

ENVIRONMENTAL ASSESSMENT

RED CANYON TRAVEL MANAGEMENT PROJECT

USDA Forest Service
Norwood Ranger District
Grand Mesa, Uncompahgre, Gunnison National Forests
Montrose County, Colorado

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Table Of Contents

Chapter 1: Introduction

Document Organization	3
Project Area	4
Background	4
Decision Framework	5
Purpose and Need	5
Proposed Action	6
Public Involvement	7
Issues	9
Cumulative Actions Considered in the Analysis	10

Chapter 2: Alternatives, Including the Proposed Action

Consistency With Forest Plan, Laws, Regulations, Policies, and Other Direction	11
Alternatives	16
Alternative 1	17
Alternative 2	17
Alternative 3 – Proposed Action	19
Alternative 4	22
Project Design Criteria	24
Comparison of Alternatives	25
Alternatives Considered But Eliminated From Detailed Analysis	27

Chapter 3: Environmental Consequences

Recreation & Travel Management	29
Rangeland Resources	34
Fish and Wildlife	36
Soils and Watershed	43
Heritage Resources	48
Economic Efficiency	48

Chapter 4: Agencies and Persons Consulted

Forest Service Interdisciplinary Team	50
Federal, State, and Local Agencies	50
Others	50

Chapter 5: Maps and References

51

Chapter 1: Introduction

DOCUMENT ORGANIZATION

This Environmental Assessment (EA) documents the analysis of the potential environmental effects of implementing the 2002 Record Of Decision for the Uncompahgre National Forest Travel Plan within the project area referred to as Red Canyon. In compliance with the National Environmental Policy Act (NEPA), the EA addresses the direct, indirect, and cumulative environmental impacts that may result from implementation of the Proposed Action or any Alternatives.

The information contained in this EA will allow the District Ranger to make an informed decision about how to best meet the stated purpose and need for action. The resulting decision will be documented in a Decision Notice when the environmental review process is completed.

- Chapter 1: This chapter provides an overview of the legal and administrative parameters including the purpose and need for action. It also documents the public involvement process used to identify issues, concerns, and opportunities associated with the Proposed Action. The comments from public scoping were used by the project Interdisciplinary Team to help identify the significant issues and develop a full range of alternatives.
- Chapter 2: This chapter provides a more detailed description of the Proposed Action as well as alternative methods for achieving the stated purpose and need for the project. These alternatives were developed based on significant issues raised by the public and other agencies. This chapter also includes a list of design criteria to be used for project implementation.
- Chapter 3: This chapter describes the environmental effects of implementing the Proposed Action and the other Alternatives. The chapter is organized by environmental and social resources that are present and potentially affected by the Proposed Action and the other Alternatives. The Baseline alternative is used as the reference point for evaluation of each alternative.
- Chapter 4: This chapter provides a list of preparers and agencies consulted during the development of the environmental assessment.
- Chapter 5: This chapter provides various maps and other resource data referenced in the environmental assessment.

Additional documentation, including more detailed analyses of project-area resources, may be found in the project planning record located at the Norwood Ranger District Office in Norwood, Colorado.

PROJECT AREA

The boundaries of the project area are defined by Old Highway 90 on the west, the Divide road on the north, Little Red Canyon on the east, and the Hanks Valley/Old Highway 90 spur roads on the south (see project map). The project area includes National Forest system lands within the Red Canyon, Little Red Canyon, and States Draw area of the Uncompahgre Plateau. One 40-acre parcel of private land is located within the project area, and other parcels of private land are located adjacent to the project area. The project area lies entirely within Montrose County, Colorado.

BACKGROUND

In March of 2002 the Grand Mesa, Uncompahgre, and Gunnison (GMUG) National Forests completed a six-year process of public involvement and analysis to revise the Travel Plan for the Uncompahgre National Forest. Travel management decisions were made for the Forest at two levels. The first level addressed area-wide uses during the summer and winter. For example, all motorized and mechanized travel in the summer is now restricted to designated routes. The second level addressed route-specific decisions of what routes would be designated and maintained for public use, and what uses are allowed on those designated routes. Seasonal restrictions also apply to certain motorized and mechanized routes on the Forest to protect natural resources and to prevent physical damage to selected Forest roads.

