

**United States Department of the Interior
Bureau of Land Management
Royal Gorge Field Office
3028 E. Main Street
Cañon City, CO 81212**

Environmental Assessment

Oil Well Flats – New Trail Construction

DOI-BLM-CO-F02-2014-0027 EA

December, 2014



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CHAPTER 1 - INTRODUCTION

1.1 IDENTIFYING INFORMATION

CASEFILE/PROJECT NUMBER (optional):

PROJECT TITLE: Oil Well Flats – New Trail Construction

PLANNING UNIT: Garden Park

LEGAL DESCRIPTION: 6th P.M. T. 17 S., R.70 W. Sections 27, 34, and 35, T. 18 S., R. 70 W., Section 3

APPLICANT: Bureau of Land Management

1.2 INTRODUCTION AND BACKGROUND

BACKGROUND: This EA has been prepared by the BLM to analyze the impacts of adding non-motorized trails to the Oil Well Flats Trail system. The decision record of the 2004 Gold Belt Travel Management Plan called for designating several roads as non-motorized trails and also constructing new trails to create a trail system. The 2009 Shaws Park/Garden Park Travel Management Plan expanded on the concept of non-motorized trails in relation to the acquisition of the Dilley Property allowing for more trail connections. Over the past four years the BLM in conjunction with a variety of volunteer groups and youth corps crews have been slowly implementing the concepts outlined in these plans. In several instances it was determined that the existing route identified in the plan did not provide an adequate trail experience or was eroding due to steep grades. In these instances a trail was constructed and the route was abandoned and rehabilitated.

Recreation use in this area has continued to increase as the mileage of available trails has grown to provide adequate opportunities that users are looking for. From 2009 to 2013 average annual daily traffic increased from 8 to 12. This demand is anticipated to increase as awareness of the trail network expands. Feedback provided to the BLM includes requests for more loop opportunities including beginner options and closer opportunities to town. The grazing operator in the area has also requested that more be done to separate grazing from recreation use to avoid conflicts. The original plans are 60% implemented with approximately 4 more miles of trail slated for construction in the upcoming year that would partially respond to this feedback.

1.3 PURPOSE AND NEED

The overall recreation management goal for the trail network is to provide local and regional trail based opportunities providing mileage sufficient for diversity in difficulty, length, and routes while at the same time mitigating impacts to other resources. The purpose of the action is to

better meet the trail network goal providing more opportunities including beginner/intermediate loop options and connections closer to Canon City. Another purpose of the action is to implement strategies that attempt to reduce conflicts between recreation and grazing by separating the uses as much as possible.

The need for the action stems from compliance with the multi-use and sustainable yield mandate of section 302 of the Federal Land Use and Policy Management Act (FLPMA) and resource objectives as defined in the Royal Gorge RMP of 1996.

1.4 DECISION TO BE MADE

The BLM will decide whether to implement the proposed Oil Well Flats – New Trail Construction project based on the analysis contained in this Environmental Assessment (EA). This EA will analyze the impacts of adding additional trails to the Oil Well Flats trail network. The BLM may choose to: a) implement the project as proposed, b) implement the project with modifications/mitigation, c) implement an alternative to the proposed action, or d) not implement the project at this time.

1.5 PLAN CONFORMANCE REVIEW

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

Name of Plan: Royal Gorge Resource Management Plan

Date Approved: 05/13/1996

Decision Number/Page: 5-86, 5-87, 5-90

Decision Language:

5-86: Recreation will be managed to provide for a variety of recreational opportunities and settings; additional opportunities for mountain biking, hiking, off-highway vehicle use, interpretation, and horseback riding; facility development will be accomplished to reduce user conflicts and to improve visitor health and safety.

5-87: Recreation on the larger part of this sub-region will be managed intensively in a special recreation management area.

5-90: Various actions will occur to enhance recreation: upland recreation opportunities emphasizing a balance between resource protection and tourism; coordination with various volunteer and user groups; monitoring and visitor contacts to ensure visitor safety, resource protection, and visitor information availability; provide for acquisitions

or easements to enhance water based recreation, mountain biking, off-highway vehicle use, hiking horseback riding, hunting, and natural/cultural resource interpretation.

Name of Plan: Gold Belt Travel Management Plan

Date Approved: 06/02/2004

Decision Number/Page: 23, 28

Decision Language:

Garden Park Sub-unit (#5) - The desired future condition for the Garden Park sub-unit is to enhance and protect the area's special plant, fossil resources, and scenic geological features, while allowing compatible recreation uses. Management objectives for this sub-unit include:

- Protect fossil resources
- Protect sensitive plant species
- Protect the unusual and highly scenic geologic features
- Resolve target shooting conflicts with other uses
- Eliminate parallel and duplicate routes
- Reduce conflicts between motorized, mechanized, and non-motorized users
- Provide recreational opportunities that are compatible with the special resources
- Resolve the road maintenance issue with Fremont County
- Protect erosive soils

In January 1997, the Colorado State Office of the BLM approved the Standards for Public Land Health and amended all RMPs in the State. Standards describe the conditions needed to sustain public land health and apply to all uses of public lands.

Standard 1: Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes.

Standard 2: Riparian systems associated with both running and standing water function properly and have the ability to recover from major disturbance such as fire, severe grazing, or 100-year floods.

Standard 3: Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat's potential.

Standard 4: Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.

Standard 5: The water quality of all water bodies, including ground water where applicable, located on or influenced by BLM lands will achieve or exceed the Water Quality Standards established by the State of Colorado.

Because standards exist for each of these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in Chapter 3 of this document.

1.6 SCOPING, PUBLIC INVOLVEMENT AND ISSUES

1.5.1 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 allow public participation to identify issues, concerns, and potential impacts that require detailed analysis.

Persons/Public/Agencies Consulted: The BLM consulted with local trail groups as well as the grazing permittee who has a permit for the area. Trail groups discussed the desire to reduce the trail system's dependence on roads by providing connection trails, providing a variety of opportunities both in difficulty and distance and providing connections as close to town as possible. The grazing permittee requested that the trail system be designed to avoid, to the greatest extent possible, the area around the water tanks to reduce conflicts between recreation use and grazing.

A 30 day public scoping period was held from September 4, 2014 to October 4, 2014 to give the general public the opportunity to provide input on the proposed action. Notification of this scoping period was made through a press release that was published in both the Canon City Daily Record and the Colorado Springs Gazette. The project was also posted on the Royal Gorge Field Office NEPA website. Four formal comments were submitted during the scoping period. Three were in support of the project with two requesting that an additional trail be added to provide a beginner loop from the lower trailhead and another trail be added that provides a high degree of technical challenge. The proposed action was amended to include these. The fourth comment requested that the Cooper Mountain area stay as primitive as possible and that actions be taken that reduce the conflicts between grazing and recreation use. The proposed action incorporates design features to reduce this conflict. Changes to the Cooper Mountain Area were considered but not analyzed in detail.

Issues Identified: Internal and external scoping identified the following issues and concerns;

- Reduce conflicts with grazing use
- Protect fossil resources
- Protect sensitive plant species
- Protect erosive soils
- Manage recreation settings that continue to meet desired outcomes

CHAPTER 2 - PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

The purpose of this chapter is to provide information on the Proposed Action and Alternatives. Alternatives considered but not analyzed in detail are also discussed.

2.2 ALTERNATIVES ANALYZED IN DETAIL

2.2.1 Proposed Action

The BLM in cooperation with local groups and clubs propose to construct five new trails in the Oil Well Flats system in order to provide opportunities for a range of skill levels and a connection closer to Canon City. It is also proposed to extend one trail to avoid travel through the livestock watering area to separate grazing and recreation use. Total mileage added to the trail system would be approximately 5.75 miles. Each trail is broken out in detail below.

Trail 1 – Approximately 1 mile in length this trail would travel from the horse trailer parking area to trail # T5941B (Unconformity) providing a loop opportunity of moderate grade through fairly gentle terrain with a minimal rise in elevation. The trail management objective for this trail would be a beginner/intermediate trail to provide some challenge and obstacles without major climbs.

Trail 2 – At 0.5 miles in length this trail would parallel road #5941 allowing users to travel along a trail instead of the road to complete a loop increasing available ‘saddle time’ of the trail system. An intermediate/advanced trail with optional obstacles to add difficulty and adventure would be the primary management objectives. This trail would also locate users into treed areas avoiding meadows near the existing road where cattle tend to congregate.

Trail 3 – Starting at the mouth of Red Canyon off of County Road 9 (Shelf Road) this trail would climb approximately 2.5 miles and connect with trail #T5940B. This is the closest possible connection to Canon City on public land and is entirely south facing providing a long season of use. An easement through a corner of private land is required before this trail could be approved. This is intended to be an intermediate/advanced trail that, while two-way traffic is allowed, would be designed and built with downhill traffic in mind including incorporating alternate lines with ledges, drops, and long sections on bedrock. This trail would also require the construction of a small trailhead to provide parking. This would be coordinated with the county and details of the size and location would be determined at a later date. Additional NEPA may be required.

T5940G Extension – This trail would be extended by approximately .5 miles to cross road #5941 and connect to trail #T5941B and a parking area. This would reduce the distance of recreation travel on roads providing a longer trail experience and also reduce the amount of recreation travel through the livestock watering area.

Beginner Loop – This trail was added based on public comments received during the scoping period. This .5 mile addition would be designed with beginners in mind and connect between

Tectonic Shift Trail and Fracture, using part of Path of Least Resistance, creating two loop options of differing lengths from the upper trailhead.

