
Appendix M

Travel Management Plan

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

**Grand Junction Field Office
Travel Management Plan**

Grand Junction Field Office
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Grand Junction, Colorado 81506



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ACRONYMS AND ABBREVIATIONS

Full Phrase

ATV	all-terrain vehicle
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
ERMA	Extensive Recreation Management Area
ESA	Endangered Species Act
FLPMA	Federal Land Policy and Management Act
GJFO	Grand Junction Field Office
NEPA	National Environmental Policy Act
OHV	off-highway vehicle
RMP	Resource Management Plan
RMZ	Recreation Management Zone
ROD	Record of Decision
SHPO	State Historic Preservation Office
SRMA	Special Recreation Management Area
TMP	Travel Management Plan
WEPP	Water Erosion Prediction Program

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1. Introduction

Travel management is the process of identifying the system of roads, primitive roads, and trails that are designated/authorized for continual use. These roads and trails will provide for various access needs and uses of the public lands, from recreation to oil and gas and livestock management operations, into the future. When completed, the travel management plan becomes the approved system of roads and trails that the BLM commits to maintaining into the future. New routes will be added as needed to accommodate use and provide for recreation opportunities. The approved travel network will continue to evolve and change over time.

During travel management planning, the BLM considers the needs and desires for the public to get to various destinations and locations on the public lands, while also considering the ways that roads and trails affect or “impact” the sensitive resources that must be protected under various natural resources law that also guide the decisions of the BLM under the concepts of multiple use and sustained yield and many other environmental laws.

Due to the sometimes competing needs for use and protection of the public lands, and given that the current roads and trail system developed over time, travel management planning fulfills dual purposes. The general goal is to identify those existing routes that should become part of the long-term system of approved roads and trails because they access a needed or valuable destination or experience, while not causing unacceptable impacts to another feature. In addition to creating a commitment to future access, travel management plans also function as restoration plans, in that they remove from the permanent system those roads and trails that have developed over time and, through improper placement or design, are causing unacceptable impacts to other features or natural resources. Once this initial weighing is done of what should remain open and what must be closed, new routes can be added over time, with the kind of proper design that protects other resources while still ensuring that the route system as a whole functions for its intended uses.

This Travel Management Plan (TMP) supplements travel management land use allocations and planning decisions to be made in the Grand Junction Field Office (GJFO) Record of Decision (ROD) and Approved Resource Management Plan (RMP). Decisions and implementation actions not made in the RMP will be addressed in this TMP and the subsequent, associated ROD. This document will set forth a plan to manage GJFO’s designated system of roads, primitive roads and trails, access and uses. Specifically, the TMP summarizes the proposed area designations outlined in the PRMP, followed by an outline of the criteria used for designation of routes across the field office, outlines the implementation-level route designations, and explains the implementation process and standard operating procedures (including the zone-specific guidance for Zone L). Attachments provide additional plans on signing, educational efforts, rehabilitation, and engineering of the established travel network.

The project area for the GJFO TMP includes approximately 1.06 million acres of public lands administered by the GJFO, Northwest District Office of the Bureau of Land Management. Travel management is the process of planning for and managing access and travel systems on public lands. The Grand Junction Field Office (GJFO) Travel

Management Plan (TMP) is written in conformance with the *Grand Junction Field Office Proposed Resource Management Plan (PRMP)*.

The GJFO TMP is based upon extensive public participation and workshops, as well as structured interdisciplinary team analysis. The BLM recognizes the importance of access for public visitation, scientific studies, and administrative uses, while providing for the protection of natural and cultural resources. The evaluation process incorporated the four minimization criteria set forth by 43 Code of Federal Regulations (CFR) 8342.1 (a-d), as well as additional planning criteria established in the GJFO RMP, and created a designated route system consistent with land use allocations.

Outcomes-based recreation management, the approach adopted by the GJFO, is a recreation management philosophy that focuses on the positive and beneficial outcomes derived from recreational activities, rather than emphasizing the recreation activities themselves. It promotes quality recreation experiences from the visitors' or users' perspectives. Outcomes-based provides the conceptual recreation framework to view, plan, and collaboratively deliver recreation services as a means to a larger end – an end in which outcomes benefit individuals, communities, economies, and the environment. By conducting outcomes-based analysis, recreational settings can be better delineated and managed. In outcomes-based analysis, priority is given to resource dependent recreation. Resource dependent recreation is that which can only be done where the natural resource or setting exists. An example is running for fitness versus nature hiking. Fitness running can be done on a treadmill or anywhere a suitable surface exists. Nature hiking requires a natural setting and things to observe along the way. Hiking would not be suitable indoors or in unnatural settings, thus it is a resource dependent recreation.

Approved transportation routes identified for recreation purposes will include opportunities and quality experiences for all user groups, including hikers, backpackers, equestrians, bicycles, ATVs, four-wheel-drive vehicles, motorcycles, backcountry aircraft pilots, hunters, and fishers. However, one should not interpret that all users will be accommodated in all areas.

1.1 Background

Approximately 42 percent of the planning area is currently designated as open to cross-country off-highway vehicle (OHV) use, 44 percent is limited to existing or designated roads and trails, 11 percent has seasonal limitations, and three percent is closed to OHV use.

Areas with designated routes typically do not contain trails built with consideration for sustainability, resource concerns or conditions, or recreation experiences. Most routes either follow historic routes, such as those for grazing, mining, or administrative access, or they were user created. In either case, the trails do not always provide desirable recreation experiences and have unmitigated impacts to natural or cultural resources.

Travel management historically focused specifically on motor vehicle use. A shift in the accepted paradigm has caused the BLM to develop a more comprehensive travel

management process which encompasses all forms of transportation, including travel by foot, horseback, and mechanized vehicles such as bicycles, as well as the numerous forms of motorized vehicles from two-wheeled (motorcycles) and four-wheeled all-terrain vehicles (ATVs) to cars and trucks.

Many routes within the GJFO were constructed to create access to public land improvements, timber and vegetation management projects, gas and mineral development, range management, and various ROWs. Of these routes, many were not necessarily intended to be left behind or open for recreational use, but have become popular routes for visitors engaged in mechanized and motorized recreation activities. Some routes were created or pioneered by visitors. Open travel designations that permit cross-country mechanized and motorized use, high levels of use, and improvements in mechanized and motorized vehicle technology have allowed public land users to gain access to and through more terrain. These routes are not typically maintained by the BLM; rather, it is the repeated passage of vehicles that maintains these routes. Not designed, but created, these routes are often rutted and eroded.

1.2 Laws, Regulations, Policies and Program Guidance

The process of considering and providing appropriate access is guided by a complex series of more than fifteen major individual laws, as well as additional regulations and policies defining the type of access and recreational experiences that should be provided while protecting the sensitive resources (e.g., fish, wildlife, plants, and archaeology) that the federal government is also required to protect and conserve on the public lands. The trade-offs required by these individual laws are not always straightforward or linear, and in some cases, they may even conflict. The process of finding this balance, between present-day use and enjoyment and conservation for future generations, is known as multiple use management, and is one of the defining factors of the BLM's mission.

Currently, the Code of Federal Regulations (CFR) establishes the criteria for designating public lands with respect to OHVs and for establishing controls governing the use and operation of OHVs. Non-motorized and non-mechanized uses have been addressed in this planning effort, and decisions made will be incorporated into supplemental rules for enforcement purposes.

Laws and regulations that influence or direct travel management planning include:

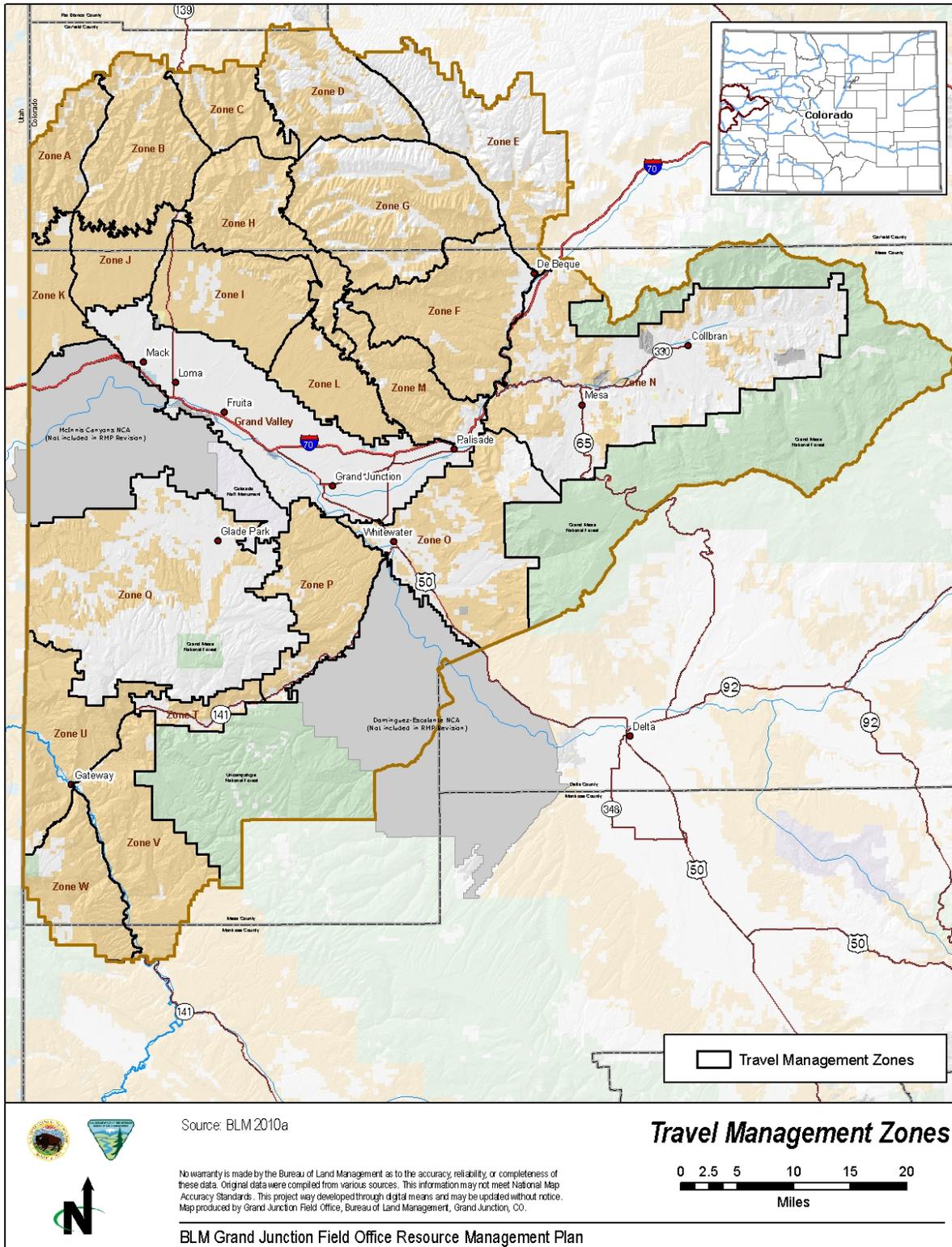
- National Environmental Policy Act (NEPA)
- Endangered Species Act (ESA)
- Wilderness Act
- National Historic Preservation Act
- Antiquities Act of 1906, including Monument Proclamations
- Wild and Scenic Rivers Act
- Clean Air Act
- Clean Water Act
- Taylor Grazing Act

- Mining Act of 1872 (and subsequent mining acts)
- Federal Land Policy and Management Act (FLPMA) BLM
- Code of Federal Regulations (CFR)

Management of OHV use and mountain biking will be consistent with the guidance in BLM's National Strategy for Motorized Off-Highway Vehicle Use on Public Lands (USDI-BLM 2001) and the National Mountain Bicycling Strategic Action Plan (USDI-BLM 2002).

The National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands (Strategy), finalized by the Bureau of Land Management (BLM) in January 2001, was the first step in developing a proactive approach to determine and implement better on-the-ground management solutions designed to conserve soil, wildlife, water quality, native vegetation, air quality, heritage resources, and other resources, while providing for appropriate recreational opportunities. It provides agency guidance and offers recommendations for future actions to improve motorized vehicle management. This priority was re-emphasized by the BLM's M-1626 Travel and Transportation Manual and H-8342 Travel and Transportation Handbook, BLM's Priorities for Recreation and Visitor Services (Purple Book), and Colorado's Recreation and Visitor Services Strategy. The Colorado State Director has given specific policy direction found in Instruction Memorandum No. CO-2007-020, which explicitly directs BLM Colorado to accomplish comprehensive travel planning.

As identified in BLM Colorado's Recreation and Visitor Services Strategy, comprehensive travel planning is integral to maintaining and managing the character of recreation settings. Travel management decisions support the fulfillment of planning objectives (which include desired recreation setting objectives) to protect and/or enhance landscape character. This is facilitated by working closely with communities, sister agencies, interest groups, and interested individuals to balance protecting the health of the land with providing needed and desired levels of public and administrative travel and access.



2 Travel Management Planning Process

2.1 Overview

Travel management issues are considered sequentially at three levels:

- Land Use Planning – GJFO PRMP
- Activity or Implementation Level Plans – GJFO TMP
- Plan Implementation – Project Plans and on-the-ground actions

FLPMA requires that the BLM “develop, maintain, and, when appropriate, revise land use plans” (43 United States Code 1712 (a)). BLM has deemed it necessary to revise the existing RMP for the GJFO based on a number of new issues that have arisen since preparation of the initial RMP in 1987.

Four primary opportunities for changes in BLM planning decisions exist for travel management in the RMP and TMP, as follows:

1. Update travel management area designations to open, limited, and closed; (RMP)
2. Design a system of appropriate and sustainable routes that help achieve land use planning objectives and protect resources; (TMP)
3. Design route systems that provide targeted recreation outcomes. Routes should provide challenge for different skill levels, be multimodal when possible, and have loops; (TMP)
4. Address all resource use aspects (such as recreational, traditional, casual, agricultural, commercial, and educational) and accompanying modes and conditions of travel on the public lands, not just motorized or OHV activities. Acceptable modes of access and travel for the RMP planning area should be identified. (RMP and TMP)

This document addresses the planning criteria, data collection, and alternative development process by which the GJFO Interdisciplinary (ID) Team developed the Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS) alternatives for motorized, mechanized, and non-motorized uses for the Planning Area, including those related to the following management decisions:

- **Land Use Planning Decisions** -- The land use planning decisions of the CTTM Plan define the areas within the GJFO that are designated as “Open,” “Limited,” or “Closed” to OHV use; as well as the number of miles of designated routes under the Limited category.
- **Implementation Decisions** -- Implementation decisions of the CTTM Plan that are included in this document include the designations of routes within areas delineated as Limited to Designated Roads and Trails.

The specific decisions, and designations, as well as the analysis of the environmental impacts associated with the implementation of the CTTM Plan under the 5 alternatives, are presented in Chapter 4 of the PRMP/FEIS.

For Zone L, an area designation will be completed in the future to determine appropriate use after analyzing the distinct natural, cultural, recreational, and social factors of the area.

2.2 Inventory

GJFO initiated the travel management planning process in 2004, beginning with a route inventory that ended in 2010. This inventory provided the foundation and baseline for the TMP.

Inventory procedures were designed to collect information necessary for planning and management of the area. The inventory documented and mapped routes, route conditions, facilities, improvements, and public use areas accessed by the routes (range and wildlife improvements, recreation activity areas, gates, fences, trailheads, and other features). The inventory was conducted by BLM personnel on motorcycles, bicycles and foot. The inventory staff took steps to capture every linear feature that could be seen on the ground in the GJFO. This included features that were engineered (planned), as well as unplanned single-track and two-track linear features that are not part of the BLM's transportation network. In some areas the inventory also captured linear disturbances such as created during uranium exploration or construction of a pipeline, which were never intended to function as roads. Inventory procedures were designed to collect information necessary for planning and management of the area. Open areas, or areas that had an extremely high density of routes, were screen digitized, field verified, and, in the North Desert, sampling was used to determine accuracy of route data and estimate mileage of routes.

The travel management inventory identified roughly 4,000 miles of roads, trails, and other features within the planning area, covering 1.06 million acres. In order to effectively communicate with the public, cooperating agencies, partners, user groups, and resource specialists and to track decisions, the planning area was broken into 19 zones, labeled A to W (see figure on preceding page). Each route was broken into segments (defined by intersections) and given a unique number that correlated with its zone (e.g., A102).

2.3 Scoping and Public Participation

The GJFO TMP is based upon extensive public and cooperating agency participation, including workshops and multiple comment periods.

2.3.1 RMP Scoping

The formal public scoping process for the GJFO RMP/EIS and TMP began on October 15, 2008, with the publication of a Notice of Intent in the Federal Register. Public scoping ended January 9, 2009. Public outreach during this scoping period included: 1) a newsletter mailed to over 600 agency contacts, organizations, and members of the

public; 2) three scoping open houses in December 2008 (Grand Junction and Collbran, Colorado, and Moab, Utah); and 3) a public website, <http://www.blm.gov/co/st/en/fo/gjfo/rmp>, which provides access to materials distributed at scoping meetings as well as information on the public involvement process.

A total of 64 comment letters received during the scoping period addressed travel management. Most of the planning issue comments focused on travel management (23.7 percent), which were consolidated into one issue statement.

“How will motorized, non-motorized, and mechanized travel be managed to provide commodity, amenity, and recreation opportunities, reduce user conflicts, enforce route designations and closures, reduce fragmentation and habitat degradation, and protect natural and cultural resources?”

2.3.2 Travel Management Comment Period 1

GJFO hosted a series of “travel management data collection workshops” in February 2009 to give the public the opportunity to review its route inventory for completeness and accuracy, as well as offer suggestions for possible reroutes or new routes that would complement the existing system. The workshops were held in Delta, De Beque, Collbran, Gateway, Fruita, and Grand Junction, with over 200 participants. A total of 118 written comments were received during this comment period.