Travel Management decisions on a large geographic area focus on the designation of allowable uses on specific routes and/or areas. Although it provides a baseline for future work on specific areas and routes, the decision does not include any substantial ground disturbing activities. Levels of treatment for decommissioning activities of transportation facilities fall into varying levels:

- Level 1 – Leave as is, do nothing on the ground.
- Level 2 – Install signs – “Facility Closed”.
- Level 3 – Natural Barricades. Camouflage the road template by placing slash on the road surface or dropping small trees to impede traffic.
- Level 4 – Physical Barricades. Permanent steel gates, buck and pole fences, rock blockades, or planting trees.
- Level 5 – Rip and Seed. Constructing earth barricades and water bars. Seed with native species. No re-contouring of the road prism.
- Level 6 – Re-contouring road prism (slopes and shoulders) and seed with native species.
- Level 7 – Removal of cross drains (culverts, rolling dips) and unstable fills.
- Level 8 – Removal of stream crossing structures (culverts).

Area-specific Travel Management decisions and treatment levels 1-4 generally do not require additional environmental analysis to implement. Even though an additional NEPA decision document is not required, those treatments are carried out in accordance with Forest Service specifications and designs to avoid environmental impacts.

Treatment levels 5-8 involve ground-disturbing activities that will require an additional site-specific NEPA decision document to identify the level of decommissioning necessary to implement the Travel Plan Record Of Decision (ROD) and to provide the project design criteria necessary to avoid adverse environmental impacts.

All levels of treatment and site-specific Area travel restrictions included in the 2002 Travel Plan ROD that are applicable to the Red Canyon project area are included in this Environmental Assessment to provide a complete analysis of the proposed action.

DECISION FRAMEWORK

The responsible official (Norwood District Ranger) will be deciding which methods will be used to effectively implement the 2002 Record of Decision (ROD) for the Uncompahgre Travel Plan within the Red Canyon project area. A variety of methods are available to meet the purpose and need for the project, including signing, the installation of gates, decommissioning, trail relocation, new trail construction and/or rehab, and administrative actions to facilitate permitted uses.

The responsible official will not be making any decisions about what roads and trails will be maintained on the Forest travel system, or what uses will be allowed within the project area. The Forest Supervisor of the GMUG National Forest already made those decisions in the 2002 ROD for the Uncompahgre National Forest Travel Plan. The Proposed Action and the Alternatives are focused on which methods will be used to effectively implement the existing Travel Management decision within the project area.

PURPOSE AND NEED

Implementation of the 2002 Record of Decision (ROD) for the Uncompahgre National Forest travel plan is an ongoing process. Within the project area this decision includes a variety of roads that provide a base transportation system and three motorized trails. Several local access roads and spurs associated with the base transportation system have been identified for decommissioning, while others are identified as routes that would be established as part of a single-track motorized trail system.

Two of the three single-track trails in the project area have been established. These trails include the Hornet trail and the Aspen trail. The Hornet trail is presently a single-track motorcycle trail that begins near the Antone Spring campground, crosses old Highway 90 near the head of Red Canyon, and ends at the States Draw road (FSR 549). The Aspen trail is a single-track motorcycle loop trail south of the Divide road (FSR 402) and east of the States Draw road. An extensive network of user-developed ATV trails has developed within the vicinity of the Aspen trail and the upper Red Canyon trail. A user-developed single-track trail has also developed connecting the Aspen trail to the Red Canyon trail through States Draw. Based on the resource damage occurring from off-route travel, improperly designed user-developed trails, and the extensive ATV use occurring on closed roads and the trails designated as single-track trails, there is a need to

decommission a variety of unauthorized routes and redesign access to the Hornet trail and Aspen trail to manage for the permitted uses in this area.

