

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

**Environmental Assessment
for the Three Sisters - BLM Trail Connections**

Grand Junction Field Office
2815 H Road
Grand Junction, Colorado 81506

DOI-BLM-CO-130-2014-0011-EA

JANUARY 2015



The Bureau of Land Management is responsible for the stewardship of our public lands. It is committed to manage, protect, and improve these lands in a manner to serve the needs of the American people for all times. Management is based on the principles of multiple-use and sustained yield of our nation's resources within a framework of environmental responsibility and scientific technology. These resources include recreation; rangelands; timber; minerals; watershed; fish and wildlife; wilderness; air; and scenic, scientific and cultural values.

TABLE OF CONTENTS

CHAPTER 1 – INTRODUCTION	5
1.1 IDENTIFYING INFORMATION	5
1.2 PROJECT LOCATION AND LEGAL DESCRIPTION	5
1.3 PURPOSE AND NEED	7
1.4 PUBLIC PARTICIPATION	7
1.4.1 Public Scoping	7
1.4.2 Internal Scoping	7
1.4.3 Issues Identified	7
1.5 DECISION TO BE MADE	8
CHAPTER 2 – PROPOSED ACTION AND ALTERNATIVES	8
2.1 INTRODUCTION	8
2.2 ALTERNATIVES ANALYZED IN DETAIL	8
2.2.1 Proposed Action	8
2.2.2 No Action Alternative	8
2.3 PLAN CONFORMANCE REVIEW	9
CHAPTER 3 – AFFECTED ENVIRONMENT	10
3.1 INTRODUCTION	10
3.1.1 Elements Not Affected	11
3.1.2 Past, Present, Reasonably Foreseeable Actions	12
3.2 PHYSICAL RESOURCES	13
3.2.1 Soils (includes a finding on Standard 1)	13
3.2.2 Water (surface and groundwater, floodplains) (includes a finding on Standard 5)	14
3.3 BIOLOGICAL RESOURCES	16
3.3.1 Invasive, Non-native Species	16
3.3.2 Threatened, Endangered and Sensitive Species (includes a finding on Standard 4) ...	16
3.3.3 Vegetation (grasslands, forest management) (includes a finding on Standard 3)	18
3.3.4 Wildlife (includes fish, aquatic and terrestrial) (includes a finding on Standard 3) ...	19
3.4 HERITAGE RESOURCES AND HUMAN ENVIRONMENT	20
3.4.1 Cultural Resources	20
3.4.2 Paleontological Resources	21
3.4.3 Tribal and Native American Religious Concerns	22
3.4.4 Visual Resources	23
3.4.5 Transportation/Access	24
3.4.6 Wastes, Hazardous or Solid	26
3.5 LAND RESOURCES	26
3.5.1 Recreation	26
CHAPTER 4 - CONSULTATION AND COORDINATION	30
4.1 LIST OF PREPARERS AND PARTICIPANTS	30
Table 4.1– Potentially Impacted Resources	31
4.2 Tribes, Individuals, Organizations, or Agencies Consulted	32
CHAPTER 5 - REFERENCES	33

CHAPTER 1 – INTRODUCTION

1.1 IDENTIFYING INFORMATION

BACKGROUND: This EA has been prepared by the BLM to analyze proposed construction of two new trail connections between City of Grand Junction property and BLM-managed property in the Lunch Loop Trail System southwest of Grand Junction. The Three Sisters property was acquired in 2012 by the Mesa Land Trust, and was subsequently deeded to the City of Grand Junction, which also owns the property containing the Tabeguache Trailhead, the primary access to the popular Lunch Loop Trail System. A network of new trails is being developed on the Three Sisters property, with planned connections to existing trails on BLM property to provide new and improved recreation opportunities in the area. Since these trail connections cross BLM-managed lands, NEPA requires analysis of impacts to the area's resources and resource uses.

PROJECT NAME: Three Sisters - BLM Trail Connections

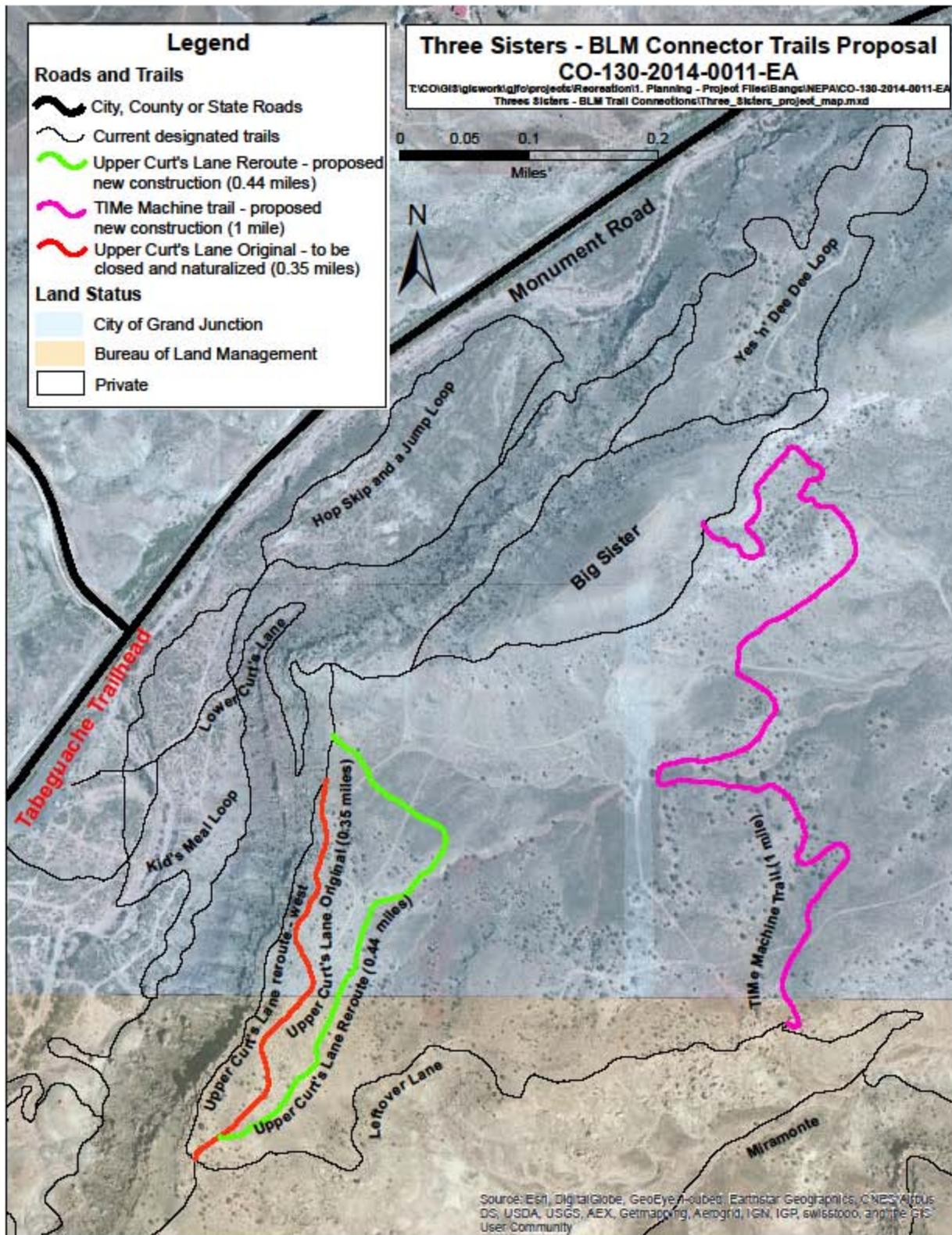
PLANNING UNIT: Grand Junction Field Office

1.2 PROJECT LOCATION AND LEGAL DESCRIPTION

LEGAL DESCRIPTION:

Ute PM, T. 1 S., R. 1 W., sections 21 and 28. Mesa County, Colorado.

See map below.



1.3 PURPOSE AND NEED

The purpose of the proposed action is to provide two sustainable trail connections between existing non-motorized trails on BLM-administered lands in the “Lunch Loops” area of the Bangs Canyon Special Recreation Management Area to existing and proposed trails in the adjacent Three Sisters Park owned by the City of Grand Junction and administered by the BLM. One of the proposed trails, TIME Machine, links the existing Leftover Lane trail to the southern and eastern portions of the Three Sisters Park and creates additional trail loop opportunities. The proposed Curt’s Lane reroute would replace a badly eroded and unsustainable section of trail that currently serves as a primary link between BLM and City of Grand Junction property. This reroute would also improve visitor safety by providing a primary route for downhill mountain bike traffic since uphill bike traffic and foot traffic could be directed to the existing Curt’s Lane west reroute which was constructed in 2011 (See DOI-BLM-CO-130-2010-0027-DNA, map ID number 6). The 2011 reroute created a more sustainable route than the original fall line section of Curt’s Lane, but due to resource concerns on the preferred realignment it was routed along steeper and more exposed terrain to the west of the preferred alignment. Heavy two-way traffic along this exposed section of trail resulted in concerns about safety for trail users. Consequently, the original route, which was identified for closure, has been left open pending development of a safer alternative. The two proposed trails would disperse recreational use, improve safety, and provide high quality recreation routes connecting BLM and City property, reducing the likelihood of user-created social trails.