Advanced Trail – This approximately .75 mile trail was added based on public comments received during the scoping period to provide a high degree of challenge that is not currently offered within the current trail system or proposed additions. This trail would provide opportunities for risk including challenging maneuvers and exposure. Rocks and boulders would be incorporated into the design to harden steeper sections and provide the desired level of challenge.

All trail construction would follow International Mountain Biking Association's (IMBA) trail guidelines and standards to provide a sustainable high quality trail recreation opportunity. These include but are not limited to:

1. A trail's grade should not exceed half the grade of the hillside or side slope where it is located unless located on a suitable surface (i.e. bedrock);
2. An average trail grade of 10 percent or less is most sustainable;
3. Maximum trail grade should not exceed 10-20 percent and should be based on considerations such as soil type, number and type of users, and annual rainfall;
4. Frequent grade reversals (such as rolling dips, drainage dips, etc.) should be used to promote drainage of water; and
5. Trail tread should be out sloped (5 percent recommended) to encourage water to sheet across and off the trail.

Trails would be approximately 2 feet wide and would be constructed using a combination of hand tools, chainsaws and small trail building equipment such as a trail dozer or micro-excavator. Any equipment used for construction would be washed prior to being brought onto site to minimize the spread of noxious weed species. Seeds used for restoration would be certified weed-free. The location of the trail would be located and designed to avoid highly erosive soils and sensitive plant species. If fossil resources are discovered during construction all construction activities would cease and BLM specialists would be brought in to advise and supervise. Construction of the trails could begin as early as winter 2014 and continue until completed pending funding and personnel.

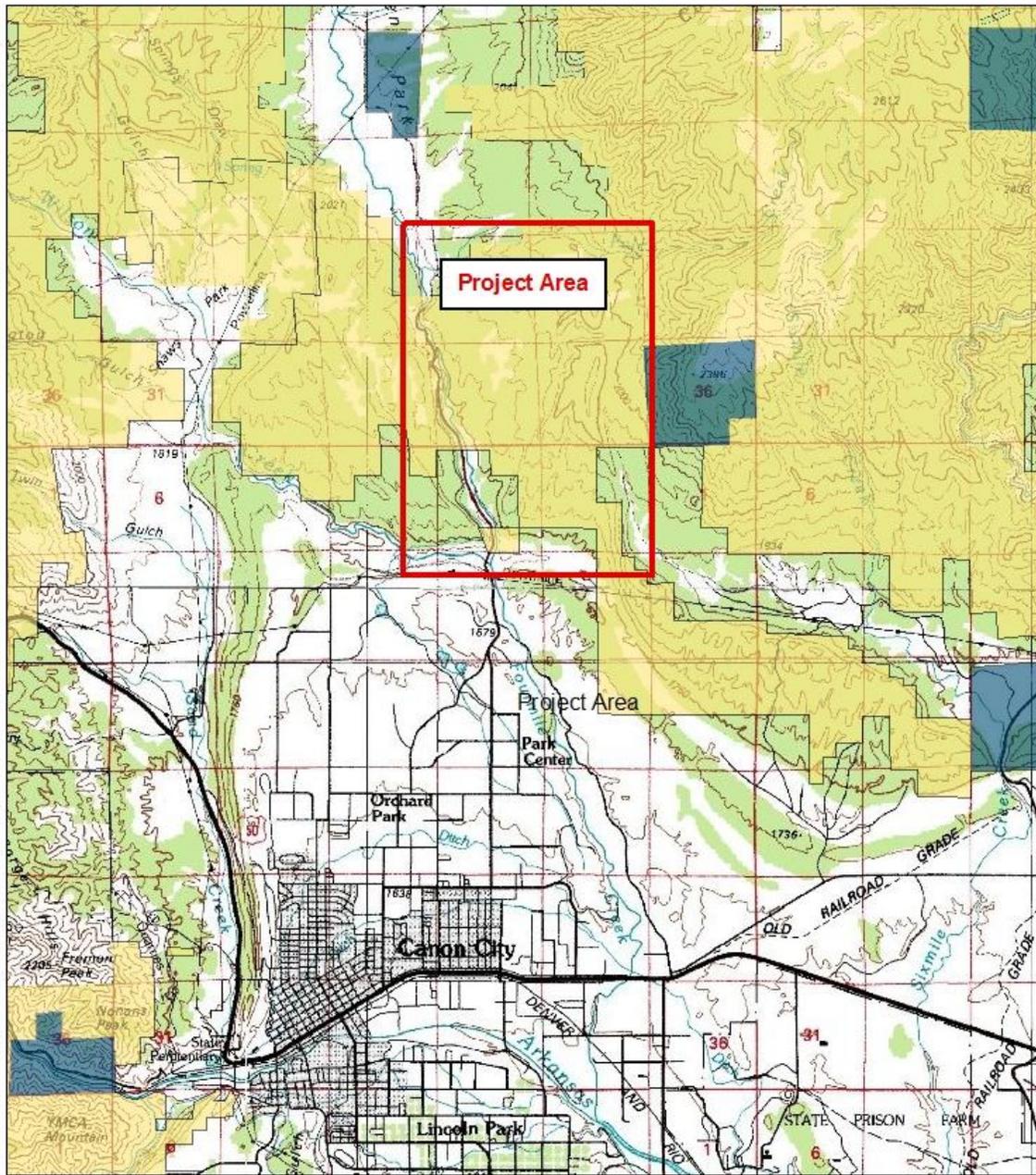
The trails will be monitored by a paleontologist, qualified to hold a Paleontological Resource Use Permit on a cyclic basis of every 5 years to minimize any impact to protected fossil resources. The purpose of monitoring would be to identify and remove any exposed fossil resources from the trail corridor to reduce the chances of fossil theft. A qualified paleontologist shall also be present during any trail construction or trail maintenance that would encounter bedrock.

Seasonal restriction that requires vegetation disturbance would be avoided from May 15 through July 15. This is the breeding and brood rearing season for most Colorado migratory birds. Any action that results in a measurable impact to a species' population will not be allowed.

Cutting and pruning of trees would not occur from April 1 to October 1 to minimize the spread of the pinyon ips beetle in the region.

If gasoline powered equipment is used for construction, an adequate spill kit and shovels would be onsite during project implementation.

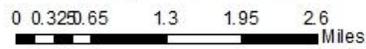
Annual coordination would occur between grazing and recreation staff to determine if additional actions are needed to reduce conflicts.



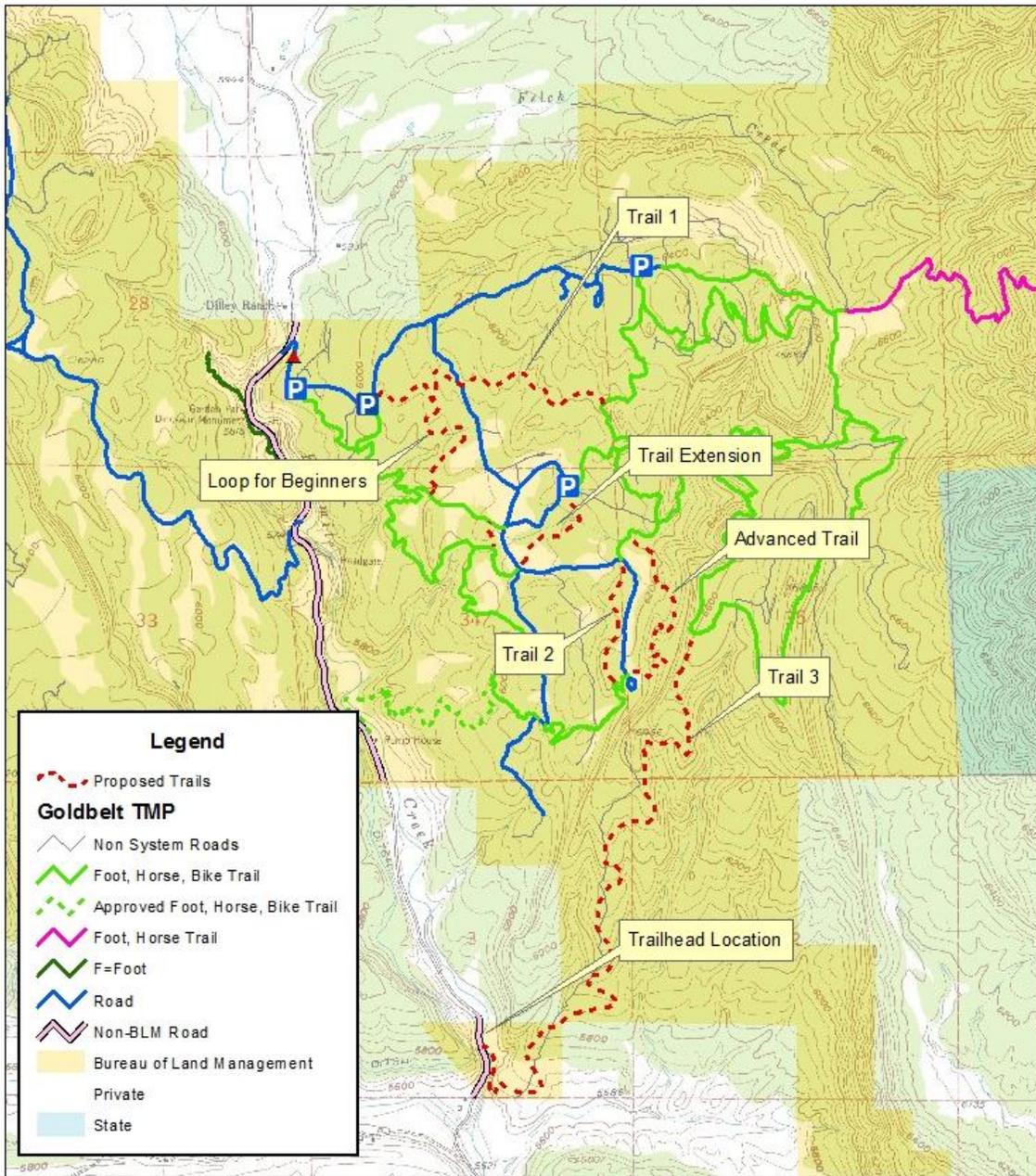
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T18S, R70W Section 3**



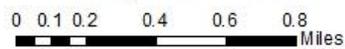
NOTE TO MAP USERS
No warrantee is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of the data layers shown on this map. The official land records of the data providers should be checked or current status on any specific tract of land.