2.3.3 Travel Management Comment Period 2

GJFO identified the need and interest from public comments additionally in 2009 not only on the completeness and accuracy of the inventory but also to help evaluate the quantity and quality of the experiences and desired recreation setting available in the planning area. The GJFO received 178 written comments during this comment period. Viewpoints expressed in the comments reflected a wide spectrum of desires regarding desired levels of access.

2.3.4 Coordination with Partners, Cooperating Agencies, and Resource Advisory Council (Sub-group)

During the data collection and inventory phase of the planning process, BLM staff met with offices of the US Forest Service and BLM with contiguous acreage, with county and municipalities within the planning area, and Colorado Department of Wildlife and US Fish and Wildlife Service to verify the inventory data and collect additional information on resource concerns and access needs.

Throughout the process, GJFO staff made presentations at local user group meetings and to the Cooperating Agencies and Resource Advisory Council (Sub-group) on the defining law, policy, goals, and objectives associated with travel management and the process to be used in designating the travel management network.

During the route by route selection by alternative, the cooperating agencies were invited to participate in providing information to the resource specialists to aid in the

alternative development. A complete list of attendees by date and area discussed is included as TMP Attachment 4.

2.3.5 Response to Travel Management Comments

Throughout the planning process, BLM has received thousands of comments which have been recorded and incorporated into the planning criteria that informed decisions for each alternative including the preferred. During the draft comment phase, GJFO received roughly 1,500 comments that were route specific. Each comment is captured in a travel related comment report that provides rationale for decision making and compares the request of the commenter with the final decision. The BLM considered each comment received in the framework of its association with the GJFO route segment(s) or area(s) it addressed.

2.3.6 Area Designations

2.3.6.1 *Open*

Open areas are areas where cross-country motorized and mechanized travel is allowed. They are limited to a size that can be effectively managed and geographically identifiable to offer a quality, safe, and varied experience for participants. Open areas provide a different type of recreational experience as compared to trail riding, by giving the rider an opportunity to choose terrain that will challenge his or her skills and equipment. Open areas will be fenced or boundaries clearly signed, closed to shooting, and have parking and information portals. The size and number of open area(s) vary across the different alternatives.

Alternative A

Alternative A includes three open OHV areas, totaling 12,500 acres of intensive travel.

The Grand Valley OHV Area (11,400 acres) is located just north of the Grand Junction Airport and consists of 17 square miles of desert like terrain. The barren hills of Mancos Shale offer challenging rides for all types of vehicles and all skill levels of riders.

The North Fruita Desert (350 acres) open area is located within the North Fruita Desert SRMA and is adjacent to approximately 250 miles of designated routes and trails. The area is mostly fenced and well-signed.

Whitewater Hill Open Area (400 acres) is located just outside of Whitewater and consists of a small, informal parking area with mostly Mancos Shale terrain. This is not a popular riding area. The majority of this type of use is within the part of the planning area around 34 and C Road.

Alternative B (Proposed RMP)

Alternative B includes three open areas, totaling 10,200 acres.

This alternative includes slight modifications to the Grand Valley OHV area (9,700 acres) that defines use between 27 ¼ Road and 29 Road.

In this alternative, the Whitewater Hill Open Area is changed to designated routes. A new area named Horse Mountain RMZ 2 Open Area around 34 and C Road (180 acres) is added to resolve resource conflicts with shooting and other recreational activities, including OHV use.

The 18 road (North Fruita Desert) Open area is reduced by 20 acres (330 acres) to allow for adjacent utility ROWs.

Alternative C

This alternative focuses specifically on conservation of natural resource values. Open areas are not being analyzed in this alternative, with no acres open to cross-country travel. All previous open areas are limited to designated routes.

Alternative D

Alternative D has the same amount of open area acreage as Alternative B, with 10,200 acres being analyzed; however, the dimensions of the open areas vary from Alternative B.

Skinny Ridge and other popular riding areas are included with a size that allows for diverse and challenging terrain. This area is set back from the airport, homes, and the highway to address the visual, noise, and safety concerns. A couple of portals have been identified for development of parking, signage, and restrooms.

North Fruita Desert (170 acres) is being analyzed.

The 34 and C Road open area (330 acres) is being analyzed, with easy access and better terrain than the Whitewater Hill Open Area.

2.3.6.2 Limited

“Limited to designated routes” is the primary allocation for motorized and mechanized use in the planning area. All areas outside of the open and closed polygons by alternative are limited. Limitations include modes of travel, seasons of use, and types of user.

Generally, horse and foot travel is not limited to designated routes. Certain areas with high use, sensitive resources, or potential negative interactions with other users require that foot and horse travel is limited to designated routes or, in some alternatives, excluded all together.

Alternative A

Alternative A has 220,000 acres limited to designated routes. This acreage does not include seasonal limitations. This alternative has the lowest number of acres as limited to designated routes. The Badger Wash ACEC and part of The Palisade ACEC are limited to designated routes.

Alternative B (Proposed RMP)

Alternative B has 845,000 limited to designated routes, not including seasonal limitations. This alternative has the second largest area as limited to designated routes for motorized and mechanized travel. The Dolores River Riparian ACEC, Indian Creek ACEC (with seasonal closures), part of The Palisade ACEC, Roan and

Carr Creek ACEC, Sinbad Valley ACEC, and South Shale Ridge ACEC are all limited to designated routes.

Alternative C

Alternative C has 631,800 acres limited to designated routes, not including seasonal limitations. This alternative has the second lowest acres of limited to designated routes. The Colorado River Riparian ACEC, Coon Creek ACEC, Dolores River Riparian ACEC, Glade Park-Pinyon Mesa ACEC, Gunnison River Riparian ACEC, Hawxhurst Creek ACEC, Indian Creek ACEC (with seasonal closures), John Brown Canyon ACEC, part of The Palisade ACEC, Plateau Creek ACEC, Prairie Canyon ACEC, Reeder Mesa ACEC, Roan and Carr Creek ACEC, Rough Canyon ACEC, and South Shale Ridge ACEC are all limited to designated routes.

Alternative D

Alternative D has 885,200 acres limited to designated routes, not including seasonal limitations. This alternative has the largest area as limited to designated routes for motorized and mechanized travel. The Badger Wash ACEC, part of The Palisade ACEC, and Rough Canyon ACEC are all limited to designated routes.

2.3.6.3 Seasonal Limitations:

Five seasonal limitations for motorized and mechanized travel are proposed within certain areas limited to designated routes.

Wildlife limitation dates were recommended by Colorado Parks and Wildlife and are being incorporated into travel management planning throughout BLM Colorado, where appropriate. These limitations that include Winter Limitation (Big Game), Spring Limitation 1 (Sage Grouse), and Spring Limitation 3 (Elk Calving) were established to avoid critical periods for sensitive species. Open Rifle Hunting Season Limitation would be provided through easement agreements coordinated by CPW. Spring Limitation 2 for soils would take place during spring months when saturated soil conditions are most predictable (typically associated with spring melt-out) and targets soil mapping units particularly vulnerable to erosion. Spring melt-out typically occurs from the beginning of March through the middle of May in the GJFO planning area.

Alternative A

Seasonal limitations exist on 106,200 acres under this alternative. The following areas have seasonal limitations from December 1 to May 1:

- Beehive;
- Blue Mesa;
- Chalk Mountain;
- Coal Canyon;
- Garvey Canyon;
- Grand Mesa Slopes;
- Indian Point; and

- Post/Lapham Canyon

Alternative B (Proposed RMP)

Seasonal limitations exist on 75,600 acres under this alternative. The following areas have seasonal limitations from December 1 to May 1:

- Big game winter range;
- Little Book Cliffs Wild Horse Range;
- Beehive;
- Blue Mesa;
- Chalk Mountain;
- Coal Canyon;
- Demaree Canyon outside of the WSA;
- Garvey Canyon;
- Grand Mesa Slopes;
- Howard Canyon Flats;
- Indian Point;
- Post/Lapham Canyon;
- SRMAs:
 - Palisade Rims;
 - A portion of the North Fruita Desert;
- ERMAs:
 - Barrel Springs

Seasonal limitation periods may be reduced based on coordination with CPW.

Alternative C

Seasonal limitations exist on 50,100 acres under this alternative. The following areas have seasonal limitations from December 1 to May 1:

- Beehive;
- Blue Mesa;
- Chalk Mountain;
- Coal Canyon;
- Demaree Canyon outside of the WSA;
- Grand Mesa Slopes;
- Howard Canyon Flats;
- Indian Point;
- Post/Lapham Canyon

Alternative D:

Seasonal limitations exist on 54,700 acres under this alternative. The following areas have seasonal limitations from December 1 to May 1:

- Beehive;
- Chalk Mountain;

- Coal Canyon;
- Garvey Canyon;
- Grand Mesa Slopes;
- Indian Point;
- Post/Lapham Canyon;

2.3.6.4 Closed

This designation closes an area to any and all travel, non-motorized and non-mechanized included. Areas are designated closed if closure to all types of transportation is necessary to protect resources, promote visitor safety, or reduce use negative interactions. These areas vary by alternative and include WSAs, ACECs, LWWCs, WSR segments, Critical Habitat and Research Areas, Wildlife Core Areas, and Municipal Watersheds.

Alternative A

Part of The Palisade ACEC, Pyramid Rock ACEC (OHV closure), and UnawEEP Seep ACEC, are all closed to motorized travel under Alternative A.

Alternative B (Proposed RMP) and C

The Atwell Gulch ACEC , the Juanita Arch ACEC, part of the Mt. Garfield ACEC, part of the Palisade ACEC, the Pyramid Rock ACEC (closed to all modes), and the UnawEEP Seep ACEC are all closed to mechanized and motorized use under Alternatives B and C.

Alternative D

The Pyramid Rock ACEC would be closed to all modes of travel except foot travel. Part of the Palisade ACEC, the UnawEEP Seep ACEC, are all closed motorized and mechanized use under this alternative.

2.3.6.5 Other considerations

Backcountry Airstrips

There are a number of locations throughout the GJFO that are commonly known and consistently used for aircraft landing and departure activities that, through such casual use, have evolved into backcountry airstrips (the definition contained in Section 345 of Public Law 106-914, the Interior and Related Agencies Appropriation Act of 2001). In accordance with that law, require full public notice, consultation with local and state government officials, the Federal Aviation Administration (FAA), and compliance with all applicable laws, including NEPA, when considering any closure of an aircraft landing strip.

In addition to compliance with applicable aviation regulations, backcountry airstrips will be designated and managed the same as travel routes for other forms of transportation. As such, management of backcountry airstrips would conform to all decisions, including those regarding route construction and maintenance, outlined in this travel management plan.

Dispersed Camping

Dispersed camping would be allowed in the planning area. Existing spur routes that lead to campsites would be designated and identified. No cross-country travel associated with dispersed camping is allowed outside the open areas, and dispersed camping was largely addressed in most zones. During the implementation of approved designations, some additional spur routes to potential campsites may be designated as open to accommodate use consistent with resource concerns and desired future outcomes of the recreation program.

3 Implementation Level Decisions – Route Designation

Implementation level decisions include the process of assigning route designations to each route within the limited polygons, in accordance with alternative themes, while balancing access and resource concerns. Route designation is an implementation level decision governed by the higher level RMP. Implementation decisions are subject to appeal. The range of alternatives developed in the route designation process for this TMP mirror the goals and objectives of each of the alternatives developed in the RMP revision. Future adjustments to the designated route network would be accomplished through plan maintenance (minor adjustments) or additional NEPA review and decision-making.

3.1.1 Process for Route Designation

DEIS Development

GJFO Interdisciplinary Team and cooperating agency representatives convened to consider each route and evaluate the access needs, public comments, and resource concerns of each. The planning team used a structured, consistent approach to consider the significant amount of data that went into the analysis process. In addition to cooperating agency representatives, the team included representatives of the interdisciplinary team and specialists representing every major program that the BLM administers (e.g., range management, archaeology, and wildlife). These specialists are knowledgeable about local data and the laws or regulation that influence each program.

Individual specialists had access to their own datasets so they could see the results of past surveys and inventories that had been done. Together, the team projected the map of the current route system and the route being considered and used Google Earth to maintain common assumptions and knowledge about terrain and human-made features present on the landscape. Each specialist represented their particular resource. Together, the team gave specific attention and value to maintaining access to public lands, providing for quality recreation, while also protecting sensitive resources that are affected by roads and trails, working together to balance those considerations toward a travel plan that reflected RMP guidance.

FEIS Development

In developing the proposed plan for the FEIS, GJFO Interdisciplinary Team and cooperating agencies convened for seven additional weeks to consider each route in the Proposed Alternative again in light of public comment. This resulted in measurable changes from the original Alternative B (Preferred Alternative) that appeared in the draft RMP.

In the development of the proposed BLM looked at routes that for various reasons would require some form of mitigation (bridge, reroute, public access, etc.) to allow for long term public or administrative access. These situations included issues like safety concerns from an operating well pad, no legal public access, impassable wash out or resource that needs to be avoided to name a few. In these instances, BLM is proposing mitigation measures to remedy the situation and allow for continued access. Route reports will have specific information on the issue, mitigation measure needed and any special instructions. Roughly 13% of routes have mitigation requirements that result in a change to the route designation. These routes are included below in Table 2 under the column header “Alt B. – Proposed Following Mitigation”.

3.1.2 Exceptions to Standard Route Designation Process

3.1.2.1 Recreation Management Areas with Existing Travel Plans

Within the planning area, Bangs Canyon SRMA and North Fruita Desert SRMA currently exist, and site-specific travel plans already exist for these areas. These travel decisions were not re-evaluated in this effort (Bangs Canyon SRMA and North Fruita Desert SRMA) unless:

1. new resource information was available;
2. public comment was received regarding the route; or
3. recreation staff thought it made a valuable contribution to the network.

3.1.2.2 Zone L – North Desert Area

Zone L (North Desert) proved to be one of the most challenging zones to consider, both for the BLM and for the public, due to its route density. Through public comment and further interdisciplinary consideration, the BLM determined that a different process was needed to make effective planning decisions for this zone.

Following completion of the rest of the TMP, the BLM will undertake a specific planning process for this area and will allow the use of existing routes within the boundary of this zone until individual routes are designated within this area. See Attachment G for additional guidance developed for route designations in Zone L.

3.1.3 Route Designation Evaluation Criteria

For the evaluation of each route, a route purpose was identified to include an overview of the routes' access and current known uses. BLM staff utilized public comments, cooperators input and program data to assign the following attributes to each route, as known:

- Route Overview and Access
 - Right of Way
 - Legally recognized by another agency (county, state or federal)
 - Access to non-federal lands
 - A number of routes within the GJFO planning area provide access to private land or other, non-federal ownership (e.g., cities or towns). Some of these routes serve only the landowner and may function as an administrative route (e.g., may require a right-of-way [ROW] for the exclusive use of the route by the private landowner).
 - Provides access between county, state or federal routes or lands
 - Where routes cross both BLM managed lands and parcels owned by other entities (e.g., USFS), continuity of route designation across the entire route was prioritized.
- Program Access Needs
 - Forestry
 - Maintain motorized access to appropriate areas for firewood and post and pole gathering, and motorized or non-motorized access for Christmas tree cutting.
 - Livestock Grazing (Range)
 - Maintain a minimum of administrative access to livestock facilities and to areas necessary to properly administer grazing permits
 - Recreation and Visitor Services
 - Maintain access to provide for quality recreation, especially in areas where recreation has been identified as important or intensive (e.g., SRMAs and ERMAs).
 - Provide access to recreation developments, overlooks, hunting areas, dispersed and undeveloped campsites and trail networks. Carefully consider routes important for recreation as identified by Mesa and Garfield counties.
 - Retain or provide access to difficult to reach parcels of public land for hunting, fishing, and other recreation activities.
 - Consider route features, quality user experience, and route connectivity to determine appropriate route use type (e.g., open, mechanized, ATV, UTV, and foot)
 - Lands and Realty
 - Maintain a minimum of administrative access to rights-of-way, other land use authorizations, and utility corridors.

- To facilitate proper reclamation in compliance with pipeline stipulations on rights of way grants and to protect shallow pipeline infrastructure, maintain administrative (but close public) access over pipeline facilities, unless pipelines are placed along existing routes or impacts pipelines and reclamation are not a concern.
- Consider whether parcels are identified for disposal in determining long-term access needs.
- Consider whether parcels are identified for management by another entity in determining long-term access needs.
- Reduce trespass from routes that dead-end onto private property by closing routes, managing as administrative, or by signing property boundaries.
- Allow for landowner access on closed routes through administrative designation and right-of-way grants
- Energy and/or Mineral Development
 - Maintain a minimum of administrative access to active mines, inactive mines, inactive mines that have been reclaimed (e.g., bat gates), gas pipelines, and documented Colorado Oil and Gas Conservation Commission (COGCC) wells.
- Other programs and considerations
 - Access to research sites
 - Wildland fire suppression access needs
 - Landing Strips
- Routes of Special Importance to Counties
 - Mesa and Garfield Counties both served as cooperating agencies on the planning team, and both counties identified factors and/or individual routes that were important for serving various needs important to local government or to their constituents. These needs included business access (e.g., agriculture, mining, and oil and gas) but also included general access and recreation as well. This understanding emerged as an important factor as the planning process continued, with the counties providing input (or, in the case of Mesa County, specific maps) maps of routes important for access and recreation as well as business needs, and the BLM planning team worked closely with Mesa County to review and understand these comments and incorporate them wherever possible given other laws that guide management of the public lands.

In addition to the Designation Criteria established by 43 CFR Subpart 8342 that directs BLM to minimize resource damage through OHV area and route designations, GJFO incorporated additional planning criteria from the RMP to guide management decisions for all modes of travel including mechanized and non-motorized.