1.4 PUBLIC PARTICIPATION

1.4.1 Public Scoping: Scoping, by posting this project on the Grand Junction Field Office NEPA website, was the primary mechanism used by the BLM to invite public involvement. No comments were received.

BLM Recreation Program staff worked with staff and volunteers from the Mesa Land Trust and Colorado Plateau Mountain Bike Trail Association (COPMOBA) to determine trail management objectives (types of use, level of difficulty, etc.) for the proposed trails. These three entities also collaborated on the final layout of the proposed routes, participating in several field trips to flag the routes.

1.4.2 Internal Scoping: Maps of the proposed trails and a description of the proposed action were distributed to the GJFO Interdisciplinary Team (IDT) through a NEPA notification document. The proposal was also discussed at IDT meetings. Survey requirements were identified for cultural resources, rare plants, and paleontology.

Documentation of which resources would be impacted based on internal scoping and site visits is included in Table 4.1.

1.4.3 Issues Identified: The BLM staff geologist surveyed the proposed trail alignments and found no vertebrate fossils. The Mesa Land Trust and COPMOBA contracted cultural and plant surveys. Plant surveys identified two rare plants (Colorado hookless cactus and Jones’ bluestar) within the proposed alignment of the proposed TIME Machine trail. Two subsequent reroutes of the proposed alignment produced an alignment that adequately avoided the plants of concern.

The cultural survey identified cultural sites along the original proposed alignment. A reroute was identified to avoid those sites.

1.5 DECISION TO BE MADE

The BLM will decide whether to approve the proposed Three Sisters – BLM Trail Connections project based on the analysis contained in this Environmental Assessment (EA). This EA will analyze the potential effects of constructing one new trail, constructing a reroute of another trail, and closing and naturalizing the original trail being replaced by the reroute. The BLM may choose to: a) accept the project as proposed, b) accept the project with modifications/mitigation, c) accept an alternative to the proposed action, or d) not authorize the project at this time. The finding associated with this EA may not constitute the final approval for the proposed action.

CHAPTER 2 – PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

The purpose of this chapter is to provide information on the Proposed Action and Alternatives.

2.2 ALTERNATIVES ANALYZED IN DETAIL

2.2.1 Proposed Action

The proposed action is to construct one new trail, construct a reroute of another trail, and close and naturalize the original trail being replaced by the reroute. The proposed new trail, TIME Machine (a memorial trail for Tim Sewell), would connect the existing Leftover Lane trail to the newly constructed Yes ‘n’ Dee Dee trail in the Three Sisters Park. It is approximately one mile in length. The Curt’s Lane reroute is approximately 0.44 miles in length. The portion of the original Curt’s Lane trail to be closed and naturalized is approximately 0.35 miles in length (see map above.) All new construction would be by volunteer crews using hand tools to build 18-20 inch wide full-bench tread using the standards and guidelines described in the GJFO Trail Design Criteria. The trails would be open to foot, bicycle and equestrian use. Closure and restoration/naturalization would include re-contouring to reestablish natural drainage patterns, and re-seeding using a mix of native seeds to stabilize the soil and reduce the encroachment of weeds. The BLM, Mesa Land Trust and COPMOBA would monitor route closures to ensure that recreation use does not continue to occur on those routes. If monitoring indicated continued use of closed routes, signs and/or barriers would be installed to more effectively implement the closures. The BLM and its partners would also monitor and maintain the new trails to ensure that they continued to meet design specifications and management objectives.

2.2.2 No Action Alternative

Under the No Action Alternative no new trails or reroutes would be constructed and the existing Curt’s Lane trail would not be closed and naturalized.

2.3 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: GRAND JUNCTION Resource Management Plan

Date Approved: JANUARY, 1987

Decision Number/Page: 2-20

Decision Language: To ensure the continued availability of outdoor recreational opportunities which the public seeks and which are not readily available from other public or private entities.

To protect resources, meet legal requirements for visitor health and safety, and mitigate resource user conflicts.

Name of Plan: Bangs Canyon Management Plan (Amended 1987 RMP)

Date Approved: August 1999

Decision Number/Page: 8

Decision Language: Emphasis on management of area will be for mountain bike and foot travel.

Name of Plan: Bangs Canyon Implementation EA (CO130-04-018) Decision Record and FONSI

Date Approved: April 5, 2006

Decision Number/Page: 6

Decision Language: Types of trails will include beginner to expert for hiking, biking and trail running; freeride/downhill biking trails; and instructional/biking trails.

Area 1 will be retained in BLM ownership to be managed in cooperation with the City of Grand Junction.

Page 77. Appendix C: Trail Management Objectives: Bangs Canyon Area 1 - The objective for the Area 1 trail system is a community-based, urban interface stacked loop trail system with a primary emphasis on hiking, running, and mountain biking trails... Creating sustainable trails to meet the demand for diverse trail opportunities is the primary objective in this area.

All routes will comply with the "Criteria for the Placement of Trails". Routes that do not meet the criteria will be closed, rerouted, or reworked to meet the criteria.

Page 91. Appendix I: Implementation Strategy: Trails - Highest priority would be given to maintaining existing trails and trail systems to the Criteria for the Placement of Trails standards. This includes rerouting unsustainable sections of existing systems and the closure or relocation of un-sustainable routes.

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 public 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.

CHAPTER 3 – AFFECTED ENVIRONMENT

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.

This EA draws upon information compiled in the Grand Junction Resource Area RMP (BLM 1987).

3.1.1 Elements Not Affected

The following elements, identified as not being present or not affected will not be brought forward for additional analysis:

Air Quality and Climate Change- There haven't been dust concerns or air quality issues due to the recreational uses in the area and the air quality is considered to be meeting the National Ambient air quality standards. The Proposed Action would close approximately 0.07 acres of Curt's Lane and build approximately 0.09 acres of new rerouted tread. Initially, until the closed trail is successfully stabilized, there may be some increase in dust due to a new trail and the closed trail. Once the closed route is stable, however, the difference from the current conditions would not be measurable. The one mile of the TIME Machine trail would disturb up to 0.40 acres of soil that has an erodible rating for wind erosion. The disturbance, however, is long and narrow, which would produce less dust than a wide opening. The 20 inch wide tread is unlikely to create measurable amounts of dust.

Areas of Critical Environmental Concern – There are no ACECs within the proposed project area.

Farmlands, Prime and Unique – The Proposed Action would not directly or indirectly impact any prime farmlands of state or local importance, nor would it impact any unique farmlands, as classified by the Natural Resource Conservation Service.

Fire/Fuels – There are no active or proposed fuels treatment projects in this area which would be impacted by this action.

Floodplains/Flood Hazards - The Proposed Action is located in an upland area and would not directly or indirectly affect the functionality of a floodplain or increase the flood hazard.

Geological/Mineral Resources – There are no unique geological features or economically valuable mineral resources in the vicinity of the proposed trails.

Land Tenure, ROW, Other Uses – There are no rights-of-ways or other similar authorized uses that would be impacted by this project.

Range – The area related to the proposed action is not within an active grazing allotment.

Special Status Wildlife – see special status species section below

Social/Economic – This is a small project that would provide additional connections to an existing trail system. The project would not have major social or economic impacts.

Wetlands/Riparian Zones – There are no riparian zones or wetland areas that would be impacted by the project.

Special Designations – The only special designation in the project area is the Bangs Canyon Special Recreation Management Area which is analyzed in the Recreation section

Wild and Scenic Rivers – There are no eligible, suitable or designated WSR segments in the vicinity of the proposed project

Wild Horse and Burros – The area within the proposed action is not within a Wild Horse Herd Management area.

Wilderness – There are no Wilderness areas, WSAs or inventoried lands with wilderness characteristics within the proposed project area

3.1.2 Past, Present, Reasonably Foreseeable Actions

NEPA requires federal agencies to consider the cumulative effects of proposals under their review. Cumulative effects are defined in the Council on Environmental Quality (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...or person undertakes such other actions.” The CEQ states that the “cumulative effects analyses should be conducted on the scale of human communities, landscapes, watersheds, or airsheds” using the concept of “project impact zone” or more simply put, the area that might be affected by the proposed action. The area that may be affected by this project includes Area 1 (Lunch Loops Trail System) of the Bangs Canyon Special Recreation Management Area (SRMA). To assess past, present and reasonably foreseeable actions that may occur within the affected area a review of GJFO NEPA log and our field office GIS data was completed. The following list includes all past, present and reasonably foreseeable actions known to the BLM that may occur within the affected area:

Past Actions:

- Curt’s Lane west reroute was constructed in 2011 (See DOI-BLM-CO-130-2010-0027-DNA, map ID number 6)
- Construction of Leftover Lane Trail in 2009
- Mesa Land Trust acquisition of Three Sisters property in June, 2012
- Construction of Hop, Skip and a Jump, and Yes-n-Dee-Dee trails on Three Sisters Property in 2012 and 2013.