Oil Well Flat; New Trail Construction

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6th PM, T17S, R70W Sections 27, 34, 35
T18S, R70W Section 3



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2.2.2 No Action Alternative

The No Alternative would be to not add any trails to the Oil Well Flats trail system.

2.3 ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

Changing the designation of the Cooper Mountain Trail to allow bicycles and modifying this trail to enhance the user experience was also considered. Preliminary scoping of this concept with the grazing permit holder and the Central Colorado Wilderness Coalition indicated that there is a strong desire to keep the area as primitive as possible and discussions with local trail groups did not identify this as a strong desire. Based on this scoping it was decided to not consider this alternative at this point in time.

CHAPTER 3 - AFFECTED ENVIRONMENT AND EFFECTS

3.1 INTRODUCTION

This section provides a description of the human and natural environmental resources that could be affected by the Proposed Action and presents comparative analyses of the direct, indirect and cumulative effects on the affected environment stemming from the implementation of the actions under the Proposed Action and other alternatives analyzed.

3.1.1 Interdisciplinary Team Review

The following table is provided as a mechanism for resource staff review, to identify those resource values with issues or potential impacts from the proposed action and/or alternatives. Those resources identified in the table as impacted or potentially impacted will be brought forward for analysis.

<u>Resource</u>	<u>Initial and date</u>	<u>Comment or Reason for Dismissal from Analysis</u>
<u>Air Quality</u> <i>Ty Webb, Chad Meister, Melissa Hovey</i>	TW, 3/19/2014	This project would have no negative effect on air quality within the area.
<u>Geology/Minerals</u> <i>Stephanie Carter, Melissa Smeins</i>	SSC, 5/27/14	This project would have no negative effect on geologic resources within the area. The federal minerals in the proposed project area are open to mineral location, therefore requiring coordination between surface uses as applicable. However, as of May 2014 there are no active claims in this area.
<u>Soils</u> <i>John Smeins</i>	JS, 4/29/2014	See Soils Section 3.2.3
<u>Water Quality Surface and Ground</u> <i>John Smeins</i>	JS, 4/29/2014	See Water Quality Section 3.2.4

<u>Resource</u>	<u>Initial and date</u>	<u>Comment or Reason for Dismissal from Analysis</u>
<u>Invasive Plants</u> <i>John Lamman</i>	JL, 4/29/2014	See affected environment.
<u>T&E and Sensitive Species</u> <i>Matt Rustand</i>	MR, 4/22/2014	See affected environment.
<u>Vegetation</u> <i>Jeff Williams, Chris Cloninger, John Lamman</i>	CC, 4/8/2014	See section 3.3.3 below
<u>Wetlands and Riparian</u> <i>Dave Gilbert</i>	DG, 4/22/2014	See affected environment.
<u>Wildlife Aquatic</u> <i>Dave Gilbert</i>	DG, 4/22/2014	See affected environment.
<u>Wildlife Terrestrial</u> <i>Matt Rustand</i>	MR, 4/22/2014	See affected environment.
<u>Migratory Birds</u> <i>Matt Rustand</i>	MR, 4/22/2014	See affected environment.
<u>Cultural Resources</u> <i>Monica Weimer, Michael Troyer</i>	MDT, 12/2/2014	Affected Environment: Prehistoric and historic sites are present in the vicinity of the area of potential effect [see Reports CR-RG-15-089 N]. However, no cultural resources were recorded during the field inventory. Therefore, no historic properties will be affected by the proposed undertaking.
<u>Native American Religious Concerns</u> <i>Monica Weimer, Michael Troyer</i>	MDT, 2/2/2014	Although aboriginal sites are present in the vicinity of the area of potential effect, no possible traditional cultural properties were located during the cultural resources inventory (see Cultural Resources section, above). There is no other known evidence that suggests the project area holds special significance for Native Americans.
<u>Economics</u> <i>Dave Epstein, Martin Weimer</i>	mw, 4/17/14	This action will not result in significant impacts to the socio economics of the region or individuals.
<u>Paleontology</u> <i>Melissa Smeins, Stephanie Carter</i>	Mjs, 9/15/2014	See section 3.4.3 below
<u>Visual Resources</u> <i>Kalem Lenard</i>	KL, 2/5/2014	The proposed action would introduce minor modifications to the environment. These modifications would not impact visual resources.
<u>Environmental Justice</u> <i>Martin Weimer</i>	mw, 4/17/14	The proposed action affects areas that are rural in nature. The land adjacent to these parcels is open rangeland used for grazing and recreational purposes, as a result, there are no minority or low-income populations in or near the project area. As such, the proposal will not have a disproportionately high or adverse environmental effect on minority or low-income populations.
<u>Wastes Hazardous or Solid</u> <i>Stephanie Carter</i>	SSC, 5/27/14	The proposed action should not have negative impacts involving wastes.

<u>Resource</u>	<u>Initial and date</u>	<u>Comment or Reason for Dismissal from Analysis</u>
<u>Recreation</u> <i>Kalem Lenard</i>	KL, 2/5/2014	The project would not alter the physical, social, or operational settings for the area. The actions proposed would help better achieve the desired outcomes; specifically personal development and growth and greater community support for close in fitness related outdoor recreation. In all there would be positive changes to recreation resources in the area.
<u>Farmlands Prime and Unique</u> <i>Jeff Williams, Chris Cloninger, John Lamman</i>	CC, 4/8/2014	No prime or unique Farmlands.
<u>Lands and Realty</u> <i>Rich Rotte</i>	RR, 11/10/ 14	Notice was provided to three adjacent right of way holders, Park Center Water DO, Fremont County, and QWEST Corp. No comments were received.
<u>Wilderness, WSAs, ACECs, Wild & Scenic Rivers</u> <i>Kalem Lenard</i>	KL, 2/5/2014	Not Present.
<u>Wilderness Characteristics</u> <i>Kalem Lenard</i>	KL, 2/5/2014	Not Present.
<u>Range Management</u> <i>Jeff Williams, Chris Cloninger, John Lamman</i>	CC, 4/8/2014	See section 3.5.5 below
<u>Forest Management</u> <i>Ken Reed</i>	KR, 4/3/14	See section 3.5.8 below
<u>Cadastral Survey</u> <i>Jeff Covington</i>	JC, 11/4/2014	This action will not result in any significant impacts.
<u>Noise</u> <i>Martin Weimer</i>	mw, 4/17/14	This action will not result in any significant impacts due to noise or result in any increased noise levels.
<u>Fire</u> <i>Ty Webb</i>	TW, 4/17/2014	There are no fire related issues associated with this action.
<u>Law Enforcement</u> <i>Steve Cunningham</i>	mw for SC, 4/17/14	There are no law enforcement issues associated with this action.

The affected resources brought forward for detailed analysis include:

- Soils
- Water Quality
- Invasive Plants
- T&E and Sensitive Species
- Vegetation
- Wetlands and Riparian
- Wildlife Aquatic
- Wildlife Terrestrial
- Migratory Birds
- Paleontology

- Range Management

- Forest Management

3.2 PHYSICAL RESOURCES

3.2.1 SOILS (includes a finding on standard 1)

Affected Environment:

The proposed trails would cover approximately 1.4 acres of land surface depending on final layout, and is located on several different soil types. Trails 1, 2 and the trail extension are located on the Ustic Torriorthents-Sedillo complex, 15 to 40 percent slopes. The southern, grassland stretch of the trail extension (0.1 mi.) is the Fort Collins loam, cool, 2 to 5 percent slopes. Trail 3 is primarily on the Travessilla-Rock outcrop complex, 5 to 50 percent slopes, with the southernmost 0.3 miles on Kim loam, 3 to 8 percent slopes. The trail erosion hazard for the Fort Collins and Kim soils soil are rated as 'slight', and the Travesilla-Rock outcrop complex and Ustic Torriorthent-Sedillo complex are rated as 'moderate' for slope erodibility. The majority of the disturbance created by the trails would be in areas of moderate erodibility.

Environmental Effects

Proposed Action

Direct and Indirect Impacts:

The construction of these trails would permanently alter these soils and the removal of vegetation on them could lead to accelerated erosion. However, the proposed building guidelines put forth by the IMBA would effectively limit the water collection and route runoff quickly from the trail tread resulting in limited erosion. Overall, even with the soils being classified as moderate for trail development, the impacts to soils and subsequent long term erosion is anticipated to be minimal. In addition, rerouting or closure of unneeded trails would allow reclamation on previously disturbed lands.

Protective/Mitigation Measures:

Use of slash scattering and native seed mixes on exposed, non-trail disturbed areas would reduce erosion and offsite sedimentation risks. Also use of native materials (rocks, logs, etc.) to close rerouted/unneeded trails would promote reclamation, and in essence, trade some of the new proposed disturbance for reclaimed lands.