TABLE 1. CRITERIA

Designation Criteria	Resources Considered	Evaluation Criteria Used
<p>a) Areas and trails shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability).</p>	<p>Cultural (high potential from class I modeling, historic trail, eligible or potentially eligible sites, Tribal significance, sites on national register of historic places)</p>	<p>To minimize ongoing or potential impacts to cultural sites that are eligible or potentially eligible for listing on the National Register of Historic Places (NRHP), close and/or re-route routes that are inside or pass through eligible or potentially eligible cultural sites (e.g., archaeology-historic and prehistoric), or identify mitigation necessary to protect sites.</p> <p>To minimize the potential for vandalism or surface collection, reduce number of routes in proximity to known cultural sites, minimize impacts to site integrity of setting and feeling.</p> <p>To minimize potential impacts to sites in areas where a high density of cultural resources is expected, reduce the density of routes in these areas.</p> <p>To minimize impacts to cultural sites or areas identified as important to Native American Tribes, reduce the density of routes in areas identified as important.</p> <p>To minimize ongoing or potential impacts to cultural sites listed on the NRHP, close routes that are inside or pass through NRHP-listed cultural sites, or identify mitigation necessary to protect sites.</p> <p>To minimize ongoing or potential impacts to historic trails identified as eligible or potentially eligible for listing on the NRHP, identify mitigation to protect the historic integrity of routes, if necessary.</p> <p>To minimize visual and audible impacts to eligible or potentially eligible cultural resources, reduce number of routes, close and/or re-route routes visible from a site, or identify mitigation necessary</p>

Designation Criteria	Resources Considered	Evaluation Criteria Used
		<p>to protect sites.</p> <p>To minimize the potential for vandalism or surface collection; to minimize ongoing or potential impacts to cultural sites that are eligible or potentially eligible for listing on the NRHP, close routes that access eligible or potentially eligible cultural sites not open to the public, or identify mitigation necessary to protect sites.</p>
	<p>Paleontology (paleontological sites)</p>	<p>To reduce ongoing damage to known paleontological sites, close routes that are inside or pass through eligible paleontological sites, or identify mitigation necessary to protect sites.</p> <p>To reduce the potential for vandalism or collection, reduce number of routes in proximity to known paleontological localities.</p>
	<p>Lands Managed for Wilderness Characteristics</p>	<p>Where wilderness characteristics are managed for protection: Minimize surface disturbing activities such that the natural quality of the area is maintained; Maintain opportunities for solitude and primitive recreation where they occur in the areas. / LWC-A3: Reduce route density in areas where long-term management is designed to protect wilderness characteristics.</p>
	<p>Soils (fragile soils, Mancos shale, saline soils, slumping soils, severe erosion hazard and public land health standard 1)</p>	<p>While maintaining access, close routes with multiple stream crossings and/ or identify mitigation including reroutes and proper design, construction, and maintenance plans in accordance with BLM manual handbook guidance.</p> <p>Reduce point and non-point source contributions of water quality contaminants from public lands by reducing disturbance footprints associated with travel infrastructure and other surface disturbing actions while also maintaining access and meeting resource use</p>

Designation Criteria	Resources Considered	Evaluation Criteria Used
		<p>objectives.</p> <p>Promote the delisting of impaired water bodies (303d listed) by monitoring actions including but not limited to grazing, travel management, and other surface disturbing actions and implementing appropriate management change.</p> <p>In high disturbance areas, utilize best available science to model sediment loss relative to natural rates. Based on model results, modify land uses including travel infrastructure to minimize resource damage while maintaining resource and resource use sustainability on public lands.</p> <p>While maintaining access, eliminate duplicative or redundant routes in areas of fragile soils, Mancos Shale areas, slump areas, and on slopes exceeding 40 percent. (Public Land Health Standard 1).</p>
	Wilderness Study Areas	<p>To reduce impairment of wilderness characteristics, generally close routes in WSAs. Routes may be left open in WSAs if they were documented at the time of the original wilderness inventory, and adequate documentation exists to indicate that they continue to be used in the same manner and degree as they were at the time of the inventory so as to not impair wilderness characteristics.</p>
	Areas of Critical Environmental Concern	<p>Decisions in Areas of Critical Environmental Concern depended on the relevant and important values the ACEC would be designated to protect.</p> <p>Where there is an ecological value to be protected, limit or reduce the number of routes within ACECs that are managed as limited to designated routes for motorized and mechanized travel.</p>

Designation Criteria	Resources Considered	Evaluation Criteria Used
	<p>Vegetation (Threatened, endangered, and/or sensitive vegetation species; rare plants; plant communities with S1/2 and G1/2 ratings; land health standards 2-4; riparian; weeds present/cheatgrass invasion; designated critical habitat; and federally listed species)</p>	<p>Sensitive vegetation areas, such as those where rare, relic, or federally listed (threatened, endangered, or sensitive species) exist (or designated critical habitat), or plant communities exist with S1/2 and G1/2 ratings, were avoided (or mitigated) where possible in the designation process. Proximity to riparian areas, particularly areas rated as functioning at risk or non-functioning where roads or trails may contribute to that rating, was considered in designation. Areas where overall area land health was not meeting vegetation-related standards 2, 3, and 4 were also considered in the planning process. Additionally, the presence of weeds, or plant communities susceptible to cheatgrass invasion, was especially incorporated in planning processes.</p> <p>Reduce redundancies in routes to minimize fragmentation, and minimize direct impacts from motorized and mechanized users of roads, routes and trails on relic vegetation communities and sensitive plant species.</p> <p>Identify mitigation where open routes are negatively effecting significant plant communities, relic vegetation, and ensure that Land Health Standard 4 is being achieved or progress is being made towards meeting this Standard.</p> <p>To reduce the spread of cheatgrass and noxious weeds, reduce duplicative and redundant routes in areas with susceptibility to cheatgrass or invasive and noxious weed infestations.</p> <p>Reduce duplicative and redundant routes in riparian areas, especially those identified as not functioning or functioning at risk. Identify mitigation where open routes are contributing to problems</p>

Designation Criteria	Resources Considered	Evaluation Criteria Used
		<p>with riparian function.</p> <p>Reduce redundancies in routes to minimize habitat fragmentation, and minimize direct impacts from motorized and mechanized users of roads, routes and trails on listed species and in designated critical habitat for threatened and endangered plants. Identify mitigation where open routes are negatively affecting listed species and/or designated critical habitat, and ensure that Land Health Standard 4 is being achieved or progress is being made towards meeting this Standard.</p>
	<p>Water (perennial stream/fishery, stream crossing, municipal watersheds, land health standards, riparian community present)</p>	<p>Route crossings of streams, particularly perennial streams and identified fisheries were considered in the designation of routes and mitigation measures, primarily where crossings occurred in municipal watersheds, source-water protection areas, in or parallel to channels, where riparian communities are present, or in areas that do not meet CO Public Land Health Standards, particularly standard 5 or CDPHE Regulation No. 93, Section 303(d).</p>
	<p>Wild Horses (Little Book Cliffs Wild Horse Area)</p>	<p>Emphasize protection of wild horses in the LBCWHR and minimize impacts to their population and habitat. / WH-A2: While maintaining access for administration and public viewing, reduce the number of duplicative and redundant routes in the Little Book Cliffs Wild Horse herd area.</p>
	<p>Visual Resource Management (Class 1-IV)</p>	<p>To preserve the visual character of the existing landscape, limit or reduce the number of routes in areas managed as VRM Class I. The level of change to the visual landscape should be very low and must not attract attention.</p>

Designation Criteria	Resources Considered	Evaluation Criteria Used
		<p>To retain the visual character of the existing landscape and minimize the level of change, limit or reduce the number of routes in areas managed as VRM Class II. The level of change to the visual landscape should be low. Changes should repeat the basic elements found in the natural features of the landscape – form, line, color and texture. Routes may be seen but should not attract the attention of the casual observer.</p> <p>To partially retain the visual character of the existing landscape and to moderate the level of change to the existing environment, carefully consider the designation of routes or design/construction of new routes in areas managed as VRM Class III. Routes may attract attention, but should not dominate the view of the casual observer. To the extent possible, routes should repeat the basic elements found in the natural landscape – form, line, color and texture.</p> <p>In areas managed under VRM Class IV objectives, allow transportation/access routes that require major modification of the visual landscape. The level of change can be high and routes may dominate the view of the casual observer. To the extent possible, routes should repeat the basic elements found in the natural landscape – form, line, color and texture.</p>
	Wild and Scenic River (Suitable segments)	Implement interim protective management of each suitable segment by protecting its tentative classification, free-flowing condition, water quality, and ORV(s), pending Congressional action or for the duration of the RMP.
(b) Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife	Wildlife (range, movement corridors for bighorn sheep,	Reduce routes through currently suitable or potentially suitable Gunnison and greater sage grouse habitat by reducing routes through sage brush parks, with an emphasis on routes that bisect

Designation Criteria	Resources Considered	Evaluation Criteria Used
habitats. Special attention will be given to protect endangered or threatened species and their habitats.	mule deer, elk, pronghorn antelope; roosting and/or nest sites for bats, bald eagles and golden eagles; habitat and lek sites for Greater and Gunnison Sage-Grouse; special status species and wildlife emphasis areas)	<p>sage brush parks.</p> <p>Maintain and/or create connections between key sagebrush habitats by encouraging placement of new utility developments (power lines, pipelines, etc.) and transportation routes (roads, trails etc.) in existing utility or transportation corridors to minimize fragmentation of sagebrush vegetation.</p> <p>To reduce disturbance to Gunnison or greater Sage-Grouse, close duplicative or redundant routes within Sage-Grouse habitat and within 4 miles of a lek.</p> <p>Reduce habitat fragmentation by reducing road density (focusing primarily on duplicative or redundant routes) in production areas, (bighorn sheep, mule deer, elk, pronghorn antelope, and moose) To provide protection of big game production areas from disturbance and displacement by human activities during critical periods.</p> <p>Prohibit activities, including motorized travel, in elk production areas from May 15 to June 15; in antelope production areas from April 15 to June 30; in Rocky Mountain bighorn sheep production areas from April 15 to June 30; in Moose production areas from April 15 to June 30; and in desert bighorn sheep production areas from February 1 to May 1.</p> <p>Certain areas and/or routes within big game winter range may be closed to foot, horse, motorized, and/or mechanized travel from December 1 to May 1. Areas or routes to be closed to travel will be determined by local knowledge of intensity of wildlife use and potential human wildlife conflicts</p> <p>To preserve the integrity of long term research study sites close</p>

Designation Criteria	Resources Considered	Evaluation Criteria Used
		<p>areas consistent with current management.</p> <p>Prohibit surface occupancy and surface-disturbing activities in approved research sites including, but not limited to, the Ant Research Area (120 acres) located near 16 Road, and the Owl Banding Station located south of De Beque.</p> <p>Reduce habitat fragmentation by reducing road density (focusing primarily on duplicative or redundant routes) in wildlife emphasis areas. Route density of less than 0.5 km of road per square km preferred, where this cannot be achieved implement winter seasonal limitations if feasible to seasonally limit route related disturbance in the most critical months.</p> <p>Within wildlife emphasis areas consolidate surface occupancy and surface-disturbing activities within existing disturbance to avoid fragmentation.</p> <p>Focus management in wildlife emphasis areas on wildlife. Adopt additional management actions deemed necessary by the BLM (such as closing additional roads to maintain effective habitat patch size).</p> <p>While maintaining desired levels of access, identify and reroute or close and rehabilitate redundant, duplicative, or poorly constructed routes to reduce point sources of erosion and resulting sedimentation and turbidity impacts within watersheds containing known Colorado River and Greenback cutthroat trout populations. Focus on routes within closest proximity to occupied streams.</p> <p>Reduce disturbance at known golden eagle nesting sites by closing routes permanently or seasonally where possible, with an emphasis</p>

Designation Criteria	Resources Considered	Evaluation Criteria Used
		<p>on routes that would result in disturbance above the nest (at the top of a cliff nest). Disturbance above a nest has been shown to cause greater likelihood of nest abandonment</p> <p>To reduce potential for vandalism of bat gates and associated disturbance to bats minimize motorized access to gated sites.</p>
<p>(c) Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.</p>	<p>Recreation and Visitor Services</p>	<p>Consider route features, quality user experience, and route connectivity to determine route use type (e.g., open, mechanized, ATV, UTV, and foot).</p>

3.1.4 Route Designations

The following designations were utilized in the route designation process:

- Open to all uses
- Seasonal Limitation
 - Winter Closure: December 1 – May 1
 - Spring Sage-grouse Closure: March 1 – June 30
 - Rifle Hunting Season Open: October 1 – November 30
 - Elk Calving Spring Closure: May 15 – June 15 and
 - Spring Soil Closure: March 1 – May 15
- Limited to under 50" only ;
- Limited to under 50" only with winter seasonal limitation
- Limited to Foot, Horse, Bicycle and Motorcycle Only ;
- Limited to Foot, Horse, Bicycle and Motorcycle Only with winter seasonal limitation
- Limited to Foot, Horse and Bicycle Only ;
- Limited to Foot, Horse and Bicycle Only with winter seasonal limitation
- Limited to Horse ;
- Limited to Foot and Bicycle Only ;
- Limited to Bicycle Only ;
- Limited to Foot Only ;
- Closed; and
- *Limited to Administrative and Permitted Uses Only

*Administrative routes are those that are limited to authorized users (typically motorized access). These are existing routes that lead to developments that have an administrative purpose, where the BLM or a permitted user must have access for regular maintenance or operation. These authorized developments could include such items as power lines, cabins, weather stations, communication sites, spring developments, corrals, or water troughs.- (H-8342 Travel and Transportation Handbook)

Administrative routes are primarily closed to motorized and mechanized access. Generally they are still open to foot, horse and unless specifically closed by a rule.

3.1.5 Right-of-Way (ROW) and Needed Easements

Public lands authorized to be used or occupied for specific purposes pursuant to a right-of-way grant, which are in the public interest and which require ROWs over, on, under, or through such lands. Examples are roads, power-lines, pipelines, etc.

Acquisition of road or trail easements, or issuance of a right-of-way on an existing or historic physical access, would be pursued in areas where those actions would contribute to the protection and management of natural resources, such as access to range improvements/animal husbandry, and/or the enhancement of recreation

opportunities. These methods of acquiring public access would only be available from willing landowners.

The geographic primary areas identified for such acquisitions are:

- De Beque area (southwest of the Town of De Beque)
- Roan Creek area (northwest of the Town of De Beque)
- ERMA and SRMAs to achieve recreation objectives
 - Bangs SRMA Clarks Bench and Tabeguache at Needem-Moore Seldom Feed Park
- Grand Mesa to Palisade Rim
- Palisade Rim to Horse Mountain
- Cheney Reservoir
- West side of North Desert ERMA to Rabbit Valley and Utah Rims SRMA

Table 2. Route Designations in Miles by Alternative

Designation	Alt. A	Alt. B - Proposed	Alt. B - Proposed % of total	Alt. B – Proposed following mitigation	Alt. B – Proposed following mitigation % of total	Alt. C	Alt. D
Limited to under 50" only	13.1	37.2	0.9%	52.3	1.3%	50.9	84.3
Limited to under 50" only with winter seasonal limitation	0.0	7.3	0.2%	7.3	0.2%	66.1	39.5
Limited to Bicycle Only	1.0	1.3	0.0%	1.3	0.0%	1.3	1.3
County Maintained (county)	304.2	307.8	7.7%	307.8	7.7%	304.2	304.2
Limited to Foot and Bicycle Only	5.3	5.6	0.1%	8.0	0.2%	5.6	14.0
Limited to Foot Only	5.5	7.1	0.2%	7.1	0.2%	10.4	7.5
Limited to Foot and Horse Only	4.7	46.6	1.2%	50.7	1.3%	50.6	48.3
Limited to Foot, Horse, Bicycle and Motorcycle Only	50.6	88.4	2.2%	85.6	2.1%	46.3	136.6
Limited to Foot, Horse, Bicycle and Motorcycle with seasonal limitation	0.0	3.2	0.1%	3.2	0.1%	0.0	0.0
Limited to Foot, Horse and Bicycle Only	55.3	103.5	2.6%	114.7	2.9%	73.9	83.5
Limited to Foot, Horse and Bicycle Only with winter seasonal limitation	0.0	13.6	0.3%	13.6	0.3%	0.0	0.0
Open to all uses	164.3	862.3	21.6%	1,013.0	25.3%	682.5	1,825.4
Open with a seasonal limitation	3.2	233.7	5.8%	223.1	5.6%	85.5	182.9
Undesignated*	2,935.9	545.2	13.6%	545.2	13.6%	0.0	0.0
Open (in open areas)	305.1	290.2	7.3%	290.2	7.3%	0.0	258.2
Limited to Administrative and Permitted Uses Only	111.7	256.1	6.4%	378.7	9.5%	1,033.9	669.4
No Legal Access		334.7	8.4%	0.0	0.0%		
Closed	36.7	852.8	21.3%	894.8	22.4%	1,585.4	341.5
Total Open to Non-motorized Only	71.8	177.8	4.4%	195.4	4.9%	141.8	154.5
Total Open to Motorized	3,776.4	2,375.3	59.4%	2,527.7	63.2%	1,235.5	2,831.1
Total	3,996.6	3,996.6	100.0%	3,996.6	100.0%	3,996.6	3,996.6

*Because Alternative A represents the No Action alternative where only a limited number of routes have been designated, the miles in each category are representative of only the limited number of miles designated.

4 Implementation Strategy

Following approval of the proposed plan, a notice will be published in the Federal Register, in accordance with 43 CFR §8365, to establish new use restrictions needed to implement and enforce the plan.

4.1 Prioritization of Work

4.1.1 Prioritized Factors

Specific prioritization of work will be guided by the following priority factors. The highest priority would be given to areas for which all factors apply.