Present Actions:

- Cooperative management of the area by the BLM, City of Grand Junction, Mesa Land Trust and COPMOBA
- Maintenance of existing trail network
- Development of user-created social trails

Reasonably Foreseeable Actions:

- Mesa Land Trust acquisition of “Bookends” properties to the north and south of the Tabeguache Trailhead and Three Sisters property (2014-15)
- Additional trail development on newly acquired MLT properties in the area
- Increasing recreational use of the Tabeguache/Lunch Loop trail system

3.2 PHYSICAL RESOURCES

3.2.1 Soils (includes a finding on Standard 1)

Current Conditions:

Soil information is based on previous environmental assessments completed in the area and the Natural Resource Conservation Service's Soil Survey for Mesa County. No field assessment was done. From the Bangs Trail Proposal (CO-130-2012-0014EA), the overall landscape appears to be currently meeting Land Health Standard 1 for upland soils. Natural geologic erosion is the predominant factor in the area, with some travel routes causing site specific accelerated erosion. Where trails are located in shale derived soils or shale outcrops, there tends to be more erosion concerns, with wider tread widths increasing the amount of erosion.

The proposed trail locations are primarily within a large soil mapping unit of Berto-Roygorge-Rock Outcrop complex, 5-15% slopes, extremely stony. Although the soil survey is not intended for use at a route level, the size of the mapping unit and the trails' interior location make it reasonable to assume the unit covers most of the proposed action. A complex is used to depict soils that are so intermixed that they cannot be mapped separately. The complex where the trails are proposed has soils that were formed in colluvium over residuum weathered from sandstone and is generally 20% rock outcrop. The soils are shallow, with bedrock within two feet of the surface. The complex has a low to moderate k factor, indicating that the complex is not easily eroded by water. Wind erodibility is also low. Due to the shallowness of the soils, they have a low tolerance for erosion before overall productivity is adversely affected. For off road motorcycle trails, the complex is somewhat limited due to some dust from the Berto loam soils. There is a moderate erosion hazard for roads and trails due to slope and erodibility. Moderate limitations mean that there is some erosion likely, and that occasional maintenance and erosion control measures are needed.

The BLM portion of the proposed TIME route is mapped as a Rock Outcrop-Biedsaw complex, 25-65% slopes, extremely bouldery. This information is derived from the Grand Junction GIS soil layer. The Web Soil Survey labels the area as a different soil mapping unit- but aerial photographs do not appear to support the web's map. The soil complex is roughly 55% rock outcrop and 30% Biedsaw soil. Due to the large amount of rock, this complex is not rated for land uses but the properties of the soil components can be considered, recognizing that the interspersed rock outcrops would affect the response of the soil to water and wind erosion. The Biedsaw soil is formed in colluvium derived from sandstone and shale over residuum weathered from clayey shale. It generally occurs on the backslope of mesas. The surface texture is a very cobbly clay loam, with silty clays approximately 1.5 feet from the surface. The soil has a slow permeability and rapid runoff. It is considered somewhat limiting for off-road motorcycle trails, due to dust. It is considered very limited in use for paths and trails due to slope and dust. The complex was rated in previous environmental assessments as having severe erosion hazards for roads and trails. It is important to note that the soil mapping unit is for slopes ranging from 25-65%. Although the grad of the proposed trail was not provided, it does not cross any slopes of 30% or steeper.

No Action:

Under the No Action Alternative, the opportunity to close Upper Curt's Lane, which is an unsustainable eroding route, would be postponed again or foregone. Use would continue on the route and there is a greater potential for additional user created routes connecting the Park and the public lands. User created routes are often located on too steep of slopes or on highly erosive soils that can result in much greater soil loss than on a carefully designed trail. Standard 1 would still be expected to be met on a landscape scale, but the accelerated soil losses in specific areas (Upper Curt's Lane) would continue and possibly increase.

Cumulative Effects:

Due to the proximity of the Three Sisters area to a large population center, user demand is expected to continue and to increase. Without a well-designed trail system connecting the city property to the public lands, users will continue to create their own trails, which are often unsustainable and result in greater erosion problems than a planned trail. Long-term soil health and stability could be impacted, with the area no longer meeting Standard 1.

Proposed Action:

The Proposed Action would create two additional trails totaling 1.44 miles in length, for up to 0.58 acres of new disturbance. The current Upper Curt's Lane that has been identified for closure due to poor resource conditions could finally be closed and rehabilitated. The proposed routes follow the Field Office "Criteria for the Placement of Trails" to help reduce the accelerated erosion that results from creating trails, especially in the TIME portion on public lands, where there are severe to very severe erosion hazards.

Previous environmental assessments for the Bangs Canyon SRMA have raised the question of whether the BLM should approve additional routes. There were concerns that various erosion and drainage problems remain unaddressed and additional routes only increase the maintenance workload and reduce the BLM's management capability of the entire route system in this area. The Proposed Action would reduce the erosion issues with the Upper Curt's Lane. The new TIME trail, even with best management practices for trail location, construction and drainage, would disturb up to 0.40 acres of soil (depending on backslope disturbance during construction) and increase the soil loss that area. It also adds to the total mileage of trails that require maintenance to reduce accelerated soil erosion and excessive soil loss. At this time, it appears that the Proposed Action would not keep the SRMA from meeting Land Health Standard 1. It would address a localized soil problem by closing an eroding trail.

Cumulative Effects:

Continued recreational use and increases in use would be expected to continue. The development of a trail system, with sustainable trails, can help reduce user created trails. A trail system requires consistent maintenance, with the early identification of erosion concerns and implementation of best management practices, to help protect overall long-term soil health and sustainability.

3.2.2 Water (surface and groundwater, floodplains) (includes a finding on Standard 5)

Current conditions:

The Proposed Action is located within intermittent/ephemeral drainage basins that historically were tributary to the Gunnison River, just upstream of the confluence with the Colorado River. The watersheds of the small drainages do not include any perennial surface water, seeps, or springs. The Upper Curt's Lane routes are in the upper part of the drainage where most of the TIME route is located. The Proposed Action would not affect groundwater quality or directly affect any surface waters. The Power Canal now intercepts the drainages, and runoff, if any, no longer reaches the river. There are no water quality standards for irrigation canals, although accelerated erosion could result in increasing the salinity of the water and depositing sediment in the canal. The arid hot climate, gentle slopes, and distances to the canal would reduce the amount of runoff reaching the canal from the trails, especially the BLM segments. During high intensity rainstorms, however, the drainages could flush out accumulated sediments and transport it to the canal.

From previous environmental assessments, it appears that the area is considered to be meeting Standard 5 for water quality. Erosion for the most part is considered to be at natural or geologic levels. Approximately 0.28 miles of the TIME trail (0.03 miles BLM) and 0.11 miles of the Upper Curt's Lane reroute (all on BLM) are within a designated "salinity reduction area". Approximately 0.09 miles of the original Upper Curt's Lane is also within this area, with the Proposed Action closing 0.06 miles of this segment.

No Action:

Under the No Action Alternative, the opportunity to reduce erosion and improve watershed conditions in the Upper Curt's Lane area would be postponed or foregone. The route is actively eroding and continuing use could just exacerbate the resource impacts. The TIME route, which provides an eastern connection from the city park to public lands, would not be constructed. The TIME trail is proposed on more erodible saline soils that currently do not appear (from aerial photos) to have high trail density like the western area (Curt's Lane and No Thoroughfare Canyon) contains. The ability of the area to continue to meet Land Health Standard 5 would not be affected, however, localized issues on an existing trail would not be improved.

Cumulative Effects:

The proximity to a large population base and the current network of trails make it highly likely that recreational use would continue to increase in the area. As trail conditions deteriorate from this use, user created trails may attempt to provide alternate routes to spread people out, increase the recreational opportunities, and avoid poor trail conditions. Unfortunately, user created trails are not full bench trails that provide proper drainage and sustainable routes, and can greatly increase watershed degradation. Over time, the localized areas with resource concerns would increase.

Proposed Action:

The Proposed Action helps disperse users across the landscape by providing an eastern trail (TIME) to access the public lands. This can help improve overall trail conditions and help reduce user created trails. The new TIME trail does, however, cross erodible saline soils, which can increase potential down drainage impacts. The proposed route crosses intermittent drainages directly (the route is perpendicular to the drainage), which helps minimize impacts to the drainage. Full bench construction and other design features also help insure that runoff does not

travel the route and result in accelerated erosion and runoff. Although a new route would still result in some increased erosion from the trail, overall benefits would outweigh this impact. The closure and rehabilitation of Upper Curt's Lane would finally occur and a more sustainable route would replace it. The Proposed Action would not affect the overall ability of the area to continue to meet Land Health Standard 5, and would improve a localized problem.