Cumulative Impacts: At the 6th level watershed scale, there is a relatively large amount of activities effecting soils. These include subdivisions, mining, grazing, and recreation. The further development of the trail system at Oil well Flats is not anticipated to negatively add to the overall soil function at this scale.

No Action Alternative

Direct and Indirect Impacts:

If no action is taken, no managed impacts would occur. However, the continued use and development of social trails may continue.

Protective/Mitigation Measures:

None

Finding on the Public Land Health Standard for Upland Soils: The soils in the area are currently meeting land health standards. The proposed action would alter the soils where the trails are physically located; however, the soils in the area as a whole would still meet standards if the Proposed Action is implemented.

3.2.2 WATER (SURFACE AND GROUNDWATER, FLOODPLAINS) (includes a finding on standard 5)

Affected Environment:

The Proposed Action would take place in the upland areas of the Outlet Fourmile Creek watershed (110200020208). Mean annual precipitation is 13 – 15 inches, mostly falling in July and August. The mainstem of the watershed – Fourmile Creek – is not listed as impaired by the BLM or the state of Colorado. Trail 1 and the proposed trail extension will both cross the upper sections of small ephemeral drainages that have small drainage areas.

Environmental Effects

Proposed Action

Direct and Indirect Impacts:

The main anticipated water quality and hydrology impacts from the Proposed Action stems from the removal of vegetation resulting in increased runoff and subsequent sedimentation. The total proposal would add approximately 1.4 acres of trail, depending on the final layout and design. Construction would be carried out over several years as funding and labor are available allowing recovery between construction phases. As each trail is finalized, subsequent site specific NEPA documentation would be conducted. The Proposed Action would also rehabilitate other unneeded trails within the area as the trail system is formalized. Due to the size and circumstances (Trail 3 would mainly be located on bedrock), a Stormwater Protection Plan (SWPP) is not anticipated to be necessary; however, the mitigation being proposed would be similar to what would be required under a SWPP.

The crossing at trail 1 drains a very small area (0.07 square miles) and likely only flows immediately after large rainfall events. The crossing at the trail extension drains 0.97 square miles and has the possibility of larger flows than Trail 1. However, with adequate mitigation procedures outlined by the IMBA, damage to channel geometry is not expected to occur, and sedimentation is not expected to impact Fourmile Creek.

Protective/Mitigation Measures:

Depending on site specific conditions, the following mitigation measures may be applied:

- Existing vegetation would be preserved where possible to limit exposed soil.
- Slash piles and native seed mixes may be used to cover and strengthen freshly exposed soil surfaces.
- Trail treadways would be constructed and shaped to shed water to provide sheet flow to vegetated areas for filtration and infiltration.

- Stabilization of exposed soil on backslopes and/or downslope spoils will include seed, mulch, or blankets, or similar measures.
- Rock hardening in concentrated flow areas.

Cumulative Impacts:

At the 6th level watershed scale, there is a relatively large amount of activities effecting water quality. These include subdivisions, mining, grazing, and recreation. The further development of the trail system at Oil well Flats is not anticipated to contribute negatively to overall water quality at this scale.

No Action Alternative

Direct and Indirect Impacts:

If no action is taken, conditions on site would remain as they currently are.

Protective/Mitigation Measures:

None

Finding on the Public Land Health Standard for Water Quality:

Currently, Fourmile Creek is meeting land health standards and is expected to continue meeting if the Proposed Action is implemented.

3.3 BIOLOGICAL RESOURCES

3.3.1 INVASIVE PLANTS¹

Affected Environment: Invasive plants are common in the area due to historical agricultural practices. The native plant community has been altered due to the historical practices in the area. The ecological sites that make up the project site are prone to a variety of weed infestations if soil surface disturbance occurs. Invasive plants within 7 miles of the project area include but are not limited to: dalmation toadflax, Russian knapweed, perennial peperweed, salt cedar, white top, Russian olive, and thistle,

Environmental Effects

Proposed Action

Direct and Indirect Impacts:

Due to the long-term exposure of the project area to historical practices, expected impacts are thought to be minor.

¹Invasive plants are plants that are not part of (if exotic), or are a minor component of (if native), the original plant community or communities that have the potential to become a dominant or co-dominant species on the site if their future establishment and growth are not actively controlled by management interventions, or are classified as exotic or noxious plants under state or federal law. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants.

Protective/Mitigation Measures: None

Equipment used to implement the proposed action should be washed prior to entering the project area to remove any plant materials, soil, or grease. Areas disturbed by project implementation will be monitored for the presence of weeds on the Colorado State Noxious Weed list. Monitoring is required for the life of the project and for three years following project completion. Identified noxious weeds in disturbed areas will be treated.

Cumulative Impacts:

None.

No Action Alternative

Direct and Indirect Impacts:

None.

Protective/Mitigation Measures:

None.

3.3.2 THREATENED, ENDANGERED AND SENSITIVE SPECIES

Affected Environment: This assessment area is occupied by a habitat type that consists primarily of piñon pine and juniper. Open areas of mountain grassland are interspersed throughout the area and mountain shrubs such as currant and mountain mahogany are abundant, especially on south slopes. Foothills riparian forests are found along Fourmile Creek and provide a habitat type that is less common in this area. The riparian forest is dominated by a deciduous component, especially narrowleaf cottonwood and willow. The understory of these systems is typically rich, with a wide variety of shrubs and herbaceous plants.

One bald eagle nest is known to occur within the Fourmile Creek watershed. The nest has been inactive for a number of years and is located more than two miles from the planning area on private land. Colorado populations of bald eagles typically nest in large cottonwood trees along rivers and reservoirs. Eagle densities reach their peak during the winter months when migrants arrive from the north. The bald eagle is a common winter (December through February) visitor to the Arkansas River valley. Typically, up to five birds can be found from Leadville to Cañon City, and up to five birds can be found from Cañon City to Pueblo Reservoir. These birds could be expected to forage on public lands. However, use by eagles is so incidental that preferred or critical areas such as roosting or feeding sites have not been identified. Bald eagles could be expected to hunt on the Shaw Park parcel and less so on the Garden Park parcel.

There are three BLM sensitive plant species that may be affected by this project. The Brandegees wild buckwheat (*Eriogonum brandegei*) is listed as a BLM sensitive species. It is found in the valley of the upper Arkansas River in Chaffee and Fremont Counties, Colorado. Several thousand individual plants are found in several sites along Fourmile Creek. Much of the area has been disturbed by past mining and increases in off-road vehicle use in recent years. The area that is known to contain the Buckwheat plant is designated as the Garden Park Research Natural Area by the state of Colorado and as a BLM Area of Critical Environmental Concern (ACEC). However, it is reasonable to believe the species occurs in the Oil Well Flats area as well due to

the close proximity and similarity of habitat.

Dwarf milkweed (*Asclepias uncialus*) habitat consists of shortgrass prairie, often on sandstone-derived soils and gravelly or rocky slopes at an elevation of 4000-6500 ft. It occurs north of Cañon City in the Oil Well Flats and Dinosaur areas growing on the lower side slopes of canyon walls. Other associated species include juniper, mountain mahogany, blue grama, yucca and prickly pear cactus. Dwarf milkweed is very rare with small population sizes and is only known from isolated occurrences in Colorado, New Mexico, Wyoming and Arizona. Surveys by the Colorado Natural Heritage Program in 1996 documented one population of this species with 24 individual plants in Oil Well Flats. Previous surveys documented a small population in the Dinosaur area.

Golden blazing star (*Menzelia chrysantha*) is a tall plant with yellow flowers. The habitat consists of barren slopes of limestone, shale or clay at elevations of 5120 -5700 ft. This species is known from less than 20 locations in the Arkansas Valley from Pueblo Reservoir to Cañon City and is not found anywhere else in the world. BLM lands support an excellent population of blazing star within the Garden Park area and this species is likely to occur within the Oil Well Flats area as well.

Environmental Effects

Proposed Action

Direct and Indirect Impacts:

If the current bald eagle nest were to become active, the distance between the nest and the proposed action will cause a no effect to the success of the nest. It is possible that a bald eagle could construct a nest in existing cottonwood trees nearer to the proposed action, but the topography and proximity to an existing paved county road would render a nest site that would more likely be affected by traffic, both bicycle and vehicular, along the roadway than a single track trail.

The proposed trails are not currently flagged on the ground; therefore, specific impacts to sensitive plant species are unknown. However, the construction of trails will create permanent surface disturbance and it is possible these trails could destroy BLM sensitive plants and or their habitat.

Protective/Mitigation Measures:

Prior to trail construction, a survey for sensitive plants will take place to protect existing populations. If a trail is designed to be constructed through an existing population of sensitive plants, the trail will be re-routed to avoid the individuals.

Cumulative Impacts:

The existing trail network and the addition of the proposed trails create a dense system of trails in the Oil Well Flats area. While direct impacts could occur, flora, unlike fauna, is not negatively impacted by the simple presence of people. Creating a denser trail network will have no impact on sensitive plant species as long as existing populations area avoided.

No Action Alternative

Direct and Indirect Impacts:

None.

Protective/Mitigation Measures:

None.

Finding on the Public Land Health Standard for Threatened & Endangered species: The project will not result in impacts or changes to public land health standards for Threatened & Endangered species.

3.3.3 VEGETATION (includes a finding on standard 3)

Affected Environment: Elevation in the project area varies from approximately 5,800 ft. to 6,600 ft. Significant plant growth usually begins to occur in mid – late May. Generally, the night-time temperatures in mid-September begin to fall low enough to significantly reduce and eventually halt plant growth. July and August are usually the wettest months of the year as well and the warmest. The combination of available moisture and warm temperatures tend to provide July and August with the most favorable conditions for plant growth during the year.