TABLE 3. PRIORITY FACTORS

Factor	Resource	Area
Regulatory resource concerns	Cultural	Castle Rocks Blue Creek
	T & E Plants and Wildlife	Whitewater Castle Rocks Pyramid Rocks South Shale Ridge Listed Fish including Critical habitat <ol style="list-style-type: none"> 1. Gunnison River 2. Colorado River 3. Greenback cutthroat trout habitat (if still listed) Gunnison Sage-Grouse <ol style="list-style-type: none"> 1. Critical Habitat
	Water quality and wetlands	Stream segments identified in regulation 93 Total Maximum Daily Load (TMDL) stream segments Conform with the salinity control act
	Wild Horse Area	Little Book Cliffs
RMP Areas of Priority Resource Concerns	ACECs	Pyramid Rock ACEC Indian Creek ACEC

Factor	Resource	Area
	High recreation value and high resource concern	Bangs SRMA North Desert ERMA - 21 Road (Hunter Canyon) Barrel Springs ERMA Horse Mountain ERMA
	BLM Special Status Species	Perennial Streams (cutthroat trout) North Fruita Desert (prairie dogs, antelope, burrowing owls, great basin spade foot, buckwheat) Greater Sage Grouse Occupied Habitat 1. Roan Creek Drainage (watershed) 2. Sunnyside Area
	Lands Management for Wilderness Characteristics	Bangs Canyon Maverick Unawep
	Wildlife Emphasis Areas	Prioritize work in these areas based upon monitoring of recreational use. Prioritize work in areas with high use over areas with low use.
	Wild and Scenic Rivers	Dolores River
	Perennial streams, Riparian corridors and/or fish bearing streams	Barrel Springs Blue Creek North Mesa Creek Granite Creek Roan Creek and tributaries East Creek

Factor	Resource	Area
		West Creek Dolores River Colorado River Gunnison River Kannah Creek North Fork Kannah Creek Little Dolores Cottonwood Creek and Rapid Creek
	Soils (Slump areas, fragile soils, saline soils)	Barrel Springs North Desert North Fruita Desert Plateau Valley Area Roan Creek
Socioeconomic areas of importance	Special Recreation Management Areas (SRMAs)	Bangs North Fruita Desert Grand Valley OHV De Beque Area (unspecified) Palisade Rim
	Extensive Recreation Management Areas (ERMAs)	North Desert Gateway Barrel Springs Horse Mountain

4.1.2 Prioritized Actions

1. Pursue funding for outreach literature, signage and staff necessary to implement the route/facility signing effort (i.e., law enforcement, non-law enforcement type park rangers, and maintenance staff).
2. Pursue funding and contractual obligations for highest priority survey work.
3. Pursue funding for route and site rehabilitation.
4. Sign the “open” route network and limit signing the “closed” route network (in priority order).
5. Rehabilitation
 - a. Areas with direct impacts to legally protected resources (federally listed plants, wildlife, fish, cultural, paleo)
 - i. De Beque Area (including Castle Rock, South Shale Ridge and Pyramid Rock)
 - ii. Whitewater
6. Install informational kiosks and signing where they would be most effective. Site these facilities where it would reach the greatest number of visitors and where it would target an audience that might be the most receptive to such facilities. For example such facilities might be most beneficial at major trailheads and campgrounds that are heavily visited by camping families and groups.
7. Develop and publish up-to-date, readily available, and easy-to-understand maps.
8. Regularly maintain signs, kiosks, routes, maps, and brochures.
9. Begin area and route rehabilitation in priority areas, such as riparian zones and along main roads.
10. Area and route rehabilitation would require active maintenance for at least one year to prevent reestablishment of routes, and to promote the growth of seed and plants.
11. Initiate enforcement and visitor service patrols with the objective of securing funding to sustain new visitor service patrols for a period of at least two years. Additional funding will be sought through BLM channels and through partnerships to leverage grants or other available funds.
12. As enforcement efforts move into new areas, inappropriate use could migrate back to areas where it is not desired. Therefore, the enforcement strategy will need to be flexible and adaptive and may include education contacts by recreation staff and monitoring by volunteers to support the capacity of law enforcement.
13. Initiate monitoring plan.
14. Begin development of area facilities.
15. Routinely Maintain signs, kiosks, routes, maps, and brochures
16. Monitoring analysis.

4.2 Priorities for Site-specific Analysis

Types of surveys required would depend on the habitat type in which the route occurs.

New routes

1. New and existing routes paralleling and/or crossing stream channels supporting riparian communities. Typical survey work may include: collection of baseline

morphologic data of stream channel, banks, and floodplain; site specific route information necessary to accurately input and run Water Erosion Prediction Program (WEPP) simulations, PFC evaluations and/or stream stability evaluations.

2. New/existing routes with multiple drainage crossings (specifically the ingress/regress to drainages) and/or routes which utilize dry washes as travel routes. Typical survey work may include: collection of baseline morphologic data of stream channel, banks, and floodplain; site specific route information necessary to accurately input and run WEPP simulations.
3. New/existing routes on mapped "Fragile soils". Survey data would be required to confirm existing or proposed routes are on mapped "Fragile soils".

Existing routes

1. Existing routes to be upgraded (widened and/or type of use changed from existing).
2. Existing routes with an expected increase in motorized use.
3. Existing routes with an expected increase in mechanized use.
4. Existing routes with an expected increase in pedestrian/ horseback use.

4.3 Funding Strategy

Operations funding for cultural surveys, land health assessments, wildlife surveys, transportation maintenance, and related costs will be determined on an ongoing project basis, and planned annually, subject to budget appropriations being available. BLM will strive to lower the costs through partnerships, in-house labor, and careful engineering.

Funds for labor, supplies and equipment will be pursued through the BLM budget process, and will be subject to appropriation of funds. Funding sources may include BLM Damaged Lands accounts, and grant monies available to non-profit groups. Funding will be pursued through Challenge Cost Share projects, an agency program that matches other funding sources, assistance agreements, or plans to leverage external contributions to the greatest extent possible. Grants from various sources will be pursued, including state, federal, and private funding sources. This may include the Federal Lands Transportation Program and Federal Land Access Program Routes for operating and maintaining roads that are for high use recreation sites and important economic generators. Appropriate agreements will need to be created.

4.4 Standard Operating Procedures

The following standard operating procedures will be implemented during all phases of plan implementation.

General

- A visitor access guide will be published and made available as full size hard copy maps for sale, smaller maps available for free and posted virtually on the internet.

- Appropriate NEPA analysis will be obtained prior to any ground disturbance not discussed in this plan, and impacts to cultural resources, or other resource values, that may be discovered will be mitigated or avoided.

Routes

- Standards and guidelines will be developed for BLM road and primitive road maintenance, new construction, or reconstruction. The standards and guidelines for primitive roads will be based on the functional requirements of the various types of recreational motorized users. BLM will not develop, endorse, or publish road or trail ratings. BLM will simply describe the physical aspects of a route or recreation site, such as those which only accommodate technical vehicles.
- Maintenance standards for each designated route will be documented and route modifications will be identified and recommended, if necessary. Maintenance will be completed only to the identified maintenance intensity level in order to support resource and public protection.
- Maintenance of routes may be done to minimize soil erosion and other resource degradation. This maintenance will be done on a case-by-case basis, depending upon annual maintenance funding.
- Maintenance procedures for physical barriers will be developed, once the number and type of barriers is determined.
- Modifications of the road network during implementation of the TMP would require project level NEPA, such as the construction of a new route involving new ground disturbance, except where new construction is necessary to avoid a cultural resource site or sensitive species.
- Minor realignments of the route network that have already been analyzed may not require additional NEPA. The term “minor realignment” refers to a change of no more than one quarter (1/4) mile of one designated route. It could include the opening of an existing, but previously “closed” route that serves the same access need as the “open” route that is to be “realigned.” “Minor realignments” include the following:
 - Minor realignments of a route where necessary to minimize effects on cultural resources.
 - Minor realignments of a route necessary to reduce impact on sensitive species or their habitats.
 - Minor realignments of a route that would substantially increase the quality of a recreational experience, while not affecting sensitive species or their habitat, or any other sensitive resource value.
 - Minor realignment where valid ROWs or easements of record were not accurately identified in the route designation process.

Minor realignments must be documented in the TMP. The reason for the alignment change shall be recorded and kept on file in the GJFO.

The proposed BLM routes include roads or primitive roads that provide the principal access from the public highway system to public lands in the planning area. These routes are the main connectors of the planning area's existing travel route network under current and foreseeable traffic patterns. These routes function as BLM local routes, although road standards may vary depending on type of use or to meet specific management objectives. These major connector routes will generally be the priorities for pursuing legal access acquisition or adjudicating existing access rights across non-federal land where no legal access (e.g., easement) exists, and for completing maintenance to ensure long term, legal public access to the public lands in the planning area is provided. These connector routes will generally be the highest transportation maintenance priority. Road segments from the public highways to the public land may be posted with "Public Land Access Route" signs.

When accepting a proposal to change the route system, the authorized officer will consider cost recovery for processing the proposal, such as in the case of a ROW. Only after NEPA analysis has occurred will a formal decision to accept or reject a specific route change be made.

Lands Actions

Lands actions include the following:

- Improve legal access to public land, where appropriate and necessary.
- Identify needs and request funding for motorized and non-motorized access, exchanges, and acquisitions and incorporate them in the existing ranking system.

Easements, ROWs, and Permissive access license agreements include:

- Acquisition of road or trail easement or issuance of an ROW on an existing or historic physical access will be pursued only in areas where those actions will contribute to the protection of natural resources and not for the sole enhancement of recreation opportunity.
- Easements may be acquired through donation following the procedures set forth in BLM Manual 2100 - Acquisition.

When accepting a proposal, the authorized officer should consider cost recovery. Only after NEPA analysis has occurred will a formal decision to accept or reject a specific route change be made.

4.5 Mitigation Measures

Mitigation - Alleviation or lessening of possible adverse effects on a resource by applying appropriate protective measures; and may be achieved by reroute, maintenance, conduct resource survey and remedy of safety issue and/or secure public access. Some routes may change designation following the completion of prescribed mitigation. Routes with proposed designation changes are shown above in Table 2.

During the structured analysis process, sensitive resources were identified requiring mitigation measures that would minimize effects to resources.

Best management practices such as, but not limited to, closures, relocations, drainage improvements, maintenance, hardening, change in motorized/non-motorized use, seeding, etc. shall be promptly implemented when monitoring or field reviews indicate such action is appropriate.

4.5.1 Soils and Hydrology

- a. Stream Crossings/Drainage Issues:
 - i. Improve drainage crossings by constructing bridges, installing culverts, or improving low-water crossings where necessary to minimize impacts to water resources. Utilize BLM manual handbooks 9113 (Roads Design) and 9115 (Primitive Roads Design) for guidance on placement, design (sizing), and construction of bridges, culverts, and low-water crossings.
 - ii. Follow guidance outlined in BLM manual handbooks 9113 (Roads Design) and 9115 (Primitive Roads Design) to address road drainage issues outside of stream crossings (e.g., installation and spacing of water bars and drain dips).
 - iii. Where possible, reduce the number of drainage crossings on a given route.
 - iv. Stream crossings should be designed to accommodate passage for aquatic species.
 - v. Limit expansion of road/trail prism at drainage crossings by controlling ingress and regress points. Use physical barriers where use would be practical to protect the resource and safe for users.
 - vi. Re-locate stream crossings if necessary to minimize impacts to water quality and stream channel morphology.
 - vii. Utilize all other appropriate standard operating procedures and best management practices (and others as approved) outlined in Appendix H of the GJFO-RMP/FEIS to protect soil and water resources.
- b. Route Placement and Evaluation:
 - i. Ensure use route designations, road type and maintenance levels are appropriate for the use. Follow guidance from BLM manual handbooks 9113 (Roads Design) and 9115 (Primitive Roads Design).
 - ii. Use BLM-GJFO Trail Design Criteria along with BLM Manual handbooks 9113-2 (Roads National Inventory & Condition Assessment Guidance & Instructions) and 9115-2 (Primitive Roads National Inventory & Condition Assessment Guidance & Instructions) to evaluate road conditions for maintenance and mitigation.

- c. Consider construction of flood-water retention basins and/or sediment retention basins within and downstream of Open areas, intensive motorized use areas, areas identified as not meeting land health standards, or as necessary to protect public health and safety and private property. Such facilities would be subject to all applicable regulatory permitting requirements.
- d. For primitive routes or trails utilizing ephemeral drainages or crossing sensitive soils, provide educational information outlining resource/safety concerns and responsible use of such routes at trail heads, kiosks, area maps, and free pamphlets.

4.5.2 Cultural

- a. The BLM GJFO will work with Colorado State Historic Preservation Office (SHPO) to develop agreements related to travel management and cultural resource which may include the use of strategic cultural resource survey sampling and modeling in portions of the GJFO. (See TMP Attachment 3)
- b. Prior to any ground disturbing activity cultural resource surveys, in compliance with Federal laws, would be completed and the appropriate entities, such as SHPO and interested Native American tribes, would be consulted with prior to the activity occurring.
- c. For trail and road construction projects and maintenance projects the BLM may choose one of the following options if significant (eligible or potentially eligible “needs data”) cultural resources are discovered or known in the area:
 - i. The BLM may choose to not perform construction or maintenance on areas that would directly impact sites,
 - ii. The BLM might reroute roads, primitive roads, and trails to avoid significant cultural resources on existing and proposed construction. These reroutes would require surveys for cultural resources and would have to allow for other resource specialists to analyze the locations of the reroutes,
 - iii. The BLM may choose to conduct evaluative testing to determine final eligibility on potentially eligible sites. The BLM would consult with SHPO on changes to site eligibility.
 - iv. Eligible sites may be mitigated via data recovery through excavation to reduce the effects of the trail and road maintenance, reclamation, and construction. Both SHPO and interested Native American tribes would be consulted prior to any proposed data recovery mitigation on significant cultural resources.

4.5.3 Sensitive Status Species

- a. To prevent the seeding and spread of invasive, non-native species, BLM-approved seed mix will be used during reclamation activities, and seed mixtures shall contain no noxious, prohibited, or restricted weed seeds. Where soil disturbance will occur, all

equipment will be required to be cleaned and inspected prior to use within the planning area. Public education and signs promoting the use of clean vehicles to prevent the spread of weeds, shall be included in entry kiosks and on literature.

- b. In undisturbed environments and ACECs, prohibit new disturbance within 200 meters (656 feet) of current and historically occupied and suitable habitat.
- c. Reduce as much as practicable route density (miles/square mile) within 200 meters of known Threatened and Endangered plant occurrences throughout the field office. If occurrences are identified in the future that conflict with route designations, implement reroutes.
- d. Reduce redundancies in routes to minimize habitat fragmentation, and minimize direct impacts to listed plant species habitat, and occupied habitat from motorized and mechanized users of roads, routes and trails. Identify mitigation where open routes are negatively effecting designated critical habitat.
- e. Limit new road construction in Reeder Mesa, Sunnyside, Logan Wash Mine, and South Shale Ridge, and designate new roads associated with authorized uses as administrative (e.g., oil and gas and ROWs). Rehabilitate and close roads associated with authorized uses when no longer needed.
- f. Existing plant location records will be consulted and site inventories will be conducted to identify suitable habitat₁ for these plants. Surveys for occupied suitable habitat will be performed prior to any ground disturbance. Surveys will take place when the plants can be positively identified. Surveys will be performed by qualified field botanists/biologists who will provide documentation of their qualifications, experience and knowledge of the species prior to starting work (**FWS-5**).
- g. For Colorado hookless cactus and other Threatened (T), Endangered (E), Proposed (P), and Candidate (C) species surface disturbing activities will be avoided within 200 meters of occupied plant habitat₁ wherever possible and where geography and other resource concerns allow₂. Fragmentation of existing populations and identified areas of suitable habitat will be avoided wherever possible (**FWS-7**).
- h. For BLM sensitive species surface-disturbing activities will be avoided within 100 meters of occupied plant habitat₁ wherever possible and where geography and other resource concerns allow₂. Fragmentation of existing populations and identified areas of suitable habitat will be avoided wherever possible (**FWS-8**).
- i. Where development is allowed within 100 meters of occupied habitat for T, E, P and C species or BLM sensitive species, unauthorized disturbance of plant habitat will be avoided by on-site guidance from a biologist, and by fencing the perimeter of the disturbed area, or such other method as agreed to by the Fish and Wildlife Service. If

detrimental effects are detected through monitoring, corrective action will be taken through adaptive management (**FWS-9**).

- j. Surface disturbance closer than 20 meters to a listed plant will be considered an adverse effect. Mitigating measures within this narrow buffer are very important and helpful to individual plants, but we do not expect that all adverse effects can be fully mitigated within this distance. Some adverse effects due to dust, dust suppression, loss of pollinator habitat, and toxic spills will likely remain. There are two possible exceptions to this rule of thumb: 1) The new disturbance is no closer to a listed plant than preexisting disturbance and no new or increased impacts to the listed plant are expected; or 2) the listed plant is screened from the proposed disturbance (e.g., tall, thick vegetation or a berm acts as a screen or effective barrier to fugitive dust and other potential impacts) (**FWS-10**).
- k. Transplantation of potentially affected plants will not be used as a rationale to defend a “not likely to adversely affect” or a “no effect” determination for listed plant species (**FWS-11**).

4.5.4 Riparian

- a. Road crossings that will be used for longer than one year on perennial streams will be engineered and/or approved by the BLM Authorized Officer (VRW-3).
- b. Do not locate roads or other facilities immediately parallel to streams. Where roads or facilities must cross streams, cross perpendicularly and immediately exit the buffer zone (VRW-4).
- c. Armor low water stream crossings, place properly sized culverts, or span streams as appropriate to protect the riparian zone (VRW-5).
- d. If monitoring or PFC assessments indicate impacts to PFC then then consider re-route of roads and trails that parallel and/or cross functioning at risk or non-functioning riparian areas, and that are contributing to decline (sedimentation) of these systems.
- e. Relocate existing roads away from riparian areas as feasible during requested permitting or authorization of these routes. Reclaim abandoned portions of relocated roads back to natural conditions. Recontour routes back to natural slopes as feasible, rip compacted soils (except for in close proximity to desirable trees), and seed disturbed areas (VRW-24).
- f. Utilize the techniques and process for protection of floodplains as identified in Executive Order 11988 – Floodplain Management (VRW-2).
- g. Roads and trails (off-highway vehicle, horse, bicycle, and hiking) will avoid wetlands and if avoidance is not possible will be designed and constructed in accordance with Technical Reference 2E22A68-NPS, Off-highway Vehicle Management (VRW-8).