The 2002 ROD also identified two sections of the Red Canyon trail as proposed routes (please refer to the Uncompahgre ROD map for the Plateau Division, available online at <http://www.fs.fed.us/r2/gmug/policy/>). Forest Service recreation managers and resource specialists have inventoried the Red Canyon trail system identified in the 2002 ROD and recognized several resource concerns. This trail is a user-developed trail that evolved from ATV's connecting previously closed temporary logging roads and livestock trails with sections of new construction on very steep slopes. As established, this trail is causing resource damage and is continuing to be utilized and expanded in several directions by ATV's. There is a need to establish this trail as a seasonal-use single-track motorcycle trail as identified in the 2002 ROD. Sections of this trail need to be redesigned or re-routed to meet Forest Service design standards to establish a safe and sustainable route for the type of use permitted in the 2002 ROD.

Red Canyon is an important big game security area and provides valuable elk calving grounds for this portion of the Uncompahgre Plateau. These values were recognized in the Uncompahgre National Forest travel plan analysis and the 2002 ROD includes a seasonal restriction on the Red Canyon trail system to mitigate adverse impacts of motorized recreational use on big game animals. The continued unauthorized use by ATV's and proliferation of unauthorized trails within the project area is having an adverse effect on elk calving and big game habitat effectiveness. There is a need to reduce the density of open roads and motorized trails, and to effectively manage seasonal use of the Red Canyon trail system to mitigate impacts to elk calving and improve big game habitat effectiveness within the project area.

PROPOSED ACTION

The proposed action would utilize a combination of signing, gates, road and trail decommissioning, trail relocation/construction and rehab, and law enforcement to implement the 2002 Record of Decision (ROD) for the Uncompahgre National Forest Travel Plan. The approved travel routes included in the 2002 ROD include the Base Transportation System and three single-track trails. Roads included in the Base Transportation System are the Divide Road (FSR 402), Old Highway 90 (FSR 540), Highway 90 spur 1a (FSR 540.1a), Hanks Valley Road (FSR 512), Hanks Valley spur 1h (FSR 512.1h), and Hanks Valley spur 2c (FSR 512.2c). All of the roads included in the Base Transportation System would continue to be managed and maintained for the uses specified in the 2002 ROD.

Three single-track trails are identified in the 2002 ROD: the Red Canyon trail, Hornet trail, and Aspen trail. All three of these trails would remain designated as single-track trails open to motorcycles, bicycles, horses, and hikers. The Red Canyon trail has restrictions on the season of use for motorcycles. Under the 2002 ROD it is open to motorcycles from the Fourth of July weekend through the Labor Day weekend each year. The Hornet trail and Aspen trail have no seasonal use restrictions on motorcycles.

Two sections of the Red Canyon trail are identified in the 2002 ROD as proposed motorcycle trail (see map of 2002 Travel Plan Decision). Additional work on the ground would be necessary to complete the construction of the Red Canyon trail to meet Forest Service standards. The lower proposed section of trail currently meets Forest Service standards. However, the steep section of the existing trail off the end of the States Draw ridge does not meet Forest Service design standards and current uses are causing damage to vegetation, erosion, and contributing to soil loss. To avoid the steep section of trail, the upper portion of the Red Canyon trail would be relocated off the top of the States Draw ridge. The new trail route would utilize the eastern portion of the existing Hornet trail and the existing old logging road that is located on the bench above Red Canyon. Level 5 techniques would be used to decommission the existing route on top, as well as the steep section off the end of the ridge.

The relocation of the upper portion of the Red Canyon trail would result in changes to the current trail system. The Hornet trail would be shortened in length and maintained as single-track trail that would be open to motorcycles, bicycles, horses, and hikers. However, it would no longer directly connect to the single-track trails east of Old Highway 90. The Aspen trail would continue to be maintained as a single-track trail open to motorcycles, bicycles, horses, and hikers. The proposed action would not affect the current route location and permitted uses of the Aspen trail.

Additional work on the ground would be necessary to designate and limit use of all single-track trails to the approved uses and to prevent other unauthorized uses within the project area. The proposed action includes the construction of four squeeze gates that would be designed to allow motorcycles, bicycles, horses, and hikers to pass through while preventing ATV's and full-size vehicles from entering the trail. It also includes the construction of two full-size gates that are designed to prevent any vehicle from entering a trail while providing the livestock permittee full-size vehicle administrative access to his sheep camps in the area. In addition, the proposed action includes installation of one cattle guard trail crossing to allow motorcycles and bicycles to cross the range fence separating the two grazing allotments without having to stop, while preventing cattle from crossing the fence. Additional signs are needed on all three trails to properly mark the location of open routes and permitted uses for the public.