Vegetation is primarily comprised of pinyon/juniper woodlands interspersed with small meadows or large parks of open grasslands. The areas dominated pinyon/juniper woodlands generally are characterized by shallow soils and substantially less herbaceous ground cover than the parks or grasslands. Erosion potentials for these vegetation communities tend to be somewhat higher due to these two influences. These communities also often occupy the steeper, rockier terrain on the parcels. Areas with steeper slopes have even higher erosion potentials. Also, due to the reduced amount of herbaceous vegetation and shallow soils, natural re-vegetation of disturbed areas, such as roads or trails, is much slower in areas dominated by piñon/juniper vegetation than in other plant communities.

The portions of the planning area occupied by small meadows or larger, open parks tend to have much deeper soils with a greater water-holding capacity than the pinyon/juniper woodlands. The parks are dominated by blue gramma and sand dropseed. Other grass species such as western wheatgrass, three-awn, sideoats gramma, bottlebrush squirreltail, needle-and-thread grass and Indian ricegrass are also present. Shrubs and half-shrubs such as cholla, soapweed, snakeweed, rabbitbrush, currant, Gamble oak, fringed sage and mountain mahogany also exist in the area on both sites. In the parks and meadows, the deep soils and relatively shallow root systems of grass and forb species tend to make these sites somewhat more susceptible to damage from vehicle use than other sites within the planning area. When soils are wet, these areas are highly susceptible to rutting from vehicle tires. Furthermore, under wet conditions, vehicle operators often tend to drive to the sides of existing ruts causing additional damage and “braiding” of trails that result in further loss of vegetation. Grassland communities, however, also tend to re-vegetate more rapidly when undisturbed than the pinyon/juniper sites.

Environmental Effects

Proposed Action

Direct and Indirect Impacts:

The planning area is comprised of pinyon/juniper woodlands, pinyon/juniper sites tend to have high erosion potentials. However, existing travel routes through these woodlands often tend to be somewhat confined by topography or by the presence of woodland vegetation. This frequently offsets the potential for additional damage to vegetative resources in these areas.

The action creates sustainable trails that will meet upland vegetation health standards in the long term. Closing and reclaiming the user created trails will also help meet vegetation health standards. Vegetation will naturally re-inhabit the user created trails once use ceases and surface erosion is stabilized.

Protective/Mitigation Measures:

Seeds used for restoration would be certified weed-free. The location of the trails would be located and designed to avoid highly erosive soils and sensitive plant species.

Cumulative Impacts:

The area has been influenced by historic mining and grazing, over the past years. Currently, development of the surrounding private land and recreation of the public land is increasing exponentially. Cumulative impacts will be minimal if new non-motorized trails are restricted and managed to prevent new damage to vegetation and allow recovery.

No Action Alternative

Direct and Indirect Impacts:

Under this alternative any existing, unstable user-created trails will continue to erode and soil loss will occur. Although vegetation health standards would still be met there would be a greater impact to soil loss and thus the ability for vegetation to reestablish in the corridor of the user created trails.

Protective/Mitigation Measures:

None required.

Finding on the Public Land Health Standard for Plant and Animal Communities:

The land health evaluations indicate much of the area is currently meeting applicable standards for public land health. However, the ID team also identified certain land health concerns regarding the amount and density of pinyon/juniper vegetation in the area. Pinyon and juniper canopies have steadily grown increasingly dense and pinyon/juniper woodlands have begun to encroach into many of the open parks and meadows. As this continues over time, many areas are characterized by decreasing amounts of herbaceous plant cover and higher amounts of bare ground. Productivity, vigor and diversity of the site decreases. These areas begin to retain less moisture during precipitation events and allow higher levels of surface runoff and soil

movement. The proposed action or Alternative to not construct the trails does not affect the Public Land Health Standard for Plant and Animal Communities.

3.3.4 WETLANDS & RIPARIAN ZONES (includes a finding on standard 2)

Affected Environment: All trails discussed are in upland settings just east of Fourmile Creek. Fourmile Creek drains a portion of the south slopes of Pikes Peak and a large area west of Cripple Creek. The watershed above the trail system is subject to large and infrequent heavy rainfall which sets some of the character of the stream. Typical Colorado snow-melt high runoff for this watershed is less frequent because the watershed has a lower average elevation than common headwater streams of Colorado. There is a functioning riparian area adjacent to the stream. The stream is subject to much unnatural flow modification, but given that, the riparian habitat is considered functional on public land. The plant community has exotic vegetation in both the canopy and understory, but is primarily a cottonwood-willow riparian area. The trails do not intersect Fourmile Creek except at the proposed trailhead location where a parking area would also need to be developed.

Environmental Effects

Proposed Action

Direct and Indirect Impacts:

The Trailhead Location of Trail #3 would bisect riparian habitat along Fourmile Creek. Most of Fourmile Creek is in private ownership, so there is high public use demand to be near public waterways. The trail however brings the following impacts: Trail enthusiasts will disturb wildlife using the riparian habitat at a frequency commensurate with the amount of use the trail gets, and since it is so close to town, it may be the most used location; trail- and parking area-generated soil erosion would deposit into riparian habitat so construction BMP's become paramount here because buffering is limited by proximity; and, on hot days, a parking area along the creek would present an opportunity for people to cool off in the creek, disturbing the habitat and anglers. However, as stated, a further NEPA may be needed once coordination with the county and details of the size and location of the parking area are determined at a later date. The rest of the proposed trails do not impact any wetland or riparian zones.

Protective/Mitigation Measures: Trail grade and the sloping of trail tread should keep most runoff in the uplands and not create erosion into the creek.

Cumulative Impacts:

Creating a trailhead location adds to recent disturbances at Park Center Well, hydrologic modification, exotic vegetation encroachment, private land disturbances and development and existing infrastructure such as the county road, pipelines and power-lines. However, the rest of the trails do not impact this system.

No Action Alternative

Direct and Indirect Impacts:

No new impacts.

Protective/Mitigation Measures:

None.

Finding on the Public Land Health Standard for Riparian Systems: The riparian area adjacent to the proposed trailhead is presently functional with respect to its condition assessment rating and is meeting the BLM land health standard for riparian. The trailhead will not impact the riparian area to the extent that the condition changes.

3.3.5 WILDLIFE AQUATIC (includes a finding on standard 3)

Affected Environment: See riparian section above. Aquatic habitat is only affected at stream crossings, and if trail erosion and/or people enter the stream.

Environmental Effects

Proposed Action

Direct and Indirect Impacts:

Similar to that described in the riparian section. In addition, crossing would have a slight effect of silting the water when crossing the stream, or having temporarily construction impacts if a bridge is installed. Both impacts would be minor after initial construction which would only yield short term impacts.

Protective/Mitigation Measures:

At trailhead crossing, it is critical that the approach be designed to not divert water in high flows, or lead sediments to the water in precipitation events. Trail #3 needs to lead up to a crossing at an appropriate slope.

Cumulative Impacts:

Similar to discussed riparian impacts.

No Action Alternative

Direct and Indirect Impacts:

No new impacts.

Protective/Mitigation Measures:

None required.

Finding on the Public Land Health Standard for Plant and Animal Communities: The aquatic wildlife community from Park Center Well along Fourmile Creek was robust prior to the 2012-2013 drought. Aquatic wildlife will re-colonize from refuge habitat through time and will be independent of the Trail #3 interaction, and more dependent upon water rights flow management. If flow stabilizes, aquatic wildlife should sustain with or without a trail crossing.

3.3.6 WILDLIFE TERRESTRIAL (includes a finding on standard 3)

Affected Environment: This project area is occupied by a habitat type that consists primarily of pinyon pine and juniper. Open areas of mountain grassland are interspersed throughout the area

and mountain shrubs such as currant and mountain mahogany are abundant, especially on south slopes. Foothills riparian vegetation is found only in a few isolated pockets. In this area the riparian vegetation is dominated by narrowleaf cottonwood. The understory of these systems is typically rich, with a wide variety of shrubs and herbaceous plants.

Wildlife species occupying the area are typical of the pinyon-juniper forest and include mule deer, elk, black bear, mountain lion, coyote, badger, cottontail rabbit, and rock squirrel. Common bird species are listed in the Migratory Bird section of this EA. Habitat in the area could also support a small number of raptors because suitable habitat exists in the rocky cliffs that are found in nearby drainages. Raptors that would be common include red-tailed hawk, kestrel, and golden eagle.

Environmental Effects

Proposed Action

Direct and Indirect Impacts:

The discussion presented in the migratory bird section applies. To summarize, the proposed action would create a managed trail system, minimizing the creation and use of trespass routes. However, a managed trail system will likely increase the human activity, reducing the quality of wildlife habitat.

Protective/Mitigation Measures:

None.

Cumulative Impacts:

This project would result in a long-term, moderate intensity disturbance in a small area. The proposed trail construction is in addition to current existing trails and is introducing a new human presence to the project area. Because the project area currently contains a developed trail system, the proposed action is not anticipated to result in an additive negative cumulative impact to wildlife.

No Action Alternative

Direct and Indirect Impacts:

This is the preferred alternative to ensure the protection of habitat for wildlife. However, the project area has been identified as a preferred recreation site within the Goldbelt Travel Management Plan. As a result, wildlife habitat is being protected within other areas of the cited plan by consolidating high density visitor use to this area.

Protective/Mitigation Measures:

None.

