public and the BLM travel and transportation system.

### **Cumulative Impacts**

Because the Scenery Gulch motorized access route has no public motorized access and is designed to result in no change to the character of the route, there are no cumulative effects identified as a result of implementing that portion of the Proposed Action. The Tschuddi Gulch access includes improving approximately 0.5 miles of BLM Road 1710 and assigning the maintenance of this portion of this route to the permittee. Combined with public use of this route, this portion of the Proposed Action is likely to slightly improve access to public lands in this area.

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### ***5.8.3. Environmental Consequences – No Action Alternative***

#### **Direct and Indirect Impacts**

Because the Scenery Gulch motorized access route has no public motorized access, there would be no effects to the travel and transportation system or public access as a result of implementing this alternative for this route. By not improving the 0.5 mile portion of BLM Road 1710, there would be no improvements to the travel and transportation system or change in public access as a result of implementing this alternative in Tschuddi Gulch. Overall this alternative results in no impacts or improvements to the travel or transportation system.

#### **Cumulative Impacts**

By not improving a portion of BLM Road 1710 or assigning maintenance of this portion of this route to the permittee, this route would likely deteriorate with erosion and continued use by the public. This may over time result in slightly reducing public motorized access in this area.

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### ***5.8.4. Mitigation Measures and Residual Impacts***

All construction activity shall cease when soils or roads surfaces become saturated to a depth of three inches unless approved by the Authorized Officer.

## **5.9. Colorado Standards for Public Land Health**

In January 1997, the Colorado BLM approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, special status species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. If there is the potential to impact these resources, the

BLM would note whether or not the project area currently meets the standards and whether or not implementation of the Proposed Action would impair the standards.

Refer to CO-110-2007-030-EA page 14 for a full description of the following summaries. In the Blacks Gulch allotment approximately 2,800 acres, about 13 percent of the public land, were not meeting Land Health Standards for Upland Soils (Standard 1), Plant and Animal Communities (Standard 3), and Special Status, T&E species (Standard 4). The majority of riparian systems were also not meeting standards (Standard #2). Historic and recent livestock grazing practices were identified as the general causal factors. Grazing during the critical growth period, heavy utilization of forage species, altered and degraded plant communities, excessive overland flow and associated erosion, and degraded soils were identified as specific concerns in these areas.

There were 231 acres in the Scenery Gulch pasture and 165 acres in the Tschuddi Gulch pasture previously identified as not meeting Standards 1, 3, and 4. Both project proposals coincide with those identified areas.

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#### ***5.9.1. Standard 1 – Upland Soils***

Current livestock grazing schedules in the entire Blacks Gulch allotment has been reduced both in intensity and duration since the most recent Land Health Assessments. While the proposed projects do occur within areas previously identified as not meeting this standard, under the current grazing schedules and management (reduced intensity and reduced duration of livestock use) the proposed water development projects are not expected to cause negative impacts to soils in these areas.

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#### ***5.9.2. Standard 2 – Riparian Systems***

There are no riparian systems nearby that would be affected by the project proposals.

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#### ***5.9.3. Standard 3 – Plant and Animal Communities***

Similar to Standard 1, the modified grazing schedules and livestock management since the last Land Health Assessment have resulted in improved conditions throughout the Blacks Gulch allotment. Implementation of the proposed water developments under the current grazing schedules and management is not expected to negatively affect plant or animal communities in these areas for the same reasons of reduced intensity and duration of grazing.

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#### ***5.9.4. Standard 4 – Special Status Species***

There are no special status animal species that derive important use from the project area. Water depletions associated with the project are covered under the BLM Colorado's Programmatic Biological Assessment (PBA) for water depleting activities (excluding fluid minerals development) on BLM lands in the Colorado River basin in Colorado (BLM 2008). The proposed water developments are not anticipated to detract from the continued meeting of Standard 4.

### 5.9.5. Standard 5 – Water Quality

Implementation of the proposed water developments under the current grazing schedules and management is not expected to negatively affect Standard 5.

## 6. SUPPORTING INFORMATION

### 6.1. Interdisciplinary Review

Table 6. List of Preparers

Name	Title	Area of Responsibility	Date Signed
Keith Sauter	Hydrologist	Air Quality; Surface and Ground Water Quality; Floodplains, Hydrology, and Water Rights; Prime and Unique Farmlands	12/9/2014
Heather Stewart	Wildlife Biologist	Special Status Animal Species, Migratory Birds, and Aquatic and Terrestrial Wildlife	11/20/14
Mary Taylor	Rangeland Management Specialist/Project Lead	Vegetation, Invasive, Non-Native Species, Wild Horses, Livestock Grazing, Soil Resources, Wetlands and Riparian Zones, Hazardous or Solid Wastes, Social and Economic Conditions,	11/5/14
Matthew Dupire	Ecologist	Special Status Plant Species, Forestry and Woodland Products, Areas of Critical Environmental Concern	12/2/2014
Brian Yaquinto	Archaeologist	Cultural Resources, Paleontological Resources, Native American Religious Concerns	12/1/2014
Aaron Grimes	Outdoor Recreation Planner	Visual Resources, Lands with Wilderness Characteristics, Recreation, Access and Transportation, Wilderness, Scenic Byways	12/11/2014
Paul Daggett	Mining Engineer	Geology and Minerals	12/8/2014
Kyle Frary	Fire Management Specialist	Fire Management	12/11/2014
Stacey Burke	Realty Specialist	Realty Authorizations	12/15/2014
Heather Sauls	Planning & Environmental Coordinator	NEPA Compliance	1/20/15

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

- Bailey Franklin, Colorado Parks and Wildlife, August 11, 2015
- Lenny Klingsmith, LK Ranches, August 11, 2015
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## **6.3. References**

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