A complete description of the Proposed Action is presented in Chapter 2 of this document.

PUBLIC INVOLVEMENT

Scoping was conducted to solicit public and agency input to the proposed action, and to help determine issues and concerns associated with the proposed action. To facilitate this, the general public was notified of the proposed action in the Schedule of Proposed Actions for the Grand Mesa, Uncompahgre, and Gunnison National Forests beginning in the fourth quarter of 2006. Also, the Norwood Ranger District published a Legal Notice in the Telluride Daily Planet on November 23, 2006 notifying the public of the Red

Canyon Travel Management project and the opportunity to comment on the proposed action. In addition, a personal scoping letter was sent to 27 interested and affected individuals, organizations and agencies on November 21, 2006 to solicit input to the proposed action.

During the 30-day scoping period people were given the opportunity to submit comments through the mail, e-mail, FAX, telephone, or to deliver them by hand. As a result of one comment letter, the Norwood District Ranger wrote a letter of response to an individual who submitted comments and requested additional information on the proposed action and other concerns he had expressed. Another individual contacted the Norwood Ranger District several times and also submitted written comments as the representative of Public Access Preservation Association (PAPA). Also during the 30-day comment period, a bulletin was posted on the internet at off-road.com notifying members of various motorized organizations about the Red Canyon Travel Management project and encouraging them to provide comment to the Forest Service to change the 2002 Travel Plan Decision for the Red Canyon project area and to support the PAPA alternative. This internet site generated most of the comments received on this proposal.

During the 30-day scoping period a total of 103 comments were received, and another 3 written comments were received after the scoping period ended. The majority of the comments were in response to the internet site rather than the scoping letter. They requested changes in the 2002 ROD. As such, they are outside the scope of the decision to be made.

As a result of the comments received from livestock grazing permittees, the Forest Service Range Conservationists for both the Norwood and Ouray Ranger Districts met with the permittees that have grazing permits within the project area to discuss the proposed action and clarify information provided in their written comments. One of the permittees is also the owner of the 40-acre parcel of private land within the project area. In general, the permittees support the Forest Service proposal to implement the 2002 ROD but have concerns about the need for motorized access for the operation and maintenance of their grazing permits. The landowner did not express any concern with access to his private property.

As a result of the comments received from various motorized users and groups, the Forest Service met with members of the PAPA, the Motorcycle Trail Riders Association, and Thunder Mountain Wheelers in Montrose, Colorado on the evening of January 23, 2007. The objectives of the meeting were to provide the representatives of these organizations with background information on the 2002 Travel Management Plan for the Uncompahgre National Forest, to discuss the NEPA involved with that decision, and explain the project-level decisions to be made in the Red Canyon project area in the context of the Forest-level Travel Plan decision. Extensive discussions also occurred at the meeting to clarify the purpose and need for the project, the Forest Service proposed action, and the PAPA alternative. In general, the representatives at the meeting do not support the Forest Service proposal to implement the 2002 ROD, and feel that it is a flawed plan that needs to be revisited to accommodate the increased demand for motorized recreation.

Following the meeting in Montrose, the Forest Service received a request for additional information from the PAPA representative under the Freedom Of Information Act. The request focused on providing a copy of all public comments received to date for the Uncompahgre Plateau Red Canyon area project proposal. The Forest Service provided the information requested.

Other comments received from non-motorized groups and individuals supported the Forest Service proposal to implement the 2002 ROD, and they had specific comments on the proposed relocation of the Red Canyon trail, the proliferation of unauthorized trails and ATV use of single-track trails, and effective methods of implementing the ROD.

The project Interdisciplinary Team (ID Team) met on February 20, 2007 to review and analyze the comments received from the public. Appendix A contains the Response to Comments.