Finding on the Public Land Health Standard for Plant and Animal Communities: Authorizing this project will not affect the health standard for plant and animal communities.

3.3.7 MIGRATORY BIRDS

Affected Environment: The elevation of the proposed trail system area is about 5,800 to 6,200 feet with an annual precipitation of 14 to 16 inches. Pinyon-juniper is the dominant vegetation with smaller amounts of mountain shrub and grassland.

The Colorado Bird Conservation Plan identifies 13 vegetation habitat types important to birds in Colorado. The habitat classifications and assignment of bird species to the habitats were developed by Colorado Bird Observatory (CBO) staff along with individuals who contributed to early development of the conservation prioritization scheme. Bird species were assigned to specific habitats based on their restriction to, or strong representation within, that habitat type. Of these 13 habitat categories, 3 (grassland, mountain shrubland and pinyon-juniper) are found within the proposed project area. Bird species typically found in these habitats are described for each habitat type.

Grasslands provide habitat for many species. The severity of the semi-arid climate produces contrasts in vegetation. Grassland birds thus evolved in a shifting landscape mosaic, with access to patches of vegetation in a variety of successional stages and conditions. Species that are typically found in the grassland habitat in the planning area are Cassin's sparrow, lark bunting, grasshopper sparrow, McCown's longspur, western meadowlark, great-horned owl, golden eagle, common raven, mourning dove and American kestrel.

Mountain shrubland habitat provides valuable food and cover for many wildlife species. Many shrub species produce edible fruits, and they provide a large selection of forage types. Often the soil moisture is enough for shrubs to grow densely. Gambel oak acorns are an important mast crop in many areas. Birds such as band-tailed pigeon, wild turkey, Lewis's woodpecker, Steller's jay, western scrub-jay, and green-tailed towhee feed on the acorns. Other birds such as the Virginia's warbler utilize mountain shrub habitat for resting, feeding, and nesting. Dusky flycatcher, Virginia's warbler, and green-tailed towhee are associated with Gambel oak and other shrub habitat.

Pinyon-juniper habitat supports the largest nesting bird species list of any upland vegetation type in the West. Lowland riparian habitats will, across an entire year, harbor more species of birds due to their importance to migrants. A single ponderosa pine stand typically supports more species than a single pinyon-juniper stand. Aspen stands may hold a higher density of birds. However, the richness of the pinyon-juniper vegetation type is important due to its middle elevation. Survey tallies in pinyon-juniper are similar in species diversity to the best riparian. Several species are found in the pinyon-juniper habitat and include: black-chinned hummingbird, gray flycatcher, Cassin's kingbird, gray vireo, pinyon jay, juniper titmouse, black-throated gray warbler, Scott's oriole, ash-throated flycatcher, Bewick's wren, mountain chickadee, white-breasted nuthatch, and chipping sparrow.

The following birds are listed on the U.S. Fish and Wildlife Service Birds of Conservation Concern (BCC) – 2002 List for BCR 16-Southern Rockies/Colorado Plateau. These species have been identified as species that may be found in the project area, have declining populations and should be protected from habitat alterations.

The golden eagle is a bird of grasslands, shrublands, piñon-juniper woodlands, and ponderosa pine forests, but may occur in most other habitats occasionally, especially in winter. Nests are placed on cliffs and sometimes in trees in rugged areas, and breeding birds range widely over surrounding habitats. There is a historically known golden eagle nest located near the terminus of trail 3, however, the nest has not been active for several years and topography restricts the line of sight from any proposed trail.

Peregrine falcons in Colorado breed on cliffs and rock outcrops from 4,500-9000 ft in elevation. They most commonly choose cliffs located within piñon-juniper and ponderosa pine zones. These falcons feed on smaller birds almost exclusively, with White-throated swifts and rock doves being among their favored prey.

Prairie falcons nest in scattered locations throughout the state where they inhabit the grassland and cliff/rock habitat types. These falcons breed on cliffs and rock outcrops, and their diet during the breeding season is a mix of passerines and small mammals.

Gray Vireos are piñon-juniper woodland obligates. Gray Vireos usually inhabit stands dominated by juniper or thin stands of pure juniper. They construct nests of dry grasses, plant fibers, stems, and hair, often camouflaging them with sagebrush leaves.

Piñon jays range the semiarid lands of the West. The Colorado Breeding Bird Atlas map shows them south of a diagonal line drawn from the northwest corner to the southeast corner of the state. Piñon jays are piñon and juniper obligates in Colorado and nest commonly at the lower elevations of piñon-juniper woodlands, often where junipers dominate. A few nest in ponderosa pine. They prefer extensive stands far from high human activity.

Black-throated gray warblers are fairly common summer residents in piñon-juniper woodlands across the southwestern half of Colorado. Some surveys show these warblers to be the most frequently encountered birds in the piñon-juniper woodland. Black-throated gray warblers, in Colorado, are piñon-juniper obligates, preferring tall, dense piñon-juniper woodlands.

Virginia's warblers in Colorado nest between 5,000-9,000 feet in elevation. They breed most abundantly in the western quarter of the state, along the eastern slope foothills, and in the upper Arkansas River drainage. Virginia's warblers nest in dense shrublands and on scrub-adorned slopes of mesas, foothills, open ravines, and mountain valleys in semiarid country. They use scrubby brush, piñon-juniper woodland with a well-developed shrubby understory, ravines covered with scrub oak and dense shrublands--especially gambel oak. They also breed in open ponderosa pine savannahs that have a dense understory of tall shrubs.

Environmental Effects

Proposed Action

Direct and Indirect Impacts:

The following discussion also applies to the Terrestrial Wildlife section. Impacts to migratory birds from trails are variable depending on a number of factors. Typically,

impacts to birds from trails are not as great as those from intensive development where large areas of habitat are altered. However, impacts do occur and even passive recreation such as hiking, horseback riding, running, jogging and biking can affect birds and bird habitat in a variety of ways, both short and long term.

Impacts can be defined as direct and indirect. Direct impacts are those that result from close encounters with birds and cause a flight reaction. The reaction is a function of the species, closeness, type and intensity of the encounter, time of day, time of year, type of habitat, vegetation screening, trail location, surrounding land use, and many other variables. Bird characteristics, including species, group size, age and sex, also determine the response to a disturbance. Disturbance by humans can cause nest abandonment, decline in parental care, increased stress, shortened feeding times, and potentially lower reproductive success.

Indirect impacts are defined as impacts to habitat that do not directly impact the bird itself. The construction of a trail results in a loss of habitat. Vegetation removed in the process of building a trail is no longer available for use by birds. Indirect impacts also occur as birds avoid habitat along trails to reduce their exposure to negative stimulus associated with human uses. While the habitat may provide for the needs of the species, it may not be utilized because of its proximity to a trail.

Another form of indirect impact is the fragmentation of habitat that occurs with increasing trails. Wildlife species prefer larger blocks of undisturbed habitat rather than smaller fragmented pieces. Habitat fragmentation is considered to be the greatest threat to biological diversity. Determining when a trail causes habitat fragmentation and how it contributes to a reduction in biological diversity is extremely difficult.

Preventing fragmentation of habitats also contributes to the maintenance of wildlife movement corridors. Wildlife movement corridors are defined as linear habitat whose primary function is to connect two or more significant habitat areas. Corridor use is influenced by topography, vegetation, and species of interest and nearby human activities. A wildlife corridor should serve to provide for several functions such as providing wide-ranging animals an opportunity to travel, migrate and locate mates, allow plants to propagate, provide for genetic interchange, allow for populations to move in response to environmental changes, and to allow for individuals to re-colonize suitable habitats. Corridors are needed to maintain connectivity among formally contiguous habitats.

Public lands are an increasingly important source of land for providing the connectivity of habitats that is important to many wildlife species. In addition, they provide some of the only remaining large blocks of contiguous wildlands (core habitat) in many areas. In recent years private lands are being sold to developers and becoming subdivisions that include roads, home sites and other support facilities. As homes are built and people move into the wildlands, wildlife species are being displaced and forced to move from traditional ranges. The only large habitat areas left are those that occur on public lands.

The proposed action would create a managed trail system, minimizing the creation and use of trespass routes. However, a managed trail system will likely increase the human activity, reducing the quality of wildlife habitat. The Proposed Action would result in a higher density of routes and will likely increase impacts to migratory bird species from increased disturbance and habitat fragmentation.

Protective/Mitigation Measures:

In order to be in compliance with the Migratory Bird Treaty Act, BLM must avoid actions that result in a “take” of migratory birds. Generally, this requires a seasonal restriction that requires that all vegetation disturbances be avoided from May 15 through July 15. This is the breeding and brood rearing season for most Colorado migratory birds.

Cumulative Impacts:

This project would result in a long-term, moderate intensity disturbance in a small area. The proposed trail construction is not anticipated to result in negative cumulative impacts to wildlife species when viewed in conjunction with those activities currently occurring and reasonably certain to occur on adjacent State and private lands.

No Action Alternative

Direct and Indirect Impacts:

This is the preferred alternative to ensure the protection of habitat for migratory birds. However, the project area has been identified as a preferred recreation site within the Goldbelt Travel Management Plan. As a result, migratory bird habitat is being protected within other areas of the cited plan by consolidating high density visitor use to this area.

Protective/Mitigation Measures:

None.