Cumulative Effects:

The Proposed Action adds additional mileage that requires consistent maintenance. As use continues or increases, the pressure for additional trails could be expected to increase. As the trail density increase, erosion problems in upper areas could compound resource concerns lower in the drainage. Economic impacts could occur due to increased sediment and salt loading to irrigation canals, requiring more canal maintenance and water treatment. Identifying and being able to respond in a timely manner to erosion concerns would be essential to protecting overall watershed health and uses.

3.3 BIOLOGICAL RESOURCES

3.3.1 Invasive, Non-native Species

Current Conditions:

The general area of the project was inventoried for noxious weeds by the Weed program in 2004. There were no listed noxious weeds noted for the proposed area. Ubiquitous weeds of the area are Russian thistle (tumbleweeds), halogeton, and cheatgrass. These species were not cataloged in the inventory.

No Action:

Under the no action, there would be no new construction and Curt's Lane would not be rehabilitated. Theoretically, with no new disturbance, one might expect a decreased chance of new weeds, because these plants thrive on disturbances.

Proposed Action:

The proposal to close and rehabilitate one trail, and construct two others would disturb the soil and provide an opportunity for weed invasion. However, the trails are narrow and see a lot of traffic, which in itself would help prevent new weeds from establishing and going to seed. The closure and rehabilitation of Curt's Lane would more than likely be the place for weeds to start. A successful re-seeding would help native plants out-compete the annual weeds in the long run.

Cumulative Effects:

Collectively, over the landscape, transportation corridors (roads and trails) are primary vectors of weed spread. The larger the vehicle, the more the vehicle chassis and tires can trap weed seeds. For this project, the primary vehicles are bicycles, and the disturbance is small-scale. On the landscape scale, this project would have minimal impact from a weed perspective.

3.3.2 Threatened, Endangered and Sensitive Species (includes a finding on Standard 4)

Current conditions:

Biological surveys were completed for the project by WestWater Engineering (WWE) in 2014. While the project area contains suitable habitat for six special status plants, Colorado hookless cactus and Jones' bluestar were the only rare plants documented during the survey. Approximately 153 individual bluestar plants were recorded along the Time Machine Trail, with some occurring within the proposed trail disturbance area. Minor redesign of the Time Machine Trail was completed and follow-up surveys of the new alignment were completed to ensure avoidance of the Jones' bluestar. One Colorado hookless cactus was recorded about 30 meters from the proposed Upper Curt's lane Trail.

Due to ambiguity in the visual characteristics used to key out the cactus, BLM is currently waiting on the results of genetic testing to confirm the species of the cactus. Until results are received, cacti in this area will be considered the listed species *Sclerocactus glaucus*, and avoidance would be required in project design.

No special status wildlife or fish species or their habitats occur in the action area. Special status bat species may use adjacent areas particularly where water sources are present, however these do not occur immediately around the action area. Cliffs in the area are not of sufficient size to provide habitat for cliff nesting raptors. Migratory birds may nest in the action area and could be disturbed during trail construction particularly if it were to occur during the peak breeding season (May 15 to July 15).

Due to the majority of the project area occurring on private land, and being outside of a BLM grazing allotment, a Land Health Assessment (LHA) has not been completed for the project area. Private lands are typically not included in LHAs, and the Standards do not apply to private lands.

No Action:

There would be no direct effects from the No Action alternative if the trails were not constructed, and the Upper Curt's Lane Trail would not be rerouted. However, indirect effects would be difficult to predict as the City of Grand Junction may decide to build trails on their private land, and BLM would have no involvement or management connection to the trail design. Trail expansion would likely occur over time as private trails are created, and rare plant values would not be considered in the trail design.

While Land Health Standards do not apply to private land, under the No Action alternative the new trails would not be permitted by BLM. However, trails would likely be constructed on the private land without consideration of rare plant locations, thus the No Action alternative could lead to greater impacts on the recorded rare plants, and be detrimental to the ability of the areas to meet Standard 4.

Cumulative Effects:

Cumulative effects for the No Action alternative are speculative at best, as the BLM has no management authority on the adjacent private land, where the proposed trails would be built. Development of the private land would be expected over time, and the rare plant habitat could be converted or completely lost if development were to occur.

Proposed Action:

The Proposed Action includes building two new trails, and decommissioning one existing trail. Direct effects to the Colorado hookless cactus are not expected as the cactus are located over 20 meters away from the proposed trail. While direct effects to the Jone's bluestar are possible, the trail reroute around the plants should greatly reduce the risk of impacts. Indirect effects to the Jone's bluestar and Colorado hookless cactus may include habitat fragmentation, increased dust deposition on individual plants, and disruption of pollinator species that ultimately effect reproduction. The closest Jone's bluestar plant is approximately 25 feet from the trail, with approximately 1/3 of the plants occurring within 50 feet of the trail, and the closest cactus is about 30 meters from the trail. Impacts to nesting migratory birds may occur if vegetation removal is conducted during peak breeding season (May 15- July 15).

While Land Health Standards do not apply to private land, under the Proposed Action alternative the new trails would be permitted by BLM, and trail design would incorporate rare plant protection measures. The Proposed Action could reduce impacts to the recorded rare plants, and not impact the ability of the area to meet Standard 4.

Cumulative Effects:

The Proposed Action is likely to increase recreational use of the Lunch Loops trail system. While the increase in miles of trails, and users may negatively affect rare plants and their habitat, the partnership with the City of Grand Junction in trail design is expected to lead to greater resource protection; as special status plants are not protected on private land unless there is a federal nexus. Depending on the condition of the private land, increased trails through weedy areas could lead to weed spread, and ultimately habitat degradation if not addressed promptly.

Mitigation Measures:

Vegetation disturbance for trail construction should not occur between May 15 and July 15 to avoid impacting nesting migratory birds during the peak of breeding season. If construction does occur during this time migratory bird surveys would be needed, to ensure direct destruction of nests is avoided surveys should be coordinated with the BLM Biologist (Heidi Plank 424-3095).

3.3.3 Vegetation (grasslands, forest management) (includes a finding on Standard 3)

Current conditions:

The project area is mainly composed of saltbush desert shrublands and grasslands, with the woody vegetation consisting of Gardner's saltbush and widely scattered juniper trees. The most common grass type is galletagrass. Non-native halogeton and Russian thistle are abundant throughout the project area. Common plants observed within the project area are: fourwing saltbush, redstem filaree, snowball sand verbena, broom snakeweed, Indian ricegrass, halogeton, wild onion, winterfat, Wyoming big sagebrush, and tufted evening primrose.

Due to the majority of the project area occurring on private land, and outside of a BLM grazing allotment, a Land Health Assessment (LHA) has not been completed for the project area. Private lands are typically not included in LHA's. It would be expected that vegetative conditions are satisfactory with existing disturbances limited to high intensive managed recreation.

No Action:

Under the No Action alternative no new routes would be constructed and the rehabilitation of an existing route would not occur. There would be no additional disturbance to vegetation because no new construction would occur.

While Land Health Standards do not apply to private land, under the No Action alternative the new trails would not be permitted by BLM. However, trails would likely be constructed on the private land without consideration of vegetation, thus the No Action alternative would not change Standard 3 on public lands but could lead to greater impacts on private land.

Cumulative Effects:

The proximity to a large population base and the current network of trails make it highly likely that recreational use would continue to increase in the area. As trail conditions deteriorated from this use, user created trails could attempt to provide alternate routes to spread out people, increase the recreational opportunities, and avoid poor trail conditions. Unfortunately, user-created trails are not full bench trails that provide proper drainage and sustainable routes, and can greatly increase vegetation degradation. Over time, the localized areas with resource concerns would increase.

Proposed Action:

The Proposed Action includes building two new trails, and decommissioning one existing trail. The building of new trails would involve removal of vegetation from the new trail area. Proper trail construction techniques would limit the disturbance. The total amount of area and vegetation disturbed would be minimal. Constructing planned trails with proper techniques and removing trails in marginal areas would lead to a marginal impact to vegetation.

While Land Health Standards do not apply to private land, under the Proposed Action alternative the new trails would be permitted by BLM, and trail design would incorporate vegetation protection measures. The Proposed Action would not have an overall impact to Standard 3.

Cumulative Effects:

The Proposed Action would add additional mileage that would require consistent maintenance. As use continues or increases, the pressure for additional trails could be expected to increase. As the trail density increased, erosion problems in upper areas could compound resource concerns lower in the drainage. Identifying and being able to respond in a timely manner to disturbance concerns would be essential to protecting overall vegetative health.