- h. Minimize route crossing of streams (intermittent and perennial) and wetlands.
- i. Maintain appropriate vegetative/riparian buffer from routes of at least 200 meters around riparian and wetland areas to protect and enhance the health and function of these systems.
- j. Locate project staging areas for refueling, maintenance equipment, materials, operating supplies in areas outside of riparian and wetland areas.
- k. Reclaim abandoned routes after completing re-route of roads and trails that are impaction riparian function. Follow general reclamation guidance with special reclamation procedures for stream crossings (see hydrology section).

4.5.5 Recreation

- a. Whenever possible, complete trail reroutes or route system additions/modifications prior to closure of non-system routes. Creating viable alternatives to closed routes reduces the impact to recreation opportunities and outcomes.
- b. Utilize all other appropriate standard operating procedures and best management practices (and others as approved) outlined in Appendix H of the GJFO-RMP/FEIS to protect and enhance recreation resources. Applicable Recreation BMPs from Appendix H include:
 - a. **REC-4:** Utilize current GJFO “Trail Development Process” and “Trail Design Criteria” guidance (see Attachment 1 to this TMP) to create and maintain a sustainable recreational route system that helps achieve recreation and other resource use objectives while protecting natural and cultural resources. (BLM 2014 and 2005).
 - b. **REC-5:** Reroute or close trails that create resource damage and/or trespass on private property.
 - c. **REC-25:** Promote the seven standard principles of Leave No Trace (www.Int.org) outdoor ethics through print and electronic media, and through personal communications with recreationists participating in non-motorized recreation activities on BLM-managed public lands.
 - d. **REC-26:** Promote the principles of Tread Lightly (www.treadlightly.org) outdoor ethics through print and electronic media, and through personal communications with recreationists participating in recreation activities on BLM-managed public lands.
- c. Hand raking and disguise of prominent “closed” routes, including planting commonly found plants on “closed” routes, will be employed to help discourage use.
- d. Proactive route rehabilitation work would be utilized where the other actions have not proven to be successful, or where route conditions were clearly beyond the capability of the first phase to address.

- e. Focus on signing of the open route network so that it is highly visible, thus discouraging interest in closed routes. The signing of closed routes will be done very infrequently, since they have been found to be more of an attractant than a deterrent to unauthorized use.

4.6 Adaptive management

Adaptive management will be based on monitoring standards and identified resource concerns.

For example: If resource degradation is found through monitoring to be occurring due to type of use on route, consider changing use on route to mitigate concern.

4.7 Supplementary Rules

Supplementary rules will need to be established for those areas identified in an RMP/TMP where non-motorized access is limited to designated routes or some other limitations on use. See 43 CFR 8365.1-6 for the supplementary rulemaking process.

Attachments

Sign Plan

Area and Route Signing

A sign plan is necessary to ensure that signs placed in an area are consistent with land use and other planning documents; that they are designed to be consistent with all applicable laws, regulations, and policies; and that all signs adhere to a consistent theme. A sign plan should include the goals, objectives, and responsibilities for the placement of signs, as well as an inventory of existing signs and may include a process for designing/locating new signs.

BLM Sign Guidebook covers location and placement, along with speed of travel in Chapter 4, Design Standards. Colorado Inter-Agency Travel Management Sign Standards have been developed and will be used in signing for the GJFO. (See TMP Attachment 2)

Sign Types

There are several types of signs that states should consider when developing state sign policy and implementing TMPs. Efforts should include identification and information signs at trailheads and entrances, and along trails, roads, primitive roads, intersections, authorized, and closed areas.

Trail Signs

There are two types of trail signs, allocation signs, and reassurance markers. Allocation signs show the permitted and not permitted uses of the trail. These signs are used at trailheads, where a trail begins, intersections, or anywhere there is a change in use type. Reassurance markers provided markers so trail users know they are still on the right trail. For example, symbols could be an arrow or the trail logo.

Road Signs

Road signs apply to signage for linear routes managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use. The Manual on Uniform Traffic Control Devices standards apply to these roads. There are cases where some roads will be open to unlicensed OHVs. Signs for these roads are marked in a manner that notifies or warns the public of mixed uses.

Primitive Road Signs

Primitive road signs apply to signage for linear routes managed for use by four-wheel drive or high-clearance vehicles. These routes do not normally meet any BLM road design standards.

Other Types of Signs

Trailhead or entry signs apply to signs used at entry to trails or access points to public lands. These signs are used to notify the public of the travel management strategy or designation of the area they are entering, such as “areas limited to designated routes,” “areas limited to exiting routes,” or “open areas.”

Sign Placement

Travel management signing and allocation information need not be on every trail sign along the trail corridor. Travel management signs should be placed at the trailhead and at trail junctions where travel management is changing or needs reinforcement.

Education Plan

An improved public outreach program will be initiated to instill and strengthen a more effective and responsible resource use ethic. For mapping and signing efforts, particularly at information kiosks, the GJFO will develop appropriate resource information and education. Legal penalties language will be included in all handouts, maps, and kiosks.

The BLM will work with cooperating associations and community groups to better distribute interpretive materials. In order to achieve outreach and education objectives, it is imperative to create sustainable partnerships with private groups and governmental organizations.

Established educational efforts related to trail use will be promoted, including Stay the Trail, Leave No Trace, and Tread Lightly.

Targeted Methods of Communication

Methods of communicating with the public include the following:

- Podcasts: with downloadable items such as maps, land use ethics, rules, air quality alerts, fire prevention restrictions, emergency announcements, etc.
- Electronic Kiosks: downloadable items such trail track logs, audio storytelling for cultural, historic, natural interpretative information
- Web Video & Focus Surveys: interactive sites for user info and feedback to BLM
- Web site: updated regularly and designed to give viewers something new each time they view the page, including GIS data posted to the BLM website for self-service data acquisition.
- Public Service Announcements: via radio, newspaper, TV, etc.
- Traditional Brochures and Guides

Enforcement Plan

Currently, law enforcement coverage is provided by BLM Rangers. Enforcement actions are typically in response to complaints, and patrols are conducted on a periodic basis depending on priorities throughout the GJFO. Partnerships with local businesses and organizations will be encouraged to promote safe and responsible use of public lands. Volunteer groups may assist with monitoring, public education, and special events.

Goals for a successful enforcement plan include:

- Increasing the presence of BLM law enforcement staff and BLM law enforcement in the area. BLM park rangers will conduct high profile, routine patrols in the area to educate users about laws and regulations. They may initiate emergency or law enforcement response simply by being first on-scene;
- Improving and expanding interagency cooperation in the area;
- Concentrating efforts on high use periods, such as weekends and holidays;
- Focusing targeted enforcement in “hot spots;”
- Increasing enforcement capacity, including the use of new technology;
- Supporting volunteer efforts to educate the public on rules and etiquette; and
- Encouraging educational and monitoring efforts by volunteer user groups and citizen-based education groups, which can leverage formal law enforcement efforts. Volunteer user groups will educate users on rules and etiquette for the area.

Rehabilitation Plan

As determined as necessary, Rehabilitation actions will be determined according to the following considerations:

1. Where route use is currently visible -
 - a. Sign as closed and allow to naturally re-vegetate, or
 - b. Sign as closed and reclaim through appropriate reclamation methods, use native seed blend as a priority (assure that proper site specific survey has been complete), or
 - c. Sign route as closed, place a berm or other barrier and leave to natural re-vegetation.
 - d. Barriers will be placed in areas deemed necessary.
 - e. Sign route as closed and reclaim the portion that is visible from open routes, and allow the rest to reclaim naturally.
 - f. Sign route as closed and reclaim the entire route.
2. Where route use is not currently visible and appears to be naturally reclaiming -
 - a. Leave route to natural re-vegetation
 - b. Sign route as closed and leave to naturally reclaim.
3. Resource concerns (hydrology, cultural, etc.) are present and correlated with the disturbance, choose from the following options
 - a. Sign route as closed, place a berm or other barrier and leave to natural re-vegetation.
 - b. Barriers will be placed in areas deemed necessary.
 - c. Sign route as closed and reclaim the portion that is visible from open routes, and allow the rest to reclaim naturally.
 - d. Sign route as closed and reclaim the entire route.

Reclamation Standards

The following reclamation standards will be followed:

- a. Routes identified for closure will not alter natural hydrologic function and condition of the affected watershed (e.g., closed routes will not divert runoff from natural drainage patterns).
- b. Disturbed areas will be fully re-contoured and re-vegetated with BLM-preferred seed mixtures.
- c. Seeding will be done where necessary to aid rehabilitation of closed routes. Appropriate native seed mixtures will be selected for each site based on site conditions. Reclamation techniques include ripping the surface with a tractor to break up compacted soil and allow rain retention. Broadcast seeding will be done prior to winter. Some areas will be fenced to prevent disturbance and allow for grazing rest during the first two growing seasons. This technique is typically used near main roads where camping or parking may occur.
- d. BLM will utilize native material such as rock and large woody debris to the greatest extent practicable in combination with manufactured stormwater structures (e.g., silt fence and straw wattles), and mechanical erosion control techniques (e.g., ripping and pocking) to minimize erosion and facilitate site stability.
- e. Reclamation techniques for routes in Wilderness, Wilderness Study Areas, and Lands with Wilderness Characteristics will be specifically planned to return the area to its original condition in the shortest amount of time.
- f. Weed and vegetation treatment control measures will be implemented as needed to promote re-vegetation with native plants, prevent any new weed establishment, and control of existing weed sources.

Reclamation/Rehabilitation Techniques and Rationale for Selection

Reclamation/Rehabilitation actions will be undertaken according to the methods described below. Options are presented below in order of lowest to greatest level of ground disturbance, and are categorized between manual and mechanical techniques. Manual techniques can be implemented with basic hand tools while mechanical techniques require the use of mechanized or motorized equipment.

Manual Techniques:

- **Passive:** Allow the route to naturally reclaim without any signing, ground disturbance, or replanting of vegetation. This method is proposed in lightly used areas and on routes where restoration is already occurring. The goal is to avoid attracting attention by not signing or fencing these lightly used routes. This is the least obvious method of closure, least costly to BLM, and provides a high degree of naturalness when successfully implemented.
- **Sign only:** This method applies mainly to upland routes in lightly used areas and is proposed on routes in lightly used areas and/or in areas where compliance with signage is expected to be good. The signage can be removed to complete the rehabilitation process.
- **Hand rake out tracks only:** This applies mainly to sand washes where erasing the evidence of use in lightly used areas may be enough to prevent attracting future use. This is very light on the land and provides a high degree of naturalness when done. The goal is to avoid attracting attention, and thus use, on these lightly used routes. Monitoring and raking is required to ensure effectiveness and may be required for up to one year.
- **Rake out tracks and sign:** This method applies mainly to sand washes in lightly used areas. A sign reinforces the closure by placing physical notice for visitors and to assist law enforcement. This method is low cost to BLM and provides a moderate degree of naturalness when done. A downside to this method is the potentially high number of closed signs that can accumulate in a given area and the perception that many routes are being closed, leading to vandalism. Monitoring is required to ensure effectiveness. Signage can be removed to complete the rehabilitation process.
- **Fence and sign/fence only:** This method applies to both upland and dry wash routes. This type of closure has little ground disturbance and is used in areas where fence cutting would be expected to be minimal. Generally, the fence type would be T-post and four strand smooth wires with reflectors; however, the fence type could be increased to pipe rail/steel rail as needed while still maintaining a small footprint at the beginning or end of the route. Fencing and signs can be removed to complete the rehabilitation process.
- **Vertical mulch with berm/fence and sign:** This method works in upland areas where occasional use of the route in lightly used areas prevents

natural restoration. A sign provides physical notice and assistance to law enforcement. A T-post and four strand smooth wire fence works best when the fence is placed in an area where bypassing it is difficult. Combined with a sign and/or fencing, actively placing cuttings of cactus, transplanted bushes, and scattering juniper duff in the wheel tracks may be enough to prevent use. Placement of plants in the closed route to the visible horizon minimizes cost and ground disturbance. Native seed mixtures may also be applied to enhance the effectiveness of rehabilitation.

- Barriers (fences, brush, plants, and boulders): Physical blockades constructed to prevent the passage of vehicles. The only manual type of fencing would be wire fencing.

Mechanical Techniques:

- Berm with signs: This method would be applied in upland areas where a berm cannot be bypassed. This type of closure has less ground disturbance since soil is only moved to create a berm at the beginning or end of the closed route. Signage provides physical notice to visitors and assistance to law enforcement. The berm stands as an indicator of closure if the sign is removed, providing additional notice to visitors. After the route has restored, berms can be removed or flattened to complete the rehabilitation process.
- Rip/harrow: A more expensive, but effective way to eliminate route use and expedite vegetation regrowth. These techniques are necessary in high use areas where use is likely to continue on a route if not made completely obvious that the route is being restored. One hundred percent of the closed route surface is disturbed by this method. A tractor-towed disc harrow or a finger-type winged ripper mounted on a tractor or bulldozer would be the typical equipment used. Benefits include reduced soil compaction and improved seed germination and establishment. Drawbacks to these methods are: (1) significant plant growth (20% cover) may take up to five years; (2) no regrowth may occur if barriers are bypassed and use continues on the ripped road bed; (3) the complete removal of existing vegetation resulting in a temporarily prominent disturbed area; (5) increased likelihood of invasive weed infestation, and (5) possible disturbance of undiscovered buried cultural resources. Under this method, soils would be ripped or harrowed to a depth of 18 – 24 inches. Preferably compacted soils will be ripped in two passes at perpendicular directions to a minimum depth of 18-24 inches, at a furrow spacing of no more than 2 feet.
- Barriers: Physical blockades constructed to prevent the passage of vehicles. Types can be earthen mounds, wire fence, pipe rail fence, post and cable fence, concrete wall sections (also referred to as Jersey or K-rail barriers), or free standing steel structures commonly referred to as Normandy barriers.

Programmatic Objectives/Considerations – Reclamation/Rehabilitation Standards

The following reclamation/rehabilitation principles will be considered when determining the most effective reclamation/rehabilitation strategy:

- a. Routes identified for closure will not alter natural hydrologic function and condition of the affected watershed (e.g., closed routes will not divert runoff from natural drainage patterns).
- b. Where appropriate to meet visual, hydrologic, and soil objectives, disturbed areas would be fully re-contoured and re-vegetated with BLM-preferred seed mixtures.
- c. Seeding will be done where necessary to aid rehabilitation of closed routes. Areas reclaimed with ground disturbing activities such as raking, berming, ripping, and harrowing would likely require seeding following disturbance, especially in low elevation areas (below 6,000 feet), or in areas with weed infestations. Appropriate native seed mixtures will be selected for each site based on site conditions.
Reclamation techniques include ripping the surface with a tractor to break up compacted soil and allow rain retention. Before reseeding, all surfaces should be scarified and left rough. If more than one season has elapsed between final seedbed preparation and seeding, and if the area is to be broadcast-seeded or hydroseeded, this step should be repeated within 24 hours before seeding to break up any soil crust. Broadcast seeding will be done prior to winter. Some areas will be fenced to prevent disturbance and allow for grazing rest during the first two growing seasons. This technique is typically used near main roads where camping or parking may occur. In areas of challenge or low reclamation potential on steep slopes, seedbed prep techniques may include pocking/pitting to form microbasins scaled to the site and materials. These microbasins should be constructed in irregularly spaced, irregularly aligned rows oriented perpendicular to the natural flow of runoff down a slope. Other than such depressions created to support reclamation success, no depressions should be left where water could pond, with the following exceptions: terminal stormwater containments designed to silt in over time; other stormwater/snow storage basins. BMPs such as hydromulch, blankets/matting, wattles, etc. may also be required.
- d. BLM will utilize native material such as rock and large woody debris to the greatest extent practicable in combination with manufactured stormwater structures (e.g., silt fence and straw wattles), and mechanical erosion control techniques (e.g., ripping and pocking) to minimize erosion and facilitate site stability.

- e. Reclamation techniques for routes in Wilderness, Wilderness Study Areas, and Lands with Wilderness Characteristics will be specifically planned to return the area to its original condition in the shortest amount of time.

Weed Management Considerations

- All heavy equipment used for reclamation work should be cleaned prior to use to reduce the potential for introduction of noxious weeds or other undesirable non-native species.
- Evaluate the need for pre-closure roadside treatments to target invasive species in the roadbed or along the shoulders of roads.
- As needed, implement weed control measures on re-seeded routes to promote survivability and competition by seeded species.
- Prioritize reclamation weed treatments based on likelihood of success, available funding, and available treatment resources.
- Plant species that are good competitors against weeds (native or non-native).

Vegetative Community Considerations

- Lower elevation sagebrush
- Upper elevation sagebrush
- Desert shrub
- Pinyon
- Potentially rest or protect treated areas from grazing (example: temporarily fence seeded area)

Wildlife Habitat Considerations

For some wildlife species simply closing routes and reducing disturbance is sufficient to minimize impacts. For other species the physical presence of the route limits use by fragmenting habitat patches and creating edge effect which may encourage use by competing species or predators.