The project ID Team reviewed the proposed action for consistency with direction in the 1991 Amended GMUG National Forest Land and Resource Management Plan (Forest Plan), the 2002 Record Of Decision for the Uncompahgre National Forest Travel Plan, and other applicable laws, Forest Service policy, and existing permits. Resource specialists also conducted field reviews and provided the reports necessary to determine potential impacts to heritage and biological resources.

Upon receiving an invitation, the District Ranger attended a meeting with PAPA on the evening of March 13, 2007 in Telluride. Approximately 25-30 members were present. During the meeting a variety of recreation issues and projects were discussed, including the Red Canyon Travel Management project. The group restated the belief that the 2002 ROD is flawed and should be changed, and supported the PAPA alternative submitted earlier. When asked how many members had read the scoping letter, approximately 6 people indicated they had.

On June 29, 2007 the District Ranger and three members of the project ID Team went on a field trip with members of PAPA to review the existing and proposed routes and uses within the project area. Members of the PAPA present reiterated their desire to have the Forest Service change the 2002 ROD to allow for increased motorized use as presented in the alternative they previously submitted during scoping. They also discussed the possibility of adaptive management, or a “pilot project”, to examine the effects of a change in the implementation of the ROD. The District Ranger agreed to consider proposals from the group.

ISSUES

Issues are points of discussion, debate, or disagreement regarding anticipated effects of the proposed action. It is these potential effects that provide focus for environmental analysis, influence alternative development, and lead to project design criteria.

All of the comments received during scoping and subsequent public meetings were reviewed by the Responsible Official and the ID Team. The Forest Service separated the issues into two groups: significant and non-significant issues. Significant issues were defined as those directly or indirectly caused by implementing the proposed action. Non-significant issues were identified as those: 1) outside the scope of the proposed action; 2) already decided by law, regulation, Forest Plan, or other higher level decision; 3) irrelevant to the decision to be made; or 4) conjectural and not supported by scientific or factual evidence. The Council on Environmental Quality (CEQ) NEPA regulations require this delineation in Sec. 1501.7, "...identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3)..."

Significant Issues

The following issues were used to evaluate the proposed action:

Completion And Proper Use Of Single-track Trails. The 2002 Record Of Decision for the Uncompahgre National Forest Travel Plan has designated three single-track trails within the project area. Additional work needs to be done to finish construction of the Red Canyon trail, and to designate and limit use of all single-track trails to the approved uses and to prevent other unauthorized uses within the project area.

Red Canyon Trail Alignment. Numerous comments were received on maintaining the current/proposed Red Canyon trail alignment instead of relocating it to an old logging road on a bench on the east side of Red Canyon. People would prefer that the Forest Service replace the steep section of trail off the end of States Draw ridge with properly designed switchbacks to meet Forest Service design standards, and rehab the existing route, instead of relocating the trail. This route offers a more challenging ride and has less effect on the other single-track trails in the area.

Livestock Permittee Access. Motorized access is needed by the livestock permittees for operation and maintenance of their grazing permits. The type of road decommissioning included in the decision will have various effects on motorized access. The permittee on the Red Canyon Sheep Allotment needs to have full-size vehicle access to his sheep camps on States Draw ridge.

CUMULATIVE ACTIONS CONSIDERED IN THIS ANALYSIS

Cumulative actions are those past, present and reasonably foreseeable activities in or near the project area that may not individually, but may cumulatively result in effects of concern. Consideration of these actions aids in the understanding of the context of the proposed action within a broader setting, and is important in determining whether "significant effect to the quality of the human environment" may occur as a result of the proposed action or alternatives.

Cumulative actions considered include the following:

1. Actions that have already been conducted to implement the 2002 Record of Decision for the Uncompahgre National Forest Travel Plan.
2. Establishing a system of single-track motorcycle and bicycle trails on the Uncompahgre Plateau that includes trails within the project area.
3. The National Travel Management Rule of 2005.
4. Past timber sales in the Iron Spring, States Draw, Red Canyon, and Little Red Canyon areas, and the NEPA Decisions related to those activities.
5. Potential for future timber sales within and adjacent to the project area.
6. Land ownership and access needs.
7. Minerals activities including oil and gas leases.
8. Irrigation ditch easements that exist within the project area.
9. Past and proposed fuels management projects, especially in the Wildland Urban Interface.