3.3.4 Wildlife (includes fish, aquatic and terrestrial) (includes a finding on Standard 3)

Current conditions:

The action area includes overall winter range for mule deer but does not contain critical or severe winter range for deer or elk. The area is also likely to contain mountain lions, and a variety of small mammals and birds. Currently this area receives a heavy amount of recreational use and it is expected that wildlife that remain in this area are to some extent acclimated to the presence of humans. No aquatic habitat occurs within the action area.

Due to the majority of the project area occurring on private land, and being outside of a BLM grazing allotment, a Land Health Assessment (LHA) has not been completed for the project area. Private lands are typically not included in LHA's, and the Standards do not apply to private lands.

No Action:

There would be no direct effects from the No Action alternative if the trails were not constructed, and the Upper Curt's Lane Trail would not be rerouted. However, indirect effects would be difficult to predict as the City of Grand Junction may decide to build trails on their private land, and BLM would have no involvement or management connection to the trail design. Trail expansion would likely occur over time as private trails are created, and rare plant values would not be considered in the trail design.

While Land Health Standards do not apply to private land, under the No Action alternative the new trails would not be permitted by BLM. However, trails would likely be constructed on the private land, because this area is currently degraded wildlife habitat due to heavy recreational use, the No Action alternative is not expected to impact the areas' ability to meet Standard 3.

Cumulative Effects:

Cumulative effects for the No Action alternative are speculative at best, as the BLM has no management authority on the adjacent private land, where the proposed trails would be built. Development of the private land would be expected over time, which could further impact wildlife populations in the area.

Proposed Action:

The Proposed Action includes building two new trails, and decommissioning one existing trail. Consolidation of trails may benefit individual small mammals and birds; generally the proposed action is not expected to impact the quality or quantity of wildlife habitat in the action area because the action area is already heavily impacted by recreational use.

While Land Health Standards do not apply to private land, the Proposed Action alternative is not expected to impact the ability of the area to meet Standard 3.

Cumulative Effects:

The Proposed Action is likely to increase recreational use of the Lunch Loops trail system. While the increase in miles of trails, and users has the potential to negatively affect wildlife and their habitat, the partnership with the City of Grand Junction in trail design is expected to lead to greater integrated trail planning for the area overall, including habitat on adjacent private land.

3.4 HERITAGE RESOURCES AND HUMAN ENVIRONMENT

3.4.1 Cultural Resources

Current conditions:

Class III inventory of the area of potential effect (APE), as defined in the National Historic Preservation Act (NHPA), for the three proposed trail connectors was completed by Uncompahgre Archaeological Consultants in March, 2014 under BLM cultural resource

inventory report numbers 14514-01 and 14514-01a (OAHN No. ME.LM.R858). The survey located four cultural resource sites within the APE (5ME19805- 5ME19808, all prehistoric), one of which (5ME19808, a prehistoric sheltered camp and lithic procurement area) has been determined eligible for listing on the National Register of Historic Places (NRHP). The inventory also located 14 isolated finds (5ME19809-19820, 5ME19826, and 5ME19827), all determined not eligible for listing on the NRHP.

No Action:

Direct and Indirect Effects:

The proposed connectors would not be constructed, so there would be no impacts to cultural resources.

Cumulative Effects:

The proposed connectors would not be constructed, so there would be no impacts to cultural resources.

Proposed Action:

Direct and Indirect Effects: Direct effects to sites near or on trails typically occur during trail construction, which includes ground disturbing activities. Indirect effects can occur when trail-users collect artifacts or vandalize sites, or can include effects to rock shelters that are visible from the trail, but not directly within the trail.

Site 5ME19808 is identified as a prehistoric sheltered camp and lithic procurement and processing site, and includes a trash dump within the site boundaries that is recorded as part of the site but is *not* historic. The proposed TIME Machine trail cuts through the base of this trash dump, but does not directly impact the eligible prehistoric components of the site. The BLM believes the proposed trail would likely not indirectly affect the prehistoric component, as access off the trail is difficult due to topographical features. Users are unlikely to casually visit this portion of the site, as they would have to climb above a boulder cliff to access the prehistoric component.

Cumulative Effects:

In addition to the direct and indirect effects that occur with trail construction and use, continued use of a trail has potential for cumulative effects to sites by the gradual total removal of surface artifacts through casual, unauthorized collection, or by creating more unauthorized trails, which could then impact sites. Site 5ME19808 could experience cumulative effects due to its proximity to the proposed trail.

Protective/Mitigation Measures:

To monitor for potential indirect or cumulative effects, the BLM would monitor 5ME19808 after trail construction for a period of three years to determine if impacts are taking place. If indirect or cumulative effects are noted, further mitigation actions would be taken in consultation with the Colorado SHPO.

3.4.2 Paleontological Resources

Current conditions:

The BLM GIS paleontological site database was reviewed and revealed there are no known vertebrate fossil sites within one mile of either proposed routes. A pre-construction paleontological survey was completed for proposed trail segments impacting the Jurassic age Morrison Formation, a Class 4-5 geologic unit using the BLM Potential Fossil Yield Classification (PFYC) system (IM 2008-009), because it has a high potential to produce vertebrate fossils. No vertebrate fossil resources were found in the project area.

The surface geology of the area impacted by the routes is also composed of the Cretaceous age Burro Canyon and Dakota Formations, and Quaternary age alluvium. The Burro Canyon and Dakota Formations have a moderate potential to contain fossilized dinosaur bones or tracks, and in this region are classified by the BLM as a Class 3. The alluvium geologic unit has less potential to contain fossilized vertebrate resources and is classified as a Class 2.

No Action:

Direct and Indirect Effects: None of the routes would be constructed, so no new paleontological sites would be found, nor damaged.

Cumulative Effects:

There would be no additional paleontological knowledge gained, and there would be no additional negative impact to paleontological resources in the area.

Proposed Action:

Direct and Indirect Effects: If paleontological resources are present within the route corridors, they could be discovered during construction of the new route, preserved, and studied. They could also be accidentally impacted by equipment during construction.

Cumulative Effects:

If new paleontological sites are found, they would increase the knowledge of paleontological resources within the region. If fossil resources are damaged, it would add to unknown damages occurring to paleontological resources in the region.

Protective/Mitigation Measures:

If vertebrate fossils or trace fossils are found during construction, work would stop in the immediate area and the BLM Geologist/Paleontology Coordinator would be notified. If the site is determined to be a significant vertebrate fossil site, the route would be re-aligned. If the route can't be re-aligned, the newly discovered fossils would be removed and curated at a local museum.

3.4.3 Tribal and Native American Religious Concerns

Current conditions:

American Indian religious concerns are legislatively considered under several acts and Executive Orders, namely the American Indian Religious Freedom Act (ARPA) of 1978 (PL 95-341), the Native American Graves Environmental Assessment Protection and Repatriation Act (NHPA) of 1990 (PL 101-601), and Executive Order 13007 (1996; Indian Sacred Sites). In summary, these require, in concert with other provisions such as those found in the NHPA and ARPA, that the federal government carefully and proactively take into consideration traditional and religious

Native American culture and life and ensure, to the degree possible, that access to sacred sites, the treatment of human remains, the possession of sacred items, the conduct of traditional religious practices, and the preservation of important cultural properties are considered and not unduly infringed upon. In some cases, these concerns are directly related to “historic properties” and “archaeological resources”. In some cases elements of the landscape without archaeological or other human material remains may be involved. Identification of these concerns is normally completed during the land use planning efforts, reference to existing studies, or via direct consultation. Tribal consultation was conducted via correspondence in November of 2014. The Ute Mountain Ute, Northern Ute, and Southern Ute tribes had no concerns about the project.

No Action:

Direct and Indirect Effects: None known to the agency.

Cumulative Effects:

None known to the agency.

Proposed Action

Direct and Indirect Effects: The Ute have a generalized concept of spiritual significance that is not easily transferred to Western models or definitions. As such the BLM recognizes that they have identified sites that are of concern because of their association with Ute occupation of the area as part of their traditional lands. Due to project design, trails would not be placed on cultural resources sites and no tribal access to the area would be impacted. The direct and indirect effects to cultural resources potentially associated with the Ute are the same as those identified in section 3.4.1.

Cumulative Effects:

Potential cumulative effects to cultural resources possibly associated with the Ute people are the same as those analyzed in 3.4.1.

Protective/Mitigation Measures:

If sites of interest to local tribes are found during inventory consultation, additional consultation which could include field visits to evaluate the sites, and discussions on the effects of the project could occur and appropriate protection measures would be incorporated into the Proposed Action before implementation.

3.4.4 Visual Resources

Current conditions:

The area in which the project is proposed is managed under VRM Class II objectives. Under VRM Class II objectives, the existing character of the landscape should be retained. The level of change to the landscape should be low. Management activities may be seen, but should not attract attention.

The visual resource inventory (VRI) for the area was updated in 2009. The overall VRI rating is Class II, high valued scenic resources. The area provides a back drop to Grand Junction and can be seen from nearby residences and other public lands (Colorado National Monument).