Rehabilitation efforts should be prioritized base on the sensitivity of species to the physical presence of the road, and the overall rarity of the species. The following priorities are expected in the short term, but may change over the life of the plan

- Occupied greater or Gunnison sage-grouse habitat
- Potential greater or Gunnison sage-grouse habitat
- Routes within designated critical habitat for federally listed species
- Routes within habitat for BLM sensitive species
- Routes that are unlikely to reclaim and return to usable habitat without human intervention

Aquatic Considerations

Simply closing routes does not necessarily reduce erosion and sedimentation impacts to aquatic habitats/species. In the absence of active rehabilitation, several factors play into closures benefitting aquatic habitats including:

- *Elevation*
 - Higher elevation areas generally have better natural rehabilitation capability based primarily on increased precipitation. Lower elevation areas are less likely to rehabilitate on their own and in the absence of active rehabilitation, might be prone to increased erosion/sedimentation vs. being left open with at least some potential for periodic maintenance.
- *Aspect*
 - North aspects generally have better natural rehabilitation capability based on moisture retention.
 - South facing aspects generally have less potential based on moisture retention.
- *Slope*
 - Slopes less than 30% have a better chance for natural rehabilitation.
 - Slopes greater than 30% have less chance for natural rehabilitation.
- *Proximity to drainage/stream*
 - Distance to aquatic habitats factors into erosion and sedimentation impacts and concerns - the further the route is away from drainages, the less impactful it is likely to be.
- *Upland and Riparian Vegetation Condition*
 - Upland vegetation located between routes and hydrologic features that are meeting Land Health Standards and are in good condition serve to help buffer erosion and sedimentation impacts.
 - Riparian vegetation that is meeting Proper Functioning Condition or preferably is in climax or late seral condition provides a buffer to the impacts of erosion and sedimentation associated with routes.
 - Otherwise, some level of rehabilitation to help reduce or eliminate erosion and sedimentation concerns is needed to really benefit aquatic species and habitats associated with the closure of routes.
 - Proper periodic maintenance is key to reducing the effects of erosion and sedimentation to aquatic habitats/species

Recreation Considerations

Effective reclamation of closed routes is important for meeting a variety of recreation management objectives, including:

- attainment and maintenance of physical and social settings that support prescribed recreation activities and outcomes in ERMA's and SRMA's;
- reduction of visitor confusion resulting from un-marked non-system routes;
- increased visitor safety through reclamation of unsafe non-system routes; and

- reduced sign installation and maintenance costs associated with un-rehabilitated closed routes.

In general, route closures for recreation are most effective when the designated route system provides the desired recreation activity and outcome opportunities, and closed routes are completely naturalized to eliminate the visual remnants of the former route. Therefore, route closures will be most effective when any route system redesigns or reroutes are completed prior to implementation of route rehabilitation efforts. Whenever possible, closed routes should be naturalized on all portions of the route visible from designated system routes. This reduces the need for signage, and the temptation for recreationists to use former routes. Naturalization of closed routes also enhances the naturalness component of an area's physical setting characteristics, which can be important in attainment of recreation outcomes in SRMAs.

While naturalization of closed routes is generally preferred, the full suite of route closure options should be considered to account for the variability of terrain and circumstances throughout the field office.

Prioritize rehabilitation in SRMAs and ERMAs.

Cultural Considerations

Standards:

- Rehabilitation of closed routes will only occur after Section 106 of the National Historic Preservation Act has been completed for the portions of the route where surface disturbing rehabilitation methods will be employed (versus portions of routes where natural re-vegetation will be allowed).
- In accordance with the rehabilitation options, cultural resource surveys will be conducted for the following:
 - At least 500 ft. of the length of the road (or section to be rehabilitated) will be inventoried where closure actions follow numbers 4, 5, and/or 7 of the rehabilitation actions.
 - Cultural inventories will be completed for closure sign posting locations.
 - Cultural resource surveys will be conducted for reclamation of an entire road when ground disturbing methods for reclamation will be used.
 - Before new proposed routes, open areas, and locations where concentrated travel may occur are designated, the Section 106 process will be completed.
- Areas for cultural resource inventory should be prioritized based on the proposed rehabilitation method; areas proposed for ground disturbing methods should be surveyed as a higher priority than areas where rehabilitation will not affect subsurface deposits.
- Routes that are planned for closure and qualify as eligible or potentially eligible historic trails should be rehabilitated in such a way as to not diminish the integrity of the resource.

Priorities:

1. Rehabilitate designated as closed routes that are directly and adversely impacting known eligible and potentially eligible cultural resources (route in or through site, site proximate to route, route terminus at site, area of Tribal significance, site on National Register of Historic Places, or historic trail).
2. Rehabilitate designated as closed routes that are indirectly impacting known eligible and potentially eligible cultural resources (site proximate to route, visible or nuisance sites, or area of Tribal significance).

Riparian Considerations

Reclaim abandoned portions of relocated roads that pass through or are adjacent to riparian zones back to natural conditions. Recontour routes back to natural slopes as feasible, rip compacted soils (except for in close proximity to desirable trees), and seed disturbed areas (VRW-24).

During reclamation activities locate project staging areas for refueling, materials, and operating supplies outside of riparian and wetland areas. Also minimize surface disturbance and vegetation removal and avoid damage or removal of large woody vegetation such as willows and cottonwoods.

Route closure fences should not be placed immediately on the edge of riparian areas. Place fences away from riparian or wetland areas and cross streams as close to perpendicular as possible.

Monitoring Plan

As required in 43 CFR §8342.3 (Designation changes): "The authorized officer shall monitor effects of the use of off-road vehicles. On the basis of information so obtained, and whenever the authorized officer deems it necessary to carry out the objectives of this part, designations may be amended, revised, revoked, or other actions taken pursuant to the regulations in this part."

A monitoring plan would be prepared and would include the measures for route closures and rehabilitation of impacted areas, levels, and types of uses. Natural resource conditions, such as soil erosion, spread of noxious weeds, and impacts to vegetation, would be monitored.

The success of the GJFO TMP is best determined through monitoring and evaluation. BLM will develop and implement a monitoring and evaluation program for the area. It will be designed to identify and address emerging issues that may adversely impact resources or visitor experience. The monitoring data will be used to evaluate implementation progress and the effectiveness of the TMP in achieving desired outcomes and conditions, and to identify adaptive measures should adverse impacts be discovered. The monitoring effort will identify specific actions, including timeframes, methods, and anticipated resource needs for environmental monitoring.

Consider seasons of use when monitoring.

The evaluation and monitoring program will be used for the following:

- To determine if resource and resource use objectives are being met;
- To determine visitor satisfaction;
- To determine use patterns and volumes;
- To determine the condition of roads and trails, the condition of public use areas, and compliance with planned designations and use restrictions; and
- To determine efficacy of cross-jurisdictional enforcement.

Limits of Acceptable Change indicators, or triggers, requiring adjustments to this management plan are as follows:

- Desired recreation experiences over a five year period are not being met as determined by surveys, visitor sign-in logs, or other data-gathering processes conducted in the planning area;
- Unauthorized routes, whether created by motor vehicle or non-motorized means, cannot be rehabilitated at the same rate as their creation with available funding or personnel;

- Priority or Special Status species habitat conditions are in a downward trend over a five year period, and it is determined to be a result of recreation or travel impacts;
 - Riparian condition trend is not improving over a five-year period, and it is determined to be a result of recreation or travel impacts; and
 - Visitor safety and assumed risk for non-shooters is determined by BLM to be unacceptable as determined by data collection and surveys conducted in the planning area.
- Riparian condition trend is not improving over a five-year period, and it is determined to be a result of recreation or travel impacts; and
 - Visitor safety and assumed risk for non-shooters is determined by BLM to be unacceptable as determined by data collection and surveys conducted in the planning area.

Some features of the monitoring plan will include:

- BLM employees and volunteers will be trained in the use of monitoring tools (e.g., monitoring forms, mobile digital devices, GPS units, and cameras) and protocols necessary for the collection and documentation of needed monitoring data.
- Photo-monitoring points will be established in key locations to monitor implementation actions and their effectiveness. For example, photo points can be established to monitor where cross-country travel has occurred, activity on “closed” routes has occurred, success of rehabilitation projects, extent of erosion mitigation areas as well as areas of good road quality for future reference. Photo monitoring points will be documented using GPS, and a monitoring schedule will be established;
- The monitoring data collected will be used to assess the effectiveness of the plan and associated implementation actions;
- “Closed” routes would be monitored for indications of use, rehabilitated routes will be monitored to determine effectiveness of seeding and water drainage, and sign conditions will be monitored within the planning area. Modifications to the plan would be considered if monitoring indicates that the goals and objectives are not being met;
- Visitor use data will be collected, compiled and analyzed to determine representative use patterns and trends on routes throughout the GJFO. Visitor use data will be collected primarily through the use of electronic traffic counters placed along routes or at primary access points.
- Recreation demand and preference data will be assessed through visitor surveys as funding and staffing allow;
- Upland health assessments will be conducted as warranted;

- Riparian health assessments will be conducted every 3 to 5 years;
- To maintain simplicity, hard copy binders backed up with digital data will be created and stored for a period of ten consecutive years. After ten years, only select photos and data will be retained for long term monitoring; and
- Management changes may occur based on monitoring or related data. Several different kinds of limitations, including vehicle numbers, types, use times or seasons, permitted use, designated routes, and other limitations necessary to meet land use plan objectives, may be implemented as necessary. The public would be notified of such changes.

Engineering Plan

Transportation system roads and trails are classified by maintenance levels specified in BLM Manual Handbook H-9113-2.

BLM Route Maintenance Intensities provide guidance for appropriate “standards of care” to recognized routes within the BLM. Recognized Routes by definition include Roads, Primitive Roads, and Trails carried as assets within the BLM Facility Asset Management System (FAMS).

Facility Asset Management System

All roads, trails and related facilities and infrastructure will be entered into the FAMS. FAMS is a tabular engineering database that does not have a spatial component, but the attribute fields for BLM Roads in GJFO will be linked to attribute data stored in FAMS similar to the way it had been linked to Facility Information Management System data in the past.

Condition Assessments

Condition assessments will be conducted for roads and trails in the planning area on a priority basis and in accordance with standards and guidelines currently described in IB-2000-005, *Road and Trail Condition Assessments*. The results of these assessments will be reviewed by the state engineering staff and, if approved, will be used to update the FAMS database. These updates will be linked to the appropriate data in GIS.

Routes Defined

BLM transportation guidance provides definitions for transportation routes, including roads, primitive roads, and trails, and the maintenance intensity classes for transportation assets. These definitions are used in the Grand Junction TMP.

- a. Road: A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.
- b. Primitive Road: A linear route managed for use by four-wheel drive or high-clearance vehicles. Primitive roads do not normally meet any BLM road design standards.
- c. Trail: A linear route managed for human-powered, stock, or OHV forms of transportation, or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

Functional Class

Functional classes indicate the relative importance of a route’s transportation and access functions, and are the basis for geometric design standards and maintenance guidelines. The functional classifications are determined according to guidance in *BLM Manual 9113 Roads*. Functional class is defined by collector roads, local roads, and resource roads.

Collector Roads are the highest standard of BLM road. They provide primary access to large blocks of land and connect with or are extensions of a public road system. Collector roads accommodate mixed traffic and serve many uses. They generally receive the highest volume of traffic within the BLM road system. User cost, safety, comfort, and travel time are primary road management considerations. Collector roads usually require application of the highest standards used by BLM. As a result, they have the potential for creating substantial environmental impacts and often require complex mitigation procedures.

Local Roads normally serve a smaller area than collector roads and connect to collector roads or public road systems. Local roads receive lower volumes, carry fewer traffic types, and generally serve fewer users. User cost, comfort, and travel time are secondary to construction and maintenance cost considerations. Low volume local roads in mountainous terrain, where operating speed is reduced by effort of terrain, may be single land roads with turnouts.

Resource Roads are usually spur roads that provide point access and connect to local or collector roads. They carry very low volume and accommodate only one or two types of uses. Use restrictions are applied to prevent negative interactions between users needing the road and users attracted to the road. The location and design of these roads are governed by environmental compatibility and minimizing BLM costs, with minimal consideration for user cost, comfort, or travel time.

Most of the routes in the planning area are designated as Resource Roads, unpaved, single lane, with very low traffic volume (Average Daily Traffic \leq 150 vehicle passes) and very low traffic speeds.

Maintenance Intensities

- Maintenance Intensities provide consistent objectives and standards for the care and maintenance of BLM routes according to identified management objectives. Maintenance Intensities are consistent with land-use planning management objectives (for example, natural, cultural, recreation setting and visual).
- Maintenance Intensities provide operational guidance to field personnel on the appropriate intensity, frequency, and type of maintenance activities that should be undertaken to keep the route in acceptable condition and provide guidance for the minimum standards of care for the annual maintenance of a route.
- Maintenance Intensities do not describe route geometry, types of route, types of use, or other physical or managerial characteristics of the route. Those items are addressed as other descriptive attributes to a route.
- Maintenance Intensities provide a range of objectives and standards, from “identification for removal” through frequent and intensive maintenance.
- Level 0 routes are existing routes that will no longer be maintained and no longer be declared a route. Routes identified as Level 0 are identified for removal from the transportation system entirely.

- Level 1 routes require minimum, low intensity maintenance to protect adjacent lands and resource values. These roads may be impassable for extended periods of time.
- Level 3 routes require more moderate maintenance due to low volume use, such as seasonal or year-round for commercial, recreation, or administrative access. Maintenance Intensities may not provide year-round access but are intended to provide resources appropriate to maintain a usable route for most of the year.
- Level 5 routes require high, maximum intensity maintenance due to year-round needs, high-volume traffic, or significant use. The Level 5 designation may also include routes identified through management objectives as requiring high intensities of maintenance or to be maintained and kept open on a year-round basis.
- The proposed maintenance intensity class will be developed for each route in the planning area. These will provide the basis for updating the FAMS database for the project area. Under BLM policy, transportation maintenance and repairs may be conducted on BLM routes on a case by case basis depending on need and following NEPA analysis.

Zone L (North Desert) Route Designation Considerations

Zone L (North Desert) proved to be one of the most challenging zones to consider, both for the BLM and for the public, due to its route density. Through public comment and further interdisciplinary consideration, the BLM determined that a different process was needed to make effective planning decisions for this zone.

Following completion of the rest of the TMP, the BLM will undertake a specific planning process for this area and will allow the use of existing routes within the boundary of this zone until individual routes are designated within this area.

Maps will be made available that show the network of existing routes. These maps will be updated on a yearly basis until the designation process is completed. Thereafter, updates to the maps will be made available online as changes are made to the network, and new maps will be published periodically, as needed.

Designation Process:

Routes will be designated on the ground with the assistance of user groups once thresholds for sensitive resource values (soils, wildlife, special status plants) have been determined, after any necessary NEPA process has been completed. The following steps will need to be completed in order to move forward with route designations:

1. Highlight key avoidance areas or areas where route reductions in density would be necessary in order to move toward achieving biologic, ecologic, and cultural resource objectives.
 - a. Close routes directly impacting sensitive areas.
2. Break Zone L into sub-zones and collect representative hill-slope and road erosion rates to run RHEM and WEPP models or similar model if technology improves (note that routes eliminated through step 1 would be included in this effort unless they were reclaimed prior to designation).
 - a. Identify sub-zones needing route reductions based on modeling results.
 - b. Identify zones where it would be appropriate for new routes to be added if other resource values and recreation objectives could also be achieved.
3. Inform user groups of the process for route designation and key resources that need to be protected (biology, soil, water, archaeology, and recreation experience).
 - a. Work with user groups to identify user needs and prioritize routes in Zone L.
 - b. Routes eliminated through step 1 would not be available routes for prioritization.
4. Priority routes identified by user groups that meet recreation objectives and do not conflict with resource values, and meet minimum BLM requirements for intended use would be designated.

- a. Maintenance on routes would be prioritized based on the intensity of degradation resulting from the route and by user group priority ranking.

Reclamation work for non-sustainable routes designated for closure would also be prioritized based on the intensity of degradation and to reduce confusion with open routes. Table 1, Route Designations in Miles by Alternative, summarizes the proposed route designations for motorized, Bicycle, horse, and foot travel by alternative. Detailed travel management zone maps that display each route's proposed designation by alternative are provided at <http://www.blm.gov/co/st/en/fo/gjfo/rmp/rmp.html>.

Additional Objectives to be used for Route Designation in Zone L

1. Meet Public Land Health Standards 1, 2, 3, 4, and 5
 - a. Standard 1: Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes.
 - b. 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.
 - c. 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.
 - d. 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.
 - e. 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.
2. Water
 - a. Manage to maintain or contribute to long term improvement of surface and groundwater quality.
 - b. Promote geomorphic balance.
 - c. Minimize salt and sediment production to "natural" background rates.
 - d. Preserve/promote soil productivity.
 - e. Preserve watershed function in capture, retention, and release of water in quality, quantity, and time to meet ecosystem and human needs.
3. Wildlife and Plants
 - a. Within Mule Deer Severe Winter Range and Pronghorn Antelope Winter Concentration area, reduce route density to less than or equal to 2 miles of road per square mile.
 - b. Ensure that Public Land Health Standards 3 for plant and animal communities, and 4 for Special Status and Threatened & Endangered species, are being met or moving towards meeting Standards.

4. Cultural

- a. To minimize ongoing or potential impacts to cultural sites that are eligible or potentially eligible for listing on the National Register of Historic Places (NRHP), close and/or re-route routes that are inside or pass through eligible or potentially eligible cultural sites, or identify mitigation necessary to protect sites
- b. To minimize the potential for vandalism or surface collection, reduce number of routes in proximity to known cultural sites, minimize impacts to site integrity of setting and feeling.
- c. To minimize the potential for impacts to sites, reduce density of routes in areas known to be of high expected cultural resource density or areas of high value to the cultural program or Tribes
- d. Use VRM and recreation (or management) objectives to minimize impacts to site integrity (maintaining the visual, audible, and setting characteristics of sites
- e. To minimize ongoing or potential impacts to historic trails identified as eligible or potentially eligible for listing on the NRHP, identify mitigation to protect the historic integrity of routes, if necessary.

5. Recreation

- a. Provide visitors with opportunities to participate in motorized OHV recreation (motorcycle, ATV, UTV, full-sized 4x4 vehicles) on a variety routes designated for different motorized uses (e.g., motorcycle, ATV/UTV, and full-size vehicles) that link the desert terrain on the north side of the Grand Valley from Grand Junction and Fruita to Rabbit Valley and the Utah Rims trails and provide multiple long-distance motorized loop opportunities.
- b. Minimize the negative interactions between users and livestock operations through route designation and future new route design; providing appropriate access for rangeland management.
- c. Promote positive user interactions between user groups; providing appropriate access for public and commercial operations.
- d. Ensure route connectivity between the North Desert ERMA and the Grand Valley OHV SRMA (open OHV area). Allow higher route density along the ERMA's interface with the Grand Valley OHV SRMA at 27 ¼ Road, with route density generally decreasing as the trail system extends to the northwest toward 25 Road and 21 Road.