3.4 HERITAGE RESOURCES AND HUMAN ENVIRONMENT

3.4.1 PALEONTOLOGICAL RESOURCES

Affected Environment: The project area is located in the Garden Park Fossil Area that is internationally renowned for its Jurassic Morrison Formation deposits and the famous dinosaurs that have been excavated from there. The first dinosaurs were discovered in this area in the late 1800’s and are still being found there today. The Morrison Formation is a Class 5 paleontological resource because it is a highly fossiliferous geologic formation that consistently and predictably produces vertebrate fossils that are at risk of human caused adverse impacts or natural degradation (WO IM 2008-009). The Morrison Formation is overlain by the ridge forming Dakota Group that is also a Class 5 paleontological resource. Management concern for paleontological resources in this area is very high, and may involve pre work survey or on site monitoring during ground disturbing activity.

Environmental Effects

Proposed Action

Direct and Indirect Impacts:

The proposed action involves ground disturbing activity in the Dakota Formation. The Dakota Formation is a Class 5 paleontological resource. Although there are no known fossil sites in the immediate vicinity of the proposed trail, potential impacts to fossil localities would be both direct and indirect. Direct impacts to or destruction of fossils would occur from unmitigated activities conducted on formations with high potential for important scientific fossil resources. Indirect impacts would involve damage or loss of fossil resources due to the unauthorized collection of scientifically important fossils by workers or the public due to increased access to fossil localities in the Project Area. Adverse impacts to important fossil resources would be long-term and significant since fossils removed or destroyed would be lost to science. Adverse significant impacts to paleontological resources can be reduced to a negligible level through mitigation of ground disturbing activities. It is possible that the proposed project would have the beneficial impact that ground disturbing activities might result in the discovery of important fossil resources.

Protective/Mitigation Measures:

Once the trail is flagged, a pre-work survey must be conducted prior to any ground disturbing activity associated with new trail construction. The results of the pre-work survey may indicate that an on-site monitor will be needed during ground disturbing activity that affects bedrock of either Dakota and/or Morrison Formation outcrops. Once the trails are constructed regular monitoring would occur to determine if fossil resources are present and additional protection measures are warranted.

Cumulative Impacts:

Although the project area does not contain any known fossil resources, there is a possibility that ground disturbing work in the area may uncover fossil resources. Adverse significant impacts to paleontological resources can be reduced to a negligible level through mitigation of ground disturbing activities. It is possible that the proposed project would have the beneficial impact that ground disturbance activities might result in the discovery of important fossil resources. To prevent loss or destruction of paleontological resources, once the trail is constructed, it should be monitored annually for fossils that may be eroding out.

No Action Alternative

Direct and Indirect Impacts:

None

Protective/Mitigation Measures:

None.

3.5 LAND RESOURCES

3.5.1 RANGE MANAGEMENT

Affected Environment: The proposed action is primarily located within the Oil Well Flats Allotment #05083. The allotment is managed under the Improve category. Improve category allotments generally include the most intensive management employed on allotments within the Royal Gorge Field Office. Management strategies may include dormant season use, rest rotation schedules, multiple pastures, and/or specific forage utilization standards. Generally, BLM lands under more intensive management are fenced and managed separately from the permittee's private lands. This is an active allotment and grazing use is scheduled from November 1 through May 20 with 54 cattle. Cattle use is mostly limited to the drainages and open parks during the slower recreation periods. The increase in recreation use within the allotment has increased some conflict between recreation and grazing, particularly complaints about cattle damage to trails. There has also been an increase in incidences where cattle are 'pushed' as they tried to avoid people.

Trail 3 is located within the Miller Place Allotment #05211. The allotment is managed under the Custodial category. Custodial management is generally used on allotments that consist of relatively small, scattered parcels of public lands that are unfenced from large amounts of private land, are difficult to manage separately, and have limited resource issues. This is an active allotment and grazing use is scheduled from March 1 through February 28 with 2 cattle.

The permit renewal was conducted for the allotments in 2001 and 2010. As part of the renewal process BLM has solicited public involvement in the evaluation of grazing use on these allotments. There were no issues or concerns related to livestock grazing brought up as a result of this process. In addition, the allotments have undergone internal interdisciplinary team review through Public Land Health Assessments. The assessments were completed on these allotments in 2001 and 2010. The allotments did not have areas on public land that were determined to be "Not Meeting" applicable Standards for Public Land Health due to livestock grazing.

Environmental Effects

Proposed Action

Direct and Indirect Impacts:

The proposed new non-motorized trails would likely increase the level of known impacts when compared to the current situation. Complaints will continue to be received regarding damage to trails from cattle and as recreation use increases cattle will continue to be 'pushed' by people using the area. Trails added to the system that avoid the main

watering areas and open meadows where cattle tend to congregate would likely reduce these impacts.

- Trail 2 would locate users into treed areas avoiding meadows near the existing road where cattle tend to congregate.
- T5940G Extension will reduce the amount of recreation travel through the primary livestock watering area.
- Fire Canyon (T5941A) Re-location could be re-located out of the bottom of the wash to the greatest extent possible to separate grazing and recreation use.

This alternative would not affect access or uses of existing roads and trails for administering grazing operations. Authorized holders of grazing permits would still be allowed to drive on existing roads for the purpose of managing their grazing operations under this alternative. A number of the routes utilized in range management activities are included in the “Non-system” category under this alternative. The Non-system category includes routes that are closed to motorized use by the public but that may be used by authorized persons for administrative purposes. BLM grazing permittees will continue to be allowed vehicular use on Non-system roads needed for managing their operations. Occasional off road vehicle use will also be permitted for administrative purposes only and where such use does not result in undo resource damage. Vehicle use by permittees of BLM non-system roads for purposes other than official administrative duties will not be authorized. Permittees will only be allowed vehicle use on non-system roads on allotments where they hold a valid BLM grazing authorization.

Protective/Mitigation Measures:

- Since these are active allotments, gates and fences (if applicable) should be maintained to properly functioning condition.
- The grazing permittee will continue to require vehicle access to various parts of the parcel for range management purposes. The permittee will also need access across the parcel and across BLM in the NE¼ of section 35 (T.17 S., R. 70W.) with heavy equipment (backhoe, etc.) for maintaining an authorized spring development in the area.
- Educate trail users that this area is an active grazing allotment and visitors may encounter cattle and cow manure throughout the area.
- Install an administrative use sign on the red gate to let the public know that the BLM and its affiliates are allowed behind the gate for official BLM business. Other outreach measures should also be pursued.

Cumulative Impacts:

The allotments along with the surrounding lands suitable for grazing has a documented history of livestock grazing which was critical to support the mining, railroading, and ranching industries and local communities. Recently, development and recreation has increased significantly in the area. This has placed more pressure on the livestock industry both on public and private lands. Under this scenario recreation would be active in the area regardless of the construction of new non-motorized trails. Any negative cumulative impacts are minor.

No Action Alternative

Direct and Indirect Impacts:

No changes to current situation. Lack of control consisting of illegal trails and further development could create user and cattle conflicts in the future.

Protective/Mitigation Measures:

Same as proposed action.

Cumulative Impacts:

Same as proposed action.

3.5.2 FOREST MANAGEMENT

Affected Environment: The forest type found in the project area is pinyon and juniper woodlands. The pinyon IPS beetle has been active in the area of the field office over the past couple of years. The pinyon Ips beetle can produce 4 generations of beetles each summer. Cutting or pruning during the flight period can needlessly endanger trees.

Environmental Effects

Proposed Action

Direct and Indirect Impacts:

Trail construction usually involves pruning or removing of trees. Cutting or pruning activities must be conducted to avoid attracting additional Ips beetles to the area through the release of terpenes from fresh wood chips, slash, or wounded green trees.

Protective/Mitigation Measures:

No cutting or pruning of pinyon trees from April 1 through October 1 which is the pinyon IPS beetle flight period. Any wood over 3 inches in diameter should be cut into 2 foot section to speed up drying and avoid becoming beetle habitat.

Cumulative Impacts:

If protective mitigations are followed then there should be no impacts to the areas woodlands.

No Action Alternative

Direct and Indirect Impacts:

None

Protective/Mitigation Measures:

None

3.6 CUMULATIVE IMPACTS SUMMARY

Within the greater landscape a number of activities are occurring that have the potential to impact resources and result in cumulative impacts. These activities include subdivision development, mining, grazing and recreation use.

At the 6th level watershed scale, there is a relatively large amount of activities effecting soils. These include subdivisions, mining, grazing, and recreation. The further development of the trail system at Oil well Flats is not anticipated to negatively add to the overall soil function at this scale.

The allotments along with the surrounding lands suitable for grazing has a documented history of livestock grazing which was critical to support the mining, railroading, and ranching industries and local communities. Recently, development and recreation has increased significantly in the region. This has placed more pressure on the livestock industry both on public and private lands. Under this scenario recreation would be active in the area regardless of the construction of new non-motorized trails. Any negative cumulative impacts are minor.

This project would result in a long-term, moderate intensity disturbance in a small area. The proposed trail construction is not anticipated to result in negative cumulative impacts to wildlife species when viewed in conjunction with those activities currently occurring and reasonably certain to occur on adjacent State and private lands. The proposed trail construction is in addition to current existing trails and is not introducing a new human presence to the project area. Because the project area currently contains a developed trail system, the proposed action is not anticipated to result in an additive negative cumulative impact to wildlife.

Creating a trail yields the above impacts which are cumulative to recent disturbance at Park Center Well, hydrologic modification, exotic vegetation encroachment, private land disturbances and development and existing infrastructure such as the county road, pipelines and power-lines.

The area has been influenced by historic mining and grazing, over the past years. Currently, development of the surrounding private land and recreation of the public land is increasing exponentially. Cumulative impacts will be minimal if new non-motorized trails are restricted and managed to prevent new damage to vegetation and allow recovery.