Based on a viewshed analysis, the project could be seen from short sections of Little Park Road (less than ¼ mile). The project would not be visible from Monument Road.

No Action:

Direct and Indirect Effects: None known

Cumulative Effects:

None known.

Proposed Action:

Direct and Indirect Effects: Due to the low visibility of the project, it is anticipated that the project would conform to VRM Class II objectives. The character of the landscape would be retained and the project would not attract the attention of the casual observer. As such, the undeveloped landscape that is valued by the community and local residents would not be impacted.

Cumulative Effects:

The new trail sections would add to the existing trails in the area. The cumulative effect of new surface disturbance could result in a degradation of scenic resources valued by the local communities. Design features of sustainable trail construction, namely constructing trails that follow the contours of the surrounding topography would repeat the natural lines in the landscape and thereby reduce visibility of trails and protect scenic resources.

3.4.5 Transportation/Access

Current conditions:

The proposed project area lies within the Lunch Loop Trail System which is primarily accessed from the Tabeguache Trailhead on Monument Road. Monument Road and the trailhead parking area are paved and accessible by two-wheel drive vehicles. Travel within the trail system is limited to designated routes for all types of use, including foot and equestrian use. The trail system is generally open to non-motorized (foot and equestrian) and mechanized (mountain bike) recreation and closed to motorized vehicles. Several trails in the area have special travel designations, such as one-way directional trails and use-specific designations (bicycle only, foot only). Much of the trail system has been redesigned and rebuilt over the past 10 years to address numerous trail sustainability issues in a trail system that consisted largely of user-created routes that had not been formally planned or analyzed. In addition to rerouting unsustainable trails and trail segments, many new trails have been formally added to the system to improve trail connectivity, and to create a trail network that provides a diversity of high quality non-motorized recreation opportunities.

The upper portion of the original Curt's Lane trail follows the fall line down a ridge and has eroded substantially over the course of the last 20 years. As described in the "Purpose and Need" section above, due to safety concerns, this segment remained open following completion of a reroute (shown on map as upper Curt's Lane reroute – west). That trail segment is used heavily by downhill mountain bike traffic. The reroute to the west is used more regularly for uphill

traffic than downhill traffic. Curt's Lane is one of two primary access routes from the Tabeguache Trailhead into the interior of the Lunch Loop Trail System which receives an estimated 122,000 visits annually. Upper Curt's Lane is one of the most heavily used trails in the entire Lunch Loop Trail System.

The recently acquired access to the Three Sisters property has allowed additional expansion of the area's trail network. Several new loop trails have been constructed on the Three Sisters property, with connections to the Kids Meal trail and lower Curt's Lane on City of Grand Junction property. None of the new Three Sisters trails constructed so far have made a direct connection to trails on BLM-managed land, however several social trails have developed between the "Big Sister" trail (south side of Big Sister) and upper Curt's Lane on City-owned property.

No Action:

Direct and Indirect Effects: Under this alternative no new access to the trail system would be provided in the short-term, and heavy recreational use would continue to be focused on the existing upper Curt's Lane trail segments, including the original unsustainable and eroding fall line section. Use of existing social trails, and the creation of new ones, would likely continue as trail users continued to seek alternate routes connecting designated trails in the Three Sisters area to designated trails in the BLM portion of the Lunch Loop Trail System.

Cumulative Effects:

Ongoing increases in recreational use of the Lunch Loop Trail System, along with development of new trails on the Bookend properties would contribute to increased congestion on the area's existing connector trails, including Curt's Lane.

Proposed Action:

Direct and Indirect Effects: Construction of the proposed TIME Machine trail would provide a new access route from recently constructed trails on the Three Sisters property to Leftover Lane on BLM property. The addition of this route would help disperse use and reduce congestion on the area's existing routes, including Curt's Lane. It would also provide a more direct route for accessing the eastern side of the Lunch Loop Trail System from the north.

In combination with the 2011 reroute, the new reroute of the original upper Curt's Lane would provide a safe and sustainable arterial route for uphill and downhill traffic along this popular trail corridor.

Recreation use and access would be minimally impacted on a short-term basis during construction of the new routes and restoration/closure of the old route. These impacts would primarily consist of short delays when encountering work crews in transit to the work sites. Continuous access would be available to all current designated routes during construction since the original Curt's Lane route would remain open until completion of the new reroute.

As a result of the new access provided by the TIME Machine Trail, the loops in the Three Sisters area, and the Leftover Lane, and Miramonte trails would likely receive moderately higher use than they currently experience.

Cumulative Effects:

The addition of these new proposed routes, along with the development of new trails on the Bookend properties, and ongoing increases in recreational use of the Lunch Loop Trail System, would continue to draw attention to this area's recreation opportunities, likely resulting in heavier use of the trail system overall, and more concentrated use at the primary access points like the Tabeguache Trailhead.

3.4.6 Wastes, Hazardous or Solid

Current conditions:

Solid and hazardous wastes are not a part of the natural environment.

No Action:

There would be no impacts.

Cumulative Effects:

There would be no cumulative effects under this alternative.

Proposed Action:

The construction of the trail segments would not introduce hazardous wastes since only hand tools would be used. The nature of the use (pedestrian and bicycle traffic) would not be expected to introduce hazardous wastes. Promoting use of the property could result in solid waste (litter). If litter is left where deposited it might result in visual degradation, but it would not likely result in a threat to human health or the environment.

Cumulative Effects:

Continued deposition of litter with no removal would gradually result in negative visual impacts in the immediate area. However, regular cleanup efforts would remedy this.

3.5 LAND RESOURCES

3.5.1 Recreation

Current conditions:

As discussed above in sections 1.1 and 1.3, the proposed project area lies within the Lunch Loop Trail System which is within Area 1 of the Bangs Canyon Special Recreation Management Area. The trail system is managed for day-use non-motorized recreation and provides a variety of recreation opportunities, settings and outcomes using a stacked loop trail network.

Primary recreation activities include mountain biking, hiking, trail running and dog walking. Recreationists use the area year-round, with the heaviest use occurring during the spring and fall months. The trails are very popular as a close-to-home, urban interface amenity for residents of the Grand Valley. Many local recreationists visit the area on a regular basis. Spikes in use occur daily in the early morning, mid-day, and evening. The trail system has also attracted attention as a regional, national and international destination for mountain biking.

Area visitors typically seek one or more of the following outcomes: improved physical fitness; testing one's skills, abilities, and equipment; socializing with friends and family; and relieving stress. The trail system is also an important community asset that provides significant community benefits including: improved quality of life for area residents; stronger community relationships and a healthier community; increased desirability of the community as a place to live; and a strengthened economy through recreation-related revenue.

The physical setting is an urban interface zone that is bounded by county and city roads. The character of the landscape is largely natural in appearance, with some viewsheds that include roads, trails, houses and other man-made developments. Due to topography and area scenery, the natural landscape is mostly retained despite the density of trails and proximity to the City of Grand Junction. Recreation-support facilities include the Tabeguache Trailhead which includes parking for approximately 100 vehicles, a two-hole vault toilet, and informational kiosk with a map of the trail system.

The social setting generally consists of small to moderate sized groups (5-10 people) with larger groups frequently congregating at or near the trailhead. Visitors to the area typically encounter 5-15 other groups and/or individuals, and encounters are more frequent near the trailhead and on primary arterial routes like Curt's Lane. Sights, sounds and tracks of other users are prevalent throughout the trail system, but more prominent near the trailhead. The BLM estimated that approximately 122,000 recreation-related visits occurred in the Lunch Loop Trail System in federal fiscal year 2014.

Visitor services and management include: a trail system map and other visitor information messages at the trailhead kiosk; handout maps available onsite and online; trail intersection signs showing trail names, difficulty ratings and travel management designations; and maintenance of designated trails by BLM staff and/or partner organizations like COPMOBA, the Hilltop Trail Crew and the Mesa Land Trust. The Tabeguache Trailhead is the primary access point for recreationists using the Lunch Loop Trail System. The City of Grand Junction owns the trailhead and the adjacent Three Sisters property and maintains the restroom and parking area. The BLM manages the trail system, including the portions on City property. The City of Grand Junction and the BLM maintain a memorandum of understanding (MOU) that defines and documents this partnership.

Interactions between area visitors are generally positive, however, during peak use periods the volume of visitors sometimes results in diminished recreation experiences, and occasional negative interactions between visitors. Observed and reported user interaction issues have included: trail crowding; uncontrolled dogs; passing on singletrack trails (including trail users going in opposite directions, and going the same direction at different speeds); collisions or near-collisions between mountain bikers and other users.