**Bureau of Land Management
Grand Junction Field Office**

CRITERIA FOR THE PLACEMENT OF TRAILS

The following criteria are used to determine suitable locations for new trails and trail reroutes within the Grand Junction Field Office management area. This document utilizes terminology from the “Recommended Standardized Trail Terminology for Use in Colorado.” (COTI 2005)

These criteria are to be followed as guidelines. Not all of the criteria can be met on every segment of every trail. Their purpose is to help create sustainable, low maintenance trails that provide quality recreation experiences based on predetermined trail management objectives (TMOs). Specialty trails requiring higher maintenance may be allowed in appropriate locations.

1. Know and understand trail management objectives. TMO’s provide the framework for what the trail will look like, who will be using the trail, and how the trail will be managed. Different TMO’s may allow different applications of the criteria below.

2. Create loops and avoid dead end trails. All trails should begin and end at a trailhead or another trail. A well-planned stacked loop trail system offers recreationists a variety of trail options. Easier, shorter loops are arranged close to the trailhead, with longer, more challenging loops extending further beyond the trailhead. Occasionally, destination trails to a point of interest will require an out and back trail, but only if they cannot be reasonably incorporated into a loop.

3. Identify control points and use them to guide trail design and layout. Control points are specific places or features that influence where the trail goes. Basic control points include the beginning and end of the trail, property boundaries, intersections, drainage crossings, locations for turns, and other trails.

Positive control points are places where you want users to visit, including scenic overlooks, historic sites, waterfalls, rock outcroppings, lakes, rivers and other natural features or points of interest. If the trail does not incorporate these features, users will likely create unsustainable social trails to get to them.

Negative control points are places you want users to avoid, such as low-lying wet areas, flat ground, extremely steep cross slopes or cliffs, unstable soils, environmentally sensitive areas, sensitive archaeological sites, safety hazards, and private property.

Knowing these control points provides a design framework. Try to connect the positive control points while avoiding the negative control points.

4. Use cross slope and avoid flat ground whenever possible. The trail tread should generally run perpendicular to the cross slope and should utilize frequent grade reversals. This is the best way to keep water off the trail. Use curvilinear design principles to create a trail that follows the natural contours of the topography, sheds water, blends with the surrounding terrain, and provides fun recreation opportunities.

The following grade guidelines will help determine appropriate tread locations.

- The Half Rule: “A trail’s grade shouldn’t exceed half the grade of the hillside or sideslope (cross slope) that the trail traverses. If the grade does exceed half the sideslope, it’s considered a fall-line trail. Water will flow down a fall-line trail rather than run across it. For example, if you’re building across a hillside with a cross slope of 20 percent, the trail-tread grade should not exceed 10 percent.” (IMBA 2004) Steeper cross slopes allow more flexibility for sustainable tread grades while flat or low angle cross slopes can be problematic. There is an upper limit to this rule. Sustaining a 24 percent tread grade, even on a 50 percent cross slope is unlikely. Additionally, trail segments may break this rule on durable tread surfaces such as solid rock.
- The Ten Percent Average Guideline: The average trail grade over the length of the trail should be 10 percent or less for greatest sustainability. Short sections of the trail may exceed this, but the overall grade should remain at 10 percent or less.
- Maximum Sustainable Grade: This is the upper grade limit for those short trail segments that push the limits of the previous two guidelines. It is determined by a site-specific analysis based on TMO’s, environmental conditions, and observations of existing trails – what’s working, and what’s not?
- Grade Reversals: Frequent changes in the direction of tread grade (gentle up and down undulations) will ensure that water is forced off the trail at frequent intervals.

5. Locate trails in stable soils. Avoid clays, deep loam and soils that do not drain rapidly. Consider season of use and type of use. A trail on a south aspect will have greater usability and sustainability for winter use. The capabilities of motorized vehicles to function in wet/muddy conditions make it imperative to avoid unstable or poorly drained soils. Trails that are less likely to be used when wet may be located in less-desirable soils if necessary. In western Colorado’s arid environment, the best soil conditions for trails are those with high rock content. Utilize slick rock for trail tread when possible. Sand is acceptable in dry washes, but otherwise avoid sand.

6. Drainage crossings are key control points and should be selected carefully. Consider both the trail’s impact on the drainage (erosion and sedimentation), and the drainage’s impact on the trail (changing tread surface, water channeling onto trail). The trail should descend into and climb out of the drainage to prevent water from flowing down the trail. Avoid long or steep entries into drainages. Design grade reversals into the trail on each side of the approach to minimize water and sediment entering from the trail. Look for drainage crossings on rock.

7. Dry washes can be excellent travel ways. They are well defined, contain noise, and are periodically resurfaced by flowing water. As long as the wash does not support riparian vegetation and has no major safety problems, like water falls, they are well suited to be part of a recreational trail system.

8. Avoid switchbacks. Switchbacks are difficult, time-consuming, and expensive to construct, and require regular maintenance. Users often cut them, causing avoidable impacts. Utilizing curvilinear design principles eliminates the need for most switchbacks. Climbing turns are easier to construct and maintain and utilize natural terrain features (benches, knolls, rock outcrops) to change the direction of a trail.

9. Avoid ridge tops. Ridge tops are often primary transportation corridors for wildlife, and were often used by Native Americans as travel routes. Noise from ridge top trails is broadcast over a wide area. Locate trails on side hills, off ridge tops, using ridges and watersheds as natural sound barriers to isolate noise.

10. Use vegetation and other natural features to conceal the trail and absorb noise. This can be difficult in a desert environment. Try to minimize the visual impact of the trail by following natural transitions in vegetation or soil type. A trail near the base of a sideslope or on rimrock is usually less visible than a mid-slope trail. Denser vegetation will hide a trail, lessen noise transmission, and can dissipate the energy of falling raindrops on the bare soil of the trail tread.

11. Carefully design intersections to avoid safety problems. When locating a bicycle or motorized vehicle trail be aware of sighting distance and sight lines. Collisions can be avoided if riders can see each other. Avoid four way intersections. Offsetting the cross traffic helps reduce speeds and reduces the risk of collisions.

Sources:

Off Highway Motorcycle and ATV Trails: Wernex, 2nd edition, American Motorcycle Assoc. 1994

Off Highway Vehicle Trail and Road Grading Equipment, Vachowski, Maier, USDA Forest Service Missoula Technology and development Center 1998 Doc# 7E72A49

Mountain Bike Trails: Techniques for design, construction and Maintenance, McCoy Stoner, USDA Forest Service, Missoula Technology and Development Center

Recommended Standardized Trail Terminology for Use in Colorado, Colorado Outdoor Training Initiative (COTI). 2005

Tractor Techniques for Trailbed restoration, Hamilton, USDA Forest Service 1994

Trails 2000, Lockwood USDA Forest Service 1994

Trail Construction and Maintenance Handbook, Hesselbarth, Vachowski, USDA Forest Service (4E42A25-Trail Notebook) 2004

Trail Solutions, IMBA's Guide to Building Sweet Singletrack, International Mountain Bicycling Association (IMBA) 2004.

USDA Forest Service Travel Management Handbook, FS 2309.18

COLORADO NATURAL RESOURCE GROUP

TRAVEL MANAGEMENT SIGNS FOR PUBLIC LANDS IN COLORADO

The following Travel Management Sign guidance has been developed by the Colorado Natural Resource Group (CNRG) to promote consistent seamless travel management signage for public land users in the State of Colorado. Promoting safe and responsible use and promoting and supporting coordination among all agencies and non-government partners is a goal of the CNRG.

Colorado Division of Wildlife

Russell George 12/18/03
Russell George, Director Date

Colorado State Parks and Outdoor Recreation

Lyle Lavery 1-6-04
Lyle Lavery, Director Date

Colorado State Forest Service

Jim Hubbard 1-28-04
Jim Hubbard, State Forester Date

Bureau of Land Management

Ron Wenker 12/4/03
Ron Wenker, State Director Date

National Park Service

Ron Everhart 12/9/03
Ron Everhart, Colorado State Director Date

US Forest Service

Jim Bedwell 1/12/04
Jim Bedwell, Colorado Lead Forest Supervisor Date

09/30/02

Travel Management Signs for Public Lands in Colorado

Background

Four travel management signs were developed at the Colorado Natural Resource Group (CNRG) sponsored 1998 travel management conference held in Denver on Sept 11-12, 1998. Those signs include a Trail sign, an Area Open sign, a Travel Restricted sign and a Road Use sign. On June 15, 2001 an interagency implementation group met and recommended an additional Road Use sign to be placed on roads not intended for use by standard passenger cars. This recommendation was supported and approved by the CNRG. The following descriptions provide direction on the installation and use of these approved travel management signs.

Standards For All Signs

These signs are intended to inform the traveler on what the travel management direction is for an area, road or trail.

Color:

Color on the signs will be white on brown.

Symbols:

Eight federal recreation symbols are used on these signs. To ensure consistency the symbols are as follows: hiker (RL-100); cross-country skier (RS-040); horse (RL-110); bicycle (RL-090); trail bike, i.e., trail motorcycle (RL-150); all-terrain vehicle (RL-170); snowmobile (RS-070); and high clearance vehicle (RL-140). There will be no additions or substitutions. Always use international symbols, and ensure that they are the current symbols.

Symbols will be reflectorized.

A red slash across a symbol will be used to display closures. No other color than red should be used for the slash.

Consistency is the key to the success of these signs. Whenever symbols are used, the order of placement will be: hiker, cross-country skier, horse, bicycle, trail motorcycle, ATV, snowmobile and high clearance vehicle. Any of the symbols may be eliminated when appropriate, but the remaining order will be maintained.

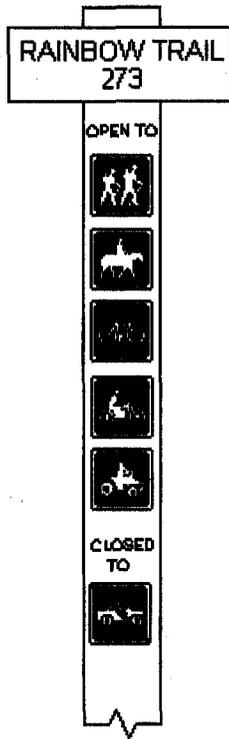
Material:

Travel management signs will not be constructed on paper or poster type materials.

Fonts

The fonts will be Gothic C, standard highway fonts. The lettering size will not be smaller than one half inch.

Trail Sign



Standard Format

Travel Management signage for trails is critical in today's world. The trail users want to know what modes of travel are allowed on the trail they are ready to use, as well as what modes of travel are prohibited on that trail.

Trailhead Signage

All trailheads should have travel management signing regardless of the level of development at the trailhead. At a minimum, the user should see the name and number of the trail, with travel management information clearly displayed as a sign assembly. See diagram at left.

The trail name and trail number should read horizontally. The travel management should be displayed vertically. A destination is optional for the trail sign. Follow responsible agency's manual direction on proper wording, abbreviations, and placement of text for direction signs.

Placement of International Symbols

To show the travel modes allowed, use the words "Open To" and show the international symbols below. Display the modes of travel that are prohibited using the words "Closed to" with a red slash across the international symbol below.

Symbol Size

The size of symbols for trail usage is 3x3 inches for each symbol.

Agency Logos

The agency logo(s) may be placed at the bottom of the vertical travel management sign. It can be smaller than the 3x3 international symbol. Consider keeping it white on brown.

Placement of Travel Management Signs

Travel management signing need not be on every trail sign along the trail corridor. Travel management signs should be placed at the trailhead, and at trail junctions where travel management is changing, or needs reinforcement.

Travel Restricted Area Sign



Standard Format

The Travel Restricted Area sign is intended to be used where a traveler crosses into a travel restricted area from an open area. This does not include wilderness areas. This sign is intended to alert the traveler that off road travel is prohibited and there may be some additional restrictions on certain routes.

Install this sign where it is safe for traffic to stop to view the message.

The Trail sign and Road Use sign will be used to designate routes. All other signing alternatives will no longer be used.

Symbols

Only the modes of travel that are restricted should be shown on this sign.

Allowable Alterations

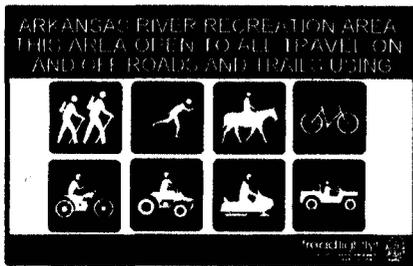
The word "Designated" may be changed to "Established" while area management prescriptions are being changed from "open to off-road travel" to "restricted to roads and trails". When the roads and trails that will be retained as the managed transportation system have been identified the word "Established" should be changed back to "Designated." This is intended to be an interim policy to allow for the orderly transition between "open to off-road" to "restricted to route" policy.

Lettering

Minimum size of lettering will be one inch.

Minimum lettering size for "TRAVEL RESTRICTED AREA" wording will be one half inch larger than all other lettering.

Area Open Sign



Standard Format

The "OPEN AREA" sign is used for specific areas with identifiable boundaries in which travel is allowed both on and off roads. An area identification is optional. If the area name is desired, place the name at the top of the sign. The message "THIS AREA OPEN TO ALL TRAVEL ON AND OFF ROADS AND TRAILS USING" is to be placed below the name of the area and above the recreation symbols. Agency logos and/or names are to be placed below the recreation symbols. Every sign should include at least one agency identification of some sort so the public knows where questions and comments can be directed. Areas managed by multiple agencies may show only agency logos across the bottom of the sign.

In most cases this sign would be installed at all access points into a specified open area.

Road Use Sign



Standard Format

These signs are travel management signs and are not intended to replace road name or road number signs. Where there are travel restrictions, the road name and number may be included on these signs.



Road Use signs are used to identify “designated routes” through a travel restricted area. They also inform the traveler of the modes of travel allowed on the route. The sign may contain several messages.

Options – Horizontal Display

This sign is appropriate on roads intended for use by standard passenger cars, or on lower standard roads where the complexity of the travel management message (i.e., seasonal closures) requires the use of horizontal display. There are 3 options for this sign (see diagrams at left). They are:



OPEN TO: is intended to show, using symbols, the modes of travel allowed on the road. Display all the symbols under the words “Open To.”

CLOSED TO: is intended to show, using symbols, the modes of travel that are not allowed on the road. This sign will first show the modes of travel that *are* allowed on the road under the words “Open To”. Below these, the modes of travel that are prohibited will be shown with red-slashed symbols under the words “Closed To.” The reason for the closure is optional.

SEASONAL CLOSURE (with dates): This sign will first show the modes of travel that *are* allowed on the road under the words “Open To”. Below these, the modes of travel that are restricted will be shown with red-slashed symbols under the words “Seasonal Closure”. The dates of the restricted travel will be shown below the symbols.



FR 17-1
18" X 18"
(w/green circle)

OHV Sign

Road Identification

The road name is not required. If the road name is desired, it will be placed at the top of the sign along with the number.

Symbols

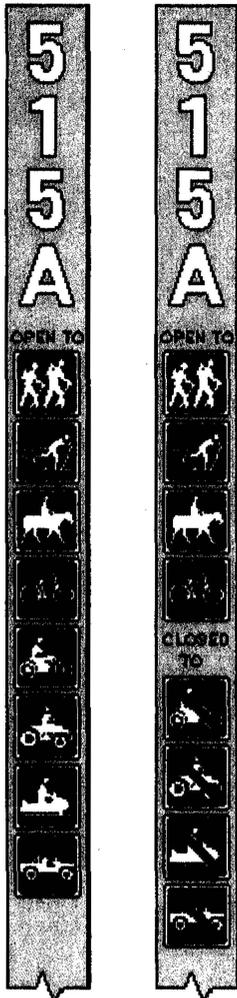
The minimum symbol size will be 3” x 3”.

ATV Usage

If the only change of use on the road is allowing ATV’s the open OHV sign can be used in place of the Road Use sign.

Options – Vertical Display

This sign is appropriate on roads not intended for use by standard passenger cars. There are two options for this sign. They are:



OPEN TO: is intended to show, using symbols, the modes of travel allowed on the road. Display all the symbols under the words “Open To.”

CLOSED TO: is intended to show, using symbols, the modes of travel that are not allowed on the road. This sign will first show the modes of travel that *are* allowed on the road under the words “Open To”. Below these, the modes of travel that are prohibited will be shown with red-slashed symbols under the words “Closed To.” The reason for the closure is optional.

SEASONAL CLOSURE (with dates): The complexity of the travel management under this scenario requires the use of the horizontal display to convey the entire necessary message. Refer to the direction for horizontal display above.

Road Identification

The road name is not appropriate on the vertical display. The number will be placed vertically at the top of the sign to distinguish these routes from trails.

Symbols

The minimum symbol size will be 3” x 3”.

Agency Logos

The agency logo(s) may be placed at the bottom of the vertical display. It can be smaller than the 3x3 international symbol. Consider keeping it white on brown.

**Addendum 1 to the Colorado Protocol:
Section 106 Requirements For
Comprehensive Travel and Transportation Management Planning**

Background

As part of its comprehensive travel and transportation management planning program (CTTM), the Bureau of Land Management (BLM) is required to designate travel management routes and areas on public lands as open, limited, or closed to off-highway vehicle (OHV) use (as required by Executive Order 11644 ((as amended by Executive Order 11989) and regulation (43 CFR Part 8340)) and other travel use in every land use plan (LUP). CTTM planning considers both motorized and non-motorized travel, such as, OHV's, horseback riding, biking, and hiking.

Absent designation, routes and areas are subject to uncontrolled travel. Designation of routes and travel network areas generally has the beneficial effect of controlling impacts of travel on public lands, including on cultural resources. Designation provides a purposefully designed and clearly delineated travel network, reduces the potential for user caused route proliferation, and facilitates travel management and law enforcement. 43 CFR Part 8340 authorizes the closure of routes and areas to the types of OHV travel that have caused or may cause adverse effects to cultural resources. In addition, route designations prohibit indiscriminate cross-country travel that may cause adverse impacts to cultural resources.