CHAPTER 4 - CONSULTATION AND COORDINATION

4.1 LIST OF PREPARERS AND PARTICIPANTS

Prepared by: Kalem Lenard, Outdoor Recreation Planner

Please see Interdisciplinary Team Review list for BLM Participants

4.2 TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED

Lower Arkansas Mountain Bike Association
Fremont Adventure Recreation
Joe Stock, grazing permittee and private land owner
Wayne Shoemaker, grazing permittee

CHAPTER 5 - REFERENCES

Bureau of Land Management (BLM). 1996. Royal Gorge Resource Area Resource Management Plan and Record of Decision. Front Range District. Canon City, Colorado.

-----, 2008 H-1790-1 National Environmental Policy Handbook. Washington, D.C.

-----, 2003. Recreation-Gold Belt Travel Management Plan, Environmental Assessment CO-200-2003-0090 EA. Royal Gorge Field Office. Canon City, Colorado.

-----, 2003. Recreation-Garden Park and Shaws Park Acquisition Area Travel Management Planning, Environmental Assessment DOI-BLM-CO-2009-0019 EA. Royal Gorge Field Office. Canon City, Colorado.

Finding Of No Significant Impact (FONSI)

DOI-BLM-CO-200-2014-0027 EA

Based on review of the EA and the supporting documents, I have determined that the project is not a major federal action and will not have a significant effect on the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects from any alternative assessed or evaluated meet the definition of significance in context or intensity, as defined by 43 CFR 1508.27. Therefore, an environmental impact statement is not required. This finding is based on the context and intensity of the project as described below:

RATIONALE:

Context: BLM lands continue to provide an important recreation resource for communities in the West enhancing the quality of life of individuals, improving health and wellness and also aiding in economic development. Within this context the BLM has worked closely with recreation partners in enhancing the trail system within the Oil Well Flats area. This proposed action came from both input from groups, BLM staff recommendations, and solicited input from the public.

The project area is within a pinyon/juniper woodland within open meadow grasslands very typical of the region. There is an active winter grazing allotment. The area receives a moderate amount of recreation use that has increased over the past several years in association with the developed trail system. The area is also known for its rich paleontological resources and history.

The area is of local importance due to its proximity to the community of Canon City and the high quality recreation resources that it provides. The value of the area to the community has increased in recent years as trails have been developed. In time it could gain regional importance for the surrounding urban areas recreation.

Intensity:

I have considered the potential intensity/severity of the impacts anticipated from the Oil Well Flats, New Trail Construction Project decision relative to each of the ten areas suggested for consideration by the CEQ. With regard to each:

Impacts that may be beneficial and adverse:

There would be the largest benefit from the project to recreation resources including the community of Canon City and its residents both from a direct benefit to participants but also to local businesses connected with outdoor recreation.

Minor impacts are anticipated both from the construction and use of the trails such as removal of vegetation, exposed soil and crossing Fourmile Creek. Best management practices incorporated into the Proposed Action would greatly minimize these impacts. An increase in recreation use also poses impacts to resources such as invasive plants, range, and wildlife. Again, practices integrated into the proposed action serve to minimize these impacts.

Public health and safety:

The EA evaluated the proposed action and no concerns with public health and safety were identified.

Unique characteristics of the geographic area:

The EA evaluated the area of the proposed action. It is within the Garden Park Area of Critical Environmental Concern established to protect the unique paleontological resources of the area. Impacts to this resource were evaluated in the document and it was identified that there is potential for impact to this resource associated with unauthorized collection of specimens. Mitigation measures were identified to protect this resource including surveying the final trail alignment both pre and post construction to determine if fossils are present as well as conducting annual surveys of the trail system.

Degree to which effects are likely to be highly controversial:

The potential for controversy associated with the effects of the proposed action is low. There is no disagreement or controversy among ID team members or reviewers over the nature of the effects on the resource values on public land by the proposed action.

Degree to which effects are highly uncertain or involve unique or unknown risks:

Construction of trails and the subsequent recreation use has a long standing history in American culture and public lands. The effects are well understood and are not unique or unknown.

Consideration of whether the action may establish a precedent for future actions with significant impacts:

This decision is similar to many that have previously been made by the BLM in area where communities desire higher levels of development for recreation use. This decision will likely increase interest in the area for recreation use and potentially future demand for similar actions in the future both within the project area and other areas directly adjacent to communities. It is within the guidance provided by the RMP and it is not expected to establish a precedent for future actions. The decision does not represent a decision in principle about a future consideration. The decision does not represent a decision in principle about a future consideration.

Consideration of whether the action is related to other actions with cumulatively significant impacts:

Within the greater eco-region several other activities were identified that are contributing to impacts to resources such as range, wildlife, soils, noxious weeds, and water quality. It

was determined that this project does contribute to these impacts but at minor levels in a relatively small area and significant cumulative impacts were not identified.

Scientific, cultural or historical resources, including those listed in or eligible for listing in the National Register of Historic Places:

No scientific, cultural or historical resources were identified within the project area and there is not anticipated to be impacts to this resource.

Threatened and endangered species and their critical habitat:

One in-active bald eagle nest is known to occur adjacent to the project area. It is possible that a bald eagle could construct a nest in existing cottonwood trees nearer to the proposed action, but the topography and proximity to an existing paved county road would render a nest site that would more likely be affected by traffic, both bicycle and vehicular, along the roadway than a single track trail.

Three known sensitive plant species are known to occur in the project area. The proposed trails are not currently flagged on the ground; therefore, specific impacts to sensitive plant species are unknown. However, the construction of trails will create permanent surface disturbance and it is possible these trails could destroy BLM sensitive plants and or their habitat.

Any effects that threaten a violation of Federal, State or local law or requirements imposed for the protection of the environment: The proposed action conforms with the provisions of NEPA (U.S.C. 4321-4346) and FLPMA (43 U.S.C. 1701 et seq.) and is compliant with the Clean Water Act and The Clean Air Act, the National Historic Preservation Act, Migratory Bird Treaty Act (MBTA) and the Endangered Species Act.

NAME OF PREPARER: Kalem Lenard

SUPERVISORY REVIEW:

NAME OF ENVIRONMENTAL COORDINATOR: /s/ Martin Weimer

DATE: 12/5/14

SIGNATURE OF AUTHORIZED OFFICIAL:

/s/ Keith E. Berger
Keith E. Berger, Field Manager

DATE SIGNED: 12/11/14

APPENDICES:

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ROYAL GORGE FIELD OFFICE**

Decision Record

Project Name

DOI-BLM-CO-F02-2014-0027-EA

DECISION: It is my decision to authorize the Proposed Action as described in the attached EA. The BLM in cooperation with local groups and clubs will construct five new trails in the Oil Well Flats system in order to provide opportunities for a range of skill levels and a connection closer to Canon City. The BLM will also extend one trail to avoid travel through the livestock watering area to separate grazing and recreation use. Where the proposed trail All of the trails will be built with sustainability in mind to reduce impacts to soil and water resources as well as limit the financial burden of maintenance in the future. Any equipment used must be washed prior to entering the site to reduce the chance for the spread of noxious weeds. Spill kits and shovels would also be on site. Seasonal restrictions for vegetation removal would apply to protect forest health and migratory birds. The trail will be monitored by a paleontologist, qualified to hold a Paleontological Resource Use Permit on a cyclic basis of every 5 years to minimize any impact to protected fossil resources. A qualified paleontologist shall also be present during any trail construction or trail maintenance that would encounter bedrock.

The BLM worked with the affected grazing permit holders to develop the proposed action to minimize conflicts between grazing and recreation. Local trail user groups were also consulted. A press release provided notice of a public comment period from September 1st to October 1st that ran in the Pueblo Chieftan and the Canon City Daily Record. 3 of the comments that were received through this process were supportive of the proposed action. Two of the comments recommended adding additional trails to provide a wider range of experiences. The suggested trails were incorporated into the proposed action. The fourth comment was from the grazing permit holder supporting that the alternative to allow bikes on the Cooper Mountain Trail was not considered and also the importance of reducing conflicts between recreation and grazing.

An Environmental Assessment was completed and a Finding of No Significant Impact was reached.

RATIONALE: The BLM continues to focus on engaging the communities that they serve. The trail system at Oil Well Flats is quickly becoming an asset for the community of Canon City both from a personal benefit standpoint and a potential attraction for visitors contributing to the local economy. Within this context BLM recreation staff and local user groups identified the items in the proposed action to enhance these community goals. Design features of the proposed action are intended to reduce conflicts with grazing resources and minimize impacts to soils, noxious weeds, and paleontological resources. Public scoping has revealed very little opposition and overall support of enhancing the trail system as proposed.

MITIGATION MEASURES\MONITORING: No mitigation measures have been identified for this action. Design features were incorporated into the proposed action to minimize conflicts and impacts to resources. A paleontologist will monitor the site annually to minimize impacts to the unique paleontological resources of the project area.

PROTEST/APPEALS: Any appeal of this decision must follow the procedures set forth in 43 CFR Part 4. Within 30 days of the decision, a notice of appeal must be filed in the office of the Authorized Officer at the Royal Gorge Field Office, 3028 E Main Street, Canon City, Colorado, 81212. If a statement of reasons for the appeal is not included with the notice, it must be filed with the Interior Board of Land Appeals, Office of Hearings and Appeals, U.S. Department of the Interior, 801 North Quincy St., Suite 300, Arlington, VA 22203 within 30 days after the notice of appeal is filed with the Authorized Officer.

SIGNATURE OF AUTHORIZED OFFICIAL:

/s/ Keith E. Berger
Keith E. Berger, Field Manager

DATE SIGNED: 12/11/14