Since the acquisition of the Three Sisters property in 2012, the Mesa Land Trust has partnered with COPMOBA and the BLM to design and build several new singletrack trails on the Three Sisters property. Those trails have proven to be popular as stand-alone loop trails, as well as alternatives to lower Curt's Lane for reaching upper Curt's Lane and trail system's core area on

BLM-managed lands to the south. The original upper Curt's Lane and the 2011 western reroute are the only two designated routes connecting the Three Sisters trails to the eastern portion of the larger trail system. Several shortcut social trails have developed between the Three Sisters trails and upper Curt's Lane. Erosion and recreation use has rutted and widened parts of the original upper Curt's Lane, changing the character of the formerly narrow singletrack trail to a 4-5 foot wide rutted route. COPMOBA recognized the need to reroute this unsustainable trail segment, but expressed concern about the safety of directing high-volume two-way traffic onto the 2011 western reroute. The BLM agreed to leave the original route open until it could identify and authorize an appropriate alternative route to disperse use along the busy Curt's Lane corridor.

To create new recreation opportunities, and to improve access to the southeastern portion of the Three Sisters Property, COPMOBA and the Mesa Land Trust identified the need and desire for developing a new trail from the saddle between the Big Sister and Middle Sister to the Leftover Lane trail. Those two organizations worked with the BLM to identify a route that met their mutual conservation and recreation opportunity needs. The proposed TIME Machine trail alignment is the result of those partnership efforts. COPMOBA and the Mesa Land Trust have also partnered with the family of Tim Sewell to use memorial contributions toward the construction of a new trail.

No Action:

Direct and Indirect Effects: Under this alternative no new trails would be provided in the short-term, and heavy recreational use would continue to be focused on the existing upper Curt's Lane trail segments, including the original unsustainable and eroding fall line section. The SRMA recreation objectives described above would likely be affected over time since, without the addition of the proposed trails, the trail system would be less likely to accommodate anticipated increases in recreation use while still maintaining desired activities, outcomes and settings. User interactions would remain largely unchanged.

Desired recreation opportunities identified by BLM partners (COPMOBA and Mesa Land Trust) would not be provided, potentially compromising future partnership opportunities with those organizations.

Use of existing social trails, and the creation of new ones, would likely continue as trail users continued to seek alternate routes connecting designated trails in the Three Sisters area to designated trails in the BLM portion of the Lunch Loop Trail System.

Cumulative Effects:

Not developing the proposed trails, along with anticipated increases in recreational use of the Lunch Loop Trail System, and development of new trails on the Bookend properties would likely contribute to increased congestion on the area's existing trails, potentially hampering attainment of SRMA objectives, and compromising partnership efforts with COPMOBA, Mesa Land Trust, and the City of Grand Junction.

Proposed Action:

Direct and Indirect Effects: Construction of the proposed TIME Machine trail would provide a new recreation opportunity that would support the Bangs Canyon SRMA recreation objectives

described above. The new trail would be compatible with the activities, outcomes and settings provided by the existing Three Sisters trails and Leftover Lane. The new route would allow non-motorized recreationists the opportunity to enjoy and explore area not previously accessible by designated routes. The opportunity provided by the new route would likely increase use on the adjacent trails to the north and south of the new route. The new route would help disperse use that is currently concentrated on upper Curt's Lane, thus reducing congestion and improving user safety and satisfaction. This would also likely promote positive user interactions and reduce negative user interactions.

In combination with the 2011 reroute, the new reroute of the original upper Curt's Lane would provide safer and more sustainable recreational opportunities for uphill and downhill traffic along this popular trail corridor. The closure of the original route would eliminate a recreation opportunity that is currently popular for some recreationists, particularly downhill mountain bike traffic. The proposed Curt's Lane reroute has been designed to retain a similar character (fast and flowy for mountain bikes) to the original route. It would be important to construct the trail carefully in order to match the prescribed design criteria and trail management objectives. That would provide a suitable alternative downhill route, and offset the loss of the original route.

The addition of the two proposed trails would provide improved recreation opportunities and trail connectivity between the Three Sisters trails and adjacent BLM-managed trails, reducing the need for the social trails that currently dissect the area. Eliminating those social trails would help restore a more natural-appearing recreation setting character.

Recreation use and access would be minimally impacted on a short-term basis during construction of the new routes and restoration/closure of the old route. These impacts would primarily consist of short delays when encountering work crews in transit to the work sites. Continuous access would be available to all current designated routes during construction since the original Curt's Lane route would remain open until completion of the new reroute.

Cumulative Effects:

The addition of these new proposed routes, along with the development of new trails on the Bookend properties, and ongoing increases in recreational use of the Lunch Loop Trail System, would continue to draw attention to this area's recreation opportunities, likely resulting in heavier use of the trail system overall, and more concentrated use at the primary access points like the Tabeguache Trailhead. The cumulative sum of new trails on City-owned property and adjacent BLM property would support the SRMA recreation objectives described above, as well as promote positive user interactions. These trail system enhancements would help foster continued partnership efforts between the BLM, COPMOBA, Mesa Land Trust and the City of Grand Junction.

CHAPTER 4 - CONSULTATION AND COORDINATION

4.1 LIST OF PREPARERS AND PARTICIPANTS

INTERDISCIPLINARY REVIEW

NAME	TITLE	AREA OF RESPONSIBILITY
Julia Christiansen	Natural Resource Specialist	Surface Management and Permitting for Oil & Gas
Natalie Clark	Archaeologist	Cultural Resources, Native American Religious Concerns
Chris Pipkin	Outdoor Recreation Planner	Access, Transportation, Recreation
Andy Windsor	Outdoor Recreation Planner	VRM, Wilderness, Special Designations
Jim Dollerschell	Range Management Specialist	Range, Wild Horse & Burro Act
David Scott Gerwe	Geologist	Minerals, Geology, Paleontology
Alan Kraus	Hazardous Materials Specialist	Hazardous Materials
Robin Lacy	Realty Specialist	Land Tenure/Status, Realty Authorizations
Heidi Plank	Wildlife Biologist	T&E Species, Migratory Bird Treaty Act, Terrestrial & Aquatic Wildlife
Anna Lincoln Nikki Grant-Hoffman	Ecologist Science Coordinator	Land Health Assessment, Range Ecology, Special Status Plant Species
Christina Stark	Planning & Environmental Coordinator	Environmental Justice, Prime & Unique Farmlands, Environmental Coordinator, Riparian and Wetland
Paula Belcher	Hydrologist	Soils, Air Quality, Water Quality, Hydrology, Water Rights
Mark Taber	Range Management Specialist	Weed Coordinator, Invasive, Non-Native Species
Jeff Phillips	Fire Ecologist Natural Resource Specialist	Fire Ecology, Fuels Management

Table 4.1– Potentially Impacted Resources

Resources	Not Present On Location	No Impact	Potentially Impacted	Mitigation Necessary?	BLM Evaluator Initial & Date	Comments
PHYSICAL RESOURCES						
Air and Climate	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PLB 12/30/2014	
Water (surface & subsurface, floodplains)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PLB 12/31/2014	
Soils	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PLB 12/30/2014	
Geological/Mineral Resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DSG 3/3/14	
BIOLOGICAL RESOURCES						
Special Status Plants	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ARL 8/12/14	Minor redesign or trail necessary to avoid rare plants
Special Status Wildlife	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HLP 8/27/14	
Migratory Birds	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	HLP 8/27/14	Construct outside migratory bird peak breeding season
Other Important Wildlife Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HLP 8/27/14	
Vegetation, Forestry	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	JRD 8/26/14	Removal of existing vegetation nothing substantial
Invasive, Non-native Species	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MT 3/20/14	Negligible impact
Wetlands/Riparian Zones	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CS 5/12/14	
HERITAGE RESOURCES AND HUMAN ENV.						
Cultural or Historical	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NFC 12/16/14	Monitoring of cultural resources
Paleontological	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DSG 3/3/14	Pre-construction surveys will be completed the week of March 10, 2014.
Tribal& American Indian Religious Concerns	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NFC 12/16/14	
Visual Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CPP 8/26/14	
Social/Economic	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CPP 8/26/14	
Transportation and Access	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CPP 8/26/14	
Wastes, Hazardous or Solid	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AK 8/5/14	
LAND RESOURCES						
Recreation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CPP 8/26/14	
Special Designations (ACEC, SMAs, WSR)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CPP 8/26/14	
Wilderness & Wilderness Characteristics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CPP 8/26/14	
Range Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	JRD 8/26/14	

Resources	Not Present On Location	No Impact	Potentially Impacted	Mitigation Necessary?	BLM Evaluator Initial & Date	Comments
Wild Horse and Burros	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	JRD 8/26/14	
Land Tenure, ROW, Other Uses	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RBL 8/7/14	
Fire/Fuels	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	JP 5/22/14	

4.2 Tribes, Individuals, Organizations, or Agencies Consulted

Mesa Land Trust
 Colorado Plateau Mountain Bike Trail Association (COPMOBA)
 Ute Mountain Ute Tribe
 Northern Ute Tribe
 Southern Ute Tribe

CHAPTER 5 - REFERENCES

Bureau of Land Management (BLM). 1985. Draft Resource Management Plan and Environmental Impact Statement. Grand Junction Field Office. Grand Junction, Colorado.