Purpose

The closure and reduction of unmanaged cross-country travel is intended to protect cultural resources across a broad landscape. It is in the interest of cultural resource protection to complete the designation process as soon as possible. Most existing routes are user-created and have not been inventoried for cultural resources and the effects to them are not well documented. Because of the large number of existing and new routes and areas that will be designated by each planning effort, a phased identification effort is needed to complete BLM Section 106 responsibilities pursuant to 36 CFR 800.4 (b)(2). This phased identification effort is integrated into three steps of CMMT: planning, route development, and route maintenance.

This Addendum replaces two Programmatic Agreements (PA's) regarding travel management in the Royal Gorge Field Office (RGFO) and the Kremmling Field Office (KFO). The signatories of the PA for the RGFO includes the BLM, Colorado State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP) with the Comanche as a concurring party initiated on June 3, 2003. The PA for the KFO includes the BLM and the SHPO with the Southern Ute as a concurring party initiated on January 11, 2005. Both PA's will be terminated on the effective date of this Addendum following the procedures in these agreements. BLM will notify all signatories of the PA's of the termination and the implementation of this Addendum.

Development of Planning Alternatives:

Selection of specific route networks and imposition of other use limitations, will avoid impacts on cultural resources where possible. In accordance with 43 CFR 8342, existing cultural resource information must be considered when choosing among the range of alternatives for the design of a planning area travel system, including the potential impacts on cultural resources when determining whether each of the routes or areas in a planning area should be designated as open, limited, or closed. Eligible and potentially eligible (need data) cultural resource sites may be protected through rerouting, excavation of archaeological resources, limitations on vehicle type and time or season of travel, closure, and other less common mitigation strategies. Evaluation of routes or areas to be designated as closed to protect cultural resources should be based on existing inventory information and should not be postponed until additional information is acquired.

Plan Development, Maintenance and Modification

A BLM cultural resource specialist will be involved *throughout* the planning process and on any team working on periodic plan maintenance or on a plan amendment. Cultural resource inventory and monitoring information, gathered after a plan is approved, maintained, or amended, should be used to review and update the route network as necessary in any plan maintenance or plan amendment process.

Compliance with Section 106

Designation of routes and areas are considered undertakings for the purposes of Section 106 of the National Historic Preservation Act (NHPA). The signing of existing routes – does not include the construction of kiosks or other structures being used to hold information – is not considered an undertaking under NHPA. Route and area designation is considered a non-routine undertaking under the Colorado Protocol because of the magnitude and scope of this action and requires an addendum to the Protocol to address these requirements. Given the nature and potential adverse effects to historic properties from the designation of routes and areas in planning documents, Section 106 compliance for these undertakings will be accomplished as described below.

Area of Potential Effect (APE)

The APE includes a corridor that extends at least 50 feet on both sides of the centerline of the road or trail. A 300-foot use corridor will be used when parking, camping and staging areas are allowed adjacent to roads. Additional areas may be inventoried when the cultural resource specialist believes alterations in trails or roads, or changes in their use, may result in indirect impacts, such as vandalism, to cultural resources. Nickens, Tucker and Larralde (1981), *A Survey of Vandalism To Archaeological Resources in Southwestern Colorado*, provides useful information about the potential for vandalism and other indirect impacts to cultural resources from road access. This publication is accessible at http://www.blm.gov/heritage/adventures/research/StatePages/CO_pubs.html

Inventory Requirements

Three principal guidelines will be followed:

- Proposed designations that allow continued use of existing routes and keep an open area open may have adverse effects to cultural resources. When the BLM cultural resource specialist determines that existing information reveals areas where adverse effects to cultural resources have occurred, are occurring, or have a reasonable expectation of occurring from travel, some degree of Class III inventory in the APE will be required.
- Proposed designations that impose new limitations on an existing route, close an open area or travel route and keep a closed area closed are unlikely to adversely affect cultural resources. No further field inventory of these routes and areas is required.
- Proposed designations of new routes or areas as open to travel are subject to Section 106 compliance in the same manner as any undertaking. Class III inventory in the APE is required **prior to designation** of new routes or areas as open to travel, and for new locations proposed as camping areas, staging areas or similar areas of concentrated travel.

Phases of Identification:

- Phase 1: Planning: This phase primarily involves using existing information to identify the field inventory needs for designated routes or areas and for route closures in the APE. The plan implementation schedule will identify field inventory needs, needed funding and the schedule of completion. The plan will reference this addendum.
- Phase 2: Route development: This phase involves the Class III inventory of most designated routes scheduled for inventory in the APE.
- Phase 3: Route maintenance: This phase involves the Class III inventory of the lowest priority designated routes scheduled for inventory in the APE.

Existing cultural resource information: Every new, revised and amended LUP must incorporate sufficient information to identify the nature and importance of all cultural resources known or expected in the LUP area. Where this information is lacking or out of date, the LUP Preparation Plan should include provision for developing or revising this information as part of the overall plan development, revision, or amendment process. Cultural resource information from the planning area's Class I overview, or existing cultural resources records search and literature review, will be considered when choosing among the range of possibilities in designing a planning area travel system for proposed designation.

The records search and literature review will include the field office and the SHPO database and records, information from the most recent regional overview for the field

office, the statewide context documents, and knowledge of the cultural resource specialist.

Field Inventory: Field inventory requirements, priorities and strategies will vary depending on the nature and potential effect of the proposed travel activity and associated use levels (See Definition section) and the expected density and nature of cultural resources based on existing cultural resource information.

Federal interstate highways and State highways (primary and secondary) are not included here because Section 106 actions are the responsibility of the Federal Highway Administration, as implemented by the Colorado State Department of Transportation.

Existing routes that have been regularly maintained (Types 3A-C) do not require field inventory. [See Definitions section]

Existing routes that have not been regularly maintained (Types 4-6F) require further field inventory. [See Definitions section]

Class II inventory will be conducted on designated routes and areas in the APE that allow continued use of an existing route and keep an open area open. Class II inventory will require field visitation of known "need data" and eligible cultural resources located within or immediately adjacent to existing routes. Also, Class III inventory will be conducted on an existing route or routes in the APE that best represents the topographical/vegetation variation in the travel management area. Inventory will include the documentation of impacts from travel and the need for further Class III inventory.

Class III field inventory will be conducted in the APE for the following undertakings: (1) some designated routes and areas that allow continued use of an existing route and keep an open area open based on the results of Class II inventory, (2) all new construction of routes and the maintenance of route types 4-6F located either in the footprint or outside the footprint, such as, drainage pitch-out, culvert replacement, cattle-guard placement, facility maintenance, and restoration, and (3) route closure actions that disturb the ground both in and outside the existing route footprint. Closure actions that only impact the disturbed surface, such as hand-brushing actions, are considered to have no effect on cultural resources. Class III inventory will follow the standards identified in the Colorado Handbook of Guidelines and Procedures for Identification, Evaluation, and Mitigation of Cultural Resources – Chapter 3 (1998) attached to the Colorado Protocol.

Adverse Effects

For all adverse effects to historic properties, the cultural resource specialist will follow the evaluation, treatment, mitigation, and reporting procedures outlined in the Colorado Protocol.

Monitoring

Areas and routes that are designated open to travel in the APE will be monitored for impacts to resources, and a BLM cultural resource specialist will be included on the team

responsible for developing and implementing the monitoring standards and process. The monitoring standards and process will consider the intensity and type of travel, the density and sensitivity of cultural resources, and the potential for adverse indirect and cumulative impacts, including route proliferation. When monitoring identifies adverse effects to cultural resources from route or area designation, the decision record should make it clear which mitigation actions will be taken, and when they should be taken, in order to minimize additional environmental analysis required prior to implementation.

Monitoring will be based on the schedule identified in each plan. The BLM cultural resource specialist, as part of the monitoring team, will identify an appropriate monitoring schedule for cultural resources. The monitoring results will be reported to the SHPO in the annual report required under the Protocol. Any changes in monitoring will be identified and agreed to at the annual meeting with the SHPO on the Protocol and implemented upon an agreed time frame.

Emergencies

All travel management is subject to prohibitions against operation of vehicles on public lands in a reckless, careless, or negligent manner; and in excess of established speeds or in a manner causing or likely to cause undue damage to cultural and other resources. Where an authorized officer determines that OHVs are causing or likely to cause adverse effects to cultural resources, 43 CFR 8342 requires immediate closure to the type or types of vehicles causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence. Field inventory is not required prior to the emergency closure.

The Authorized Officer will notify the SHPO and other consulting parties by telephone within 48 hours and identify the steps being taken to address the emergency, describe the discovered cultural resource and its significance, and describe the emergency work and potential adverse effects on the discovery. Consultation will begin as soon as possible after notification to determine what mitigation measures are needed. Within 30 days following this notification, the Authorized Officer will document to the SHPO and consulting parties the actions taken to minimize effects and the work's present status. The results of mitigation will be fully documented in reports, site forms and photographs meeting the requirements in the Protocol. The documentation will be forwarded to the SHPO in accordance with the timetables established in Section X of the Protocol.

Discoveries

Discoveries may be identified during implementation and monitoring and will follow the procedures identified in Section X of the Colorado Protocol. Work in the immediate area of the discovery will cease until the discovery has been evaluated pursuant to Section VII of the Colorado Protocol. This may require the closure of the route until mitigation is completed. Within 48 hours of the discovery the SHPO and consulting parties will be notified of the discovery, and consultation will begin to determine an appropriate mitigation measure. BLM will ensure that the discovery is protected from further disturbance until mitigation is completed.

Pursuant to 43CFR10.4(g), the BLM authorized officer must be notified, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43CFR10.4 (c) and (d), activities must stop in the vicinity of the discovery and the discovery must be protected for 30 days or until notified to proceed by the authorized officer. All reasonable measures will be taken to resolve any issues regarding affiliation and disposition of discovered remains within a 30 calendar day period beginning with the agency certification of initial notification.

For Native American human remains and associated cultural items discovered on Federal land, the BLM will meet the requirements of the Native American Graves Protection and Repatriation Act (NAGPRA) for all inadvertent discoveries and discovery situations on a case-by-case basis in accordance with 43 CFR 10. For all other human remains and associated artifacts, the procedures identified in the 1989 Guidelines, Colorado Inadvertent Burial Discovery Procedures will be followed.

Consultation

Consultation with the SHPO and affected Tribes is required for all planning efforts and, as necessary, with other consulting parties. The SHPO will be consulted during planning and invited to participate in the development and implementation of identification, monitoring, and treatment options. The planning team will consult with potentially affected Tribes to solicit concerns relative to planning options and to ensure that appropriate identification and treatment options are developed and implemented during or after the planning effort. Consistent with BLM Manual 8120 and Handbook H-8120-1, additional consultation may be required for specific planning decisions and project implementation.

Funding

Route and area designation is an undertaking initiated by the planning program. The cultural resource program provides administrative support from the BLM cultural resource specialist during the planning effort. This work includes conducting the needed records and literature search and providing the input for all National Environmental Policy Act documentation. The planning program can assist with costs associated with consultation and Class I overviews.

Benefiting programs are expected to fund most cultural resource needs during development and maintenance phases to accomplish the field inventory and other needed work to satisfy BLMs requirements under Section 106 of NHPA and the Colorado Protocol. The cultural resource program can fund cultural resource work in areas and on sites that are identified in the State Strategic Plan as high priority for proactive inventory and for protection of "at-risk" cultural resources. These accomplishments are reportable under the cultural resource program elements identified in the Management Information System database.

Definitions

Route types (based on typology used by the engineering program):

[1]-[2]: Federal interstate highways, and State highways (primary and secondary).

[3A-3B]: BLM regularly maintained road (light-duty/constructed/gravel and paved).

[3C]: BLM regularly maintained road (light-duty/constructed/dirt).

[4]: BLM not-regularly-maintained road (primitive/constructed).

[5]: BLM not-regularly-maintained road (primitive/user-created).

[6A-B]: BLM motorized trail (single and double track/ATV, motorcycles).

[6C-F]: BLM non-motorized road and trail (single track/foot, horse, mountain bike).

[7]: BLM closed road

Use Levels (based on terms commonly used in travel management planning):

Decreased Use: This reduces the current use level by lowering the number and density of existing routes.

Maintain Current Use: This maintains the existing number and density of existing routes.

Increased Use: This may include a low increase (a small increase in the number of routes and density) or a high increase (a high number of routes and density).

BUREAU OF LAND MANAGEMENT



Linda M. Anafia, Deputy State Director

10/26/08

Date

COLORADO STATE HISTORIC PRESERVATION OFFICER



Georgianna Contiguglia, State Historic Preservation Officer

October 19, 2008

Date

Travel Management Route Designation Recommendation Process Attendees (2010)

Name	3/15	3/16	3/17	3/18	3/22	3/23	3/24	3/25	4/05	4/06	4/07	4/08	4/12	4/13	4/14	4/15	4/20	5/13
Grand Junction Field Office Staff																		
Michelle Bailey			X	X	X	X			X	X	X		X	X				
Eric Boik	X								X			X	X		X	X		
Terry Bridgman	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X		
Julia Christiansen										X								
Doug Diekman	X	X	X		X	X	X						X	X		X		X
Nate Dieterich	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Jim Dollerschell	X	X	X	X		X	X	X	X		X	X	X	X		X		X
Robert Fowler		X	X	X	X	X	X		X	X						X		X
Scott Gerwe					X	X						X	X					X
Dan Gourley	X	X	X	X	X	X	X		X	X	X	X	X	X	X			X
Chris Ham		X	X				X		X				X					X
Bob Hartman	X	X	X	X		X								X		X	X	
Mike Jones	X	X																
Alan Kraus													X					
Robin Lacy	X	X	X			X												X
Aline LaForge			X				X	X										
Alissa Leavitt-Reynolds	X	X	X	X	X				X	X			X	X		X		X
Anna Lincoln	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Ken Lloyd		X				X					X							
Jacob Martin	X	X	X	X		X	X			X	X							X

GJFO RMP

Attachment H

TRAVEL MANAGEMENT

H. CULTURAL RESOURCES

BLM is satisfying the requirements of Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470f, for the travel and transportation management decisions relating to the Grand Junction Field Office Resource Management Plan pursuant to Addendum 1 to the Colorado State Protocol Agreement (Protocol) between the Colorado State Historic Preservation Officer (SHPO) and BLM. The Protocol, which supplements the National Programmatic Agreement between BLM, Advisory Council on Historic Preservation (ACHP), and the National Conference of State Historic Preservation Officers, adopts an alternate procedure for compliance with Section 106 of the NHPA as allowed under 36 C.F.R. § 800.14(b). Addendum 1 recognizes that BLM's designation of routes and areas is an undertaking triggering compliance with Section 106 of the NHPA, and that BLM must complete the Section 106 requirements as part of route designation during the planning process. The Addendum specifically outlines how BLM will comply with the requirements for Section 106 for Comprehensive Travel and Transportation Management Planning. As described in the Addendum, "selection of specific route networks and imposition of other use limitations, will avoid impacts on cultural resources where possible. In accordance with 43 CFR 8342, existing cultural resource information must be considered when choosing among the range of alternatives for the design of a planning area travel system, including the potential impacts on cultural resource when determining whether each of the routes or areas in a planning area should be designated as open, limited, or closed." During the designation process, existing cultural resource information is considered when choosing among the range of alternatives for the design of a planning area travel system. A large number of existing routes and areas are designated in these planning efforts (Land Use Plans and Resource Management Plans). "Designation provides a purposefully designed and clearly delineated travel network, reduces the potential for user caused route proliferation, and facilitates travel management law enforcement", all of which are helpful in reducing adverse effects to historic properties.

The steps set forth in the Addendum establish a phased process for the identification, evaluation, and resolution of potential adverse effects to historic properties eligible for or listed on the National Register of Historic Places. The area of potential effect (APE) that is subject to inventory will be determined by the cultural resource specialist as defined by 36 CFR 800.16(d). When defining the APE, the BLM will consider potential direct, indirect, and cumulative effects to historic properties. The Addendum's phased process for identification is broken down into three steps: 1) planning; 2) route development; and 3) route maintenance. During the planning phase, existing cultural resource data obtained from the most recent Class 1 overview of the planning area (Grand River Institute 2011) along with known areas of higher use or concentration of travel will be used to determine priority areas for Class III cultural resource inventory. The SHPO, interested Native American Tribes, and other consulting parties are consulted during planning and invited to participate in the development and implementation of

identification, monitoring, and treatment options according to the Colorado State Protocol in association with the National Programmatic Agreement. During the route development phase when Class III inventory is being completed, if BLM identifies historic properties that are eligible for or listed on the National Register of Historic Places that are affected, BLM will identify ways to avoid, minimize or mitigate such adverse effects, and outline treatment procedures. The types of avoidance, minimization or mitigation may include fencing, site testing or excavation, signing, route realignment, or possibly route limitation or closure. The third phase focuses on conducting Class III inventories, as necessary, for those areas identified during the planning phase as being the lowest priority inventory areas with designated routes.

For the GJFO RMP travel and transportation management planning process, BLM has identified existing routes throughout the field office and examined the routes to determine appropriate designation based on public need and known natural and cultural resource concerns. BLM utilized current cultural resource inventories and assessments to determine potential cultural resource concerns on a route-by-route basis. The designated routes identify cultural resource concerns along with any other issues or rationale for the route designation, which are reflected in the Route Designation Reports. During the GJFO RMP designation process, the type of use on 402 routes was changed based partially or completely on cultural resource concerns. BLM has withheld from public disclosure sensitive cultural resources associated with routes even though BLM considered such information during the designation process. During the RMP phase, the GJFO consulted with the SHPO and interested Native American tribes and incorporated the comments received into our Proposed RMP. Once the RMP is finalized the GJFO will move into the phased identification process to determine priority areas for Class III cultural resource inventory. A priority list of designated routes that require Class III cultural resource inventory will be completed based on the implementation plan and implementation priorities. The remaining phases will follow the steps of the Addendum as described above. For those routes that BLM determines may have adverse effects impacts on cultural resources eligible for or listed in the National Register of Historic Places, the GJFO will consult with the SHPO, interested Native American tribes, and other interested parties to determine means to avoid, minimize or mitigate such adverse effects on a case-by-case basis.