Bureau of Land Management. 1987. Grand Junction Resource Area Resource Management Plan and Record of Decision. Grand Junction District. Grand Junction, Colorado.

Bureau of Land Management. 1988. H-1790-1 National Environmental Policy Handbook. Washington, D.C.

Bureau of Land Management. 2004. Resource Management Plan and Record of Decision for the Colorado Canyons National Conservation Area and Black Ridge Canyons Wilderness. Grand Junction Field Office. Grand Junction, Colorado.

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
GRAND JUNCTION FIELD OFFICE**

FINDING OF NO SIGNIFICANT IMPACT

**Three Sisters – BLM Trail Connections
DOI-BLM-CO-130 2014-0011-EA**

Based on the analysis of potential environmental impacts contained in the attached environmental assessment, and considering the significance criteria in 40 CFR §1508.27, I have determined that the Proposed Action would not have a significant effect on the human environment. An environmental impact statement is therefore not required.

BACKGROUND

The Bureau of Land Management prepared an Environmental Assessment which analyzed the effects of closing one 0.35 mile segment of existing trail and constructing two new trail segments (totaling 1.44 miles) connecting City of Grand Junction property and BLM-managed property in the Lunch Loop Trail System southwest of Grand Junction, Colorado. This proposed action was initiated by the Mesa Land Trust, Colorado Plateau Mountain Bike Trail Association (COPMOBA) and the BLM to achieve recreation management objectives while protecting natural and cultural resources. A no action alternative was analyzed in addition to the proposed action. Additional background information is included in the EA.

Intensity

I have considered the potential intensity/severity of the impacts anticipated from the Three Sisters – BLM Trail Connections Project decision relative to each of the ten areas suggested for consideration by the CEQ. With regard to each:

1. Impacts that may be both beneficial and adverse.

This project may have minor long-term impacts to soils, vegetation, wildlife and cultural resources, however, these impacts are not significant. This project would provide new trails and recreation opportunities that will produce beneficial outcomes for individual recreationists as well as the broader community.

2. The degree to which the proposed action affects public health and safety.

The proposed action would improve public health and safety by dispersing trail users, which reduces the potential for collisions and other user conflicts. The upper Curt's Lane reroute addresses the safety concern of concentrating two-way traffic on the exposed segment of the 2011 Curt's Lane reroute.

3. Unique characteristics of the geographic area such as proximity of historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

The project lies within a popular urban interface zone and the Bangs Canyon Special Recreation Management Area where management is focused on providing high quality, close-to-home recreation opportunities. The project has been modified to avoid or minimize impacts to rare plants and cultural resources. There are no municipal water supplies, riparian areas, prime farmlands, wetlands or wild and scenic rivers within the project area. Therefore, these resources would not be impacted by the project.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The development and management of trails on the Three Sisters property and adjoining BLM managed lands has been widely supported by the Grand Valley community, and by recreationists using the Lunch Loop Trail System. Therefore the environmental effects are not likely to be controversial.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

This area has a long history of trail-based recreation use. The effects of this use are well-known and pose no unique or unknown risks.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

This decision is like one of many that have previously been made and will continue to be made by BLM responsible officials regarding recreation trail development and management on public lands. The decision is within the scope of the Resource Management Plan and is not expected to establish a precedent for future actions. The decision does not represent a decision in principle about a future consideration.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

There are no significant cumulative effects on the environment, either when combined with the effects created by past and concurrent projects, or when combined with the effects from natural changes taking place in the environment or from reasonably foreseeable future projects.

Utilizing best management practices for sustainable trail design, construction and maintenance would minimize cumulative impacts to soil and water resources, and protect overall soil and watershed health. Coordinated trail management by the BLM, Mesa Land Trust and COPMOBA on City of Grand Junction and BLM land is expected to result in a long-term net benefit for rare plants and cultural resources since protection of these resources might not have been considered on the City property if not for the NEPA analysis required by this EA.

8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources.

There would be no adverse impacts to the above resources. The project has been modified to avoid impacts to cultural and historic resources.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

Resource surveys were completed and the project was designed to avoid direct and indirect impacts to Colorado hookless cactus. No impacts are expected to endangered or threatened species or their designated critical habitats.

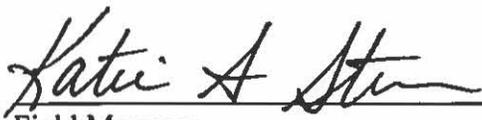
10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

This decision complies with other Federal, State, or local laws and requirements imposed for the protection of the environment.

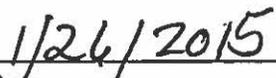
FINDING OF NO SIGNIFICANT IMPACT

On the basis of the information contained in the EA, and all other information available to me, it is my determination that: 1) the implementation of the Proposed Action will not have significant environmental impacts beyond those already addressed in the "Record of Decision and Resource Management Plan," (January 1987); (2) the Proposed Action is in conformance with the Resource Management Plan; and (3) the Proposed Action does not constitute a major federal action having a significant effect on the human environment. Therefore, an environmental impact statement or a supplement to the existing environmental impact statement is not necessary and will not be prepared.

This finding is based on my consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR §1508.27), both with regard to the context and to the intensity of the impacts described in the EA.



Field Manager
Grand Junction Field Office



Date

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
GRAND JUNCTION FIELD OFFICE
2815 H Road, Grand Junction, CO 81506**

DECISION RECORD

**Three Sisters – BLM Trail Connections
DOI-BLM-CO-130-2010-0011-EA**

DECISION:

It is my decision to authorize the Proposed Action as described in DOI-BLM-CO-130-2010-0011-EA (see Section 2.2.1). The proposed action is to construct one new trail, construct a reroute of another trail, and close and naturalize the original trail being replaced by the reroute. These trails all lie within the Lunch Loop Trail System southwest of Grand Junction, Colorado and provide connections between the Three Sisters property owned by the City of Grand Junction, and BLM-managed Federal lands.

This decision is contingent on meeting all mitigation measures and monitoring requirements listed below.

Public involvement in the development of this proposal included collaboration with the Mesa Land Trust and the Colorado Plateau Mountain Bike Trail Association (COPMOBA). This included assistance with trail design and layout, as well as financial resources to contract cultural and plant surveys required by NEPA. The BLM Grand Junction Interdisciplinary Team reviewed and analyzed the proposal, and crafted project modifications to address resource issues identified during analysis. Public notification was completed by listing this project on the Grand Junction Field Office web site. No public comments were received for this project.

This office completed an Environmental Assessment and reached a Finding of No Significant Impact for the proposed action.

RATIONALE:

The decision to authorize the proposed action is based on the need for new and safer trails and recreation opportunities that will produce beneficial outcomes for individual recreationists as well as the broader community, while protecting natural and cultural resources in the Lunch Loops Trail System. This need was identified by the Mesa Land Trust, COPMOBA and BLM Recreation Program staff. The original proposal was modified to meet resource protection objectives while still achieving recreation management objectives. The project also reinforces the BLM's ongoing community partnerships with the Mesa Land Trust, COPMOBA and the City of Grand Junction.

MITIGATION MEASURES\MONITORING:

Wildlife

- Vegetation disturbance for trail construction should not occur between May 15 and July 15 to avoid impacting nesting migratory birds during the peak of breeding season. If construction does occur during this time migratory bird surveys will be needed, to ensure direct destruction of nests is avoided surveys should be coordinated with the BLM Biologist (Heidi Plank 424-3095)

Cultural

- To monitor for potential indirect or cumulative effects, the BLM will monitor 5ME19808 after trail construction for a period of three years to determine if impacts are taking place. If indirect or cumulative effects are noted, further mitigation actions will be taken in consultation with the Colorado SHPO.
- If sites of interest to local tribes are found during inventory consultation, additional consultation which could include field visits to evaluate the sites, and discussions on the effects of the project could occur and appropriate protection measures will be incorporated into the Proposed Action before implementation.

Paleontology

- If vertebrate fossils or trace fossils are found during construction, work will stop in the immediate area and the BLM Geologist/Paleontology Coordinator will be notified. If the site is determined to be a significant vertebrate fossil site, the route will be re-aligned. If the route can't be re-aligned, the newly discovered fossils will be removed and curated at a local museum.

PROTEST/APPEALS:

This decision shall take effect immediately upon the date it is signed by the Authorized Officer, and shall remain in effect while any appeal is pending unless the Interior Board of Land Appeals issues a stay (43 CFR §2801.10(b)). 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 Grand Junction Field Office, 2815 H Road, grand Junction, Colorado, 81506. 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.

NAME OF PREPARER: Chris Pipkin

NAME OF ENVIRONMENTAL COORDINATOR: Christina Stark

DATE: 1/26/15

SIGNATURE OF AUTHORIZED OFFICIAL:



 Grand Junction Field Manager

DATE SIGNED: 1/26/2015