Chapter 2: Alternatives Including the Proposed Action

This chapter describes and compares the alternatives available to the Responsible Official for addressing the purpose and need for action. A description of all alternatives is provided with associated maps and figures.

CONSISTENCY WITH THE FOREST PLAN, LAWS, REGULATIONS, POLICIES AND OTHER DIRECTION

Forest Plan Consistency

Management direction in the 1991 Amended Land and Resource Management Plan (Forest Plan) for the GMUG National Forests is included in Chapter III. The Forest Plan includes General Direction and Standards and Guidelines for management activities on the Forest and each of the Management Areas. Forest Direction is applicable to all areas of the forest unless specifically altered in the Management Area Direction. The Red Canyon project area includes Management Areas 2A (semi-primitive motorized recreation), 6B (livestock grazing), and 7A (timber production).

The General Direction and Standards and Guidelines related to travel management within the project area is found under Transportation System Management (III-76 through III-78) and under Trail System Management (III-81 through III-82). Management Area Direction related to travel management within the project area is found under Dispersed Recreation Management, Transportation System Management, and Trail System Management (III-101 through III-104, III-146 through III-148, and III-151 through III-154). The following table summarizes applicable Forest Plan Direction:

Management Activities	General Direction	Standards & Guidelines
Transportation System Management	02 Classify areas as to whether off-road vehicle use is permitted	a. Specify off-road vehicle restrictions based on OHV vehicle management
	03 Close all newly constructed roads to public motorized use unless documented analysis shows: <ul style="list-style-type: none"> a. Use does not adversely impact other resources b. Use is compatible with the ROS class established for the area c. They are located in areas open to motorized use d. They provide user safety e. They serve an identified public need f. The area accessed can be adequately managed g. Financing is available or can be arranged for maintenance 	
	04 Manage public motorized use on roads and trails to maintain or enhance effective habitat for elk	a. Objective level of habitat effectiveness for elk within each fourth-order watershed is at least 40% b. Habitat effectiveness will be determined by evaluating in combination hiding and thermal cover, forage, road density and human activity on roads.
	05 Manage road use by seasonal closure if: <ul style="list-style-type: none"> a. Use causes unacceptable damage to soil and water resources due to weather or seasonal conditions. c. Use causes unacceptable wildlife conflict or habitat degradation. 	
	06 Keep existing roads open to public motorized use unless: <ul style="list-style-type: none"> b. use causes unacceptable damage to soil and water resources. d. they are located in areas closed to motorized use and are not designated routes in the Forest travel management direction. g. use conflicts with wildlife management objectives. 	
	07 Closed or restricted roads may be used for and to accomplish administrative purposes when: <ul style="list-style-type: none"> a. Prescribed in management area direction statements b. Authorized by the Forest Supervisor c. In case of emergency. 	

	08 All existing roads not needed for multi-resource management will be obliterated at the earliest opportunity. Reduce existing open road mileage in project areas whenever possible.	
Trail System Management	01 Maintain all trails for foot and horse travel unless specifically closed to either or both class of user.	
	03 Provide a full range of trail opportunities in coordination with other federal, State, and municipal jurisdictions and private industries both on and off NFS lands.	
Dispersed Recreation Management (2A)	01 Emphasize semi-primitive motorized recreation opportunities. Increase opportunities for primitive road motorized trail use. Specify land areas or travel routes may be closed seasonally or year round for compatibility with adjacent area management, to prevent resource damage, for economic reasons, to prevent conflicts in use, and for user safety.	a. Specify off-road vehicle restrictions based on ORV use management.
	02 Prohibit motorized vehicle use off Forest system roads and trails in alpine and other ecosystems where needed to protect soils, vegetation, or special wildlife habitat.	
Trail System Management (2A)	01 Maintain existing motorized routes or construct new routes as needed as part of the transportation system. Provide loop routes of ½ to 1 day's travel time with at least ½ the total route located within the semi-primitive motorized ROS class and suitable for motorized trail bike travel.	a. Do not exceed an average motorized trail density of 4 miles per square mile on fourth order watersheds.
Dispersed Recreation Management (6B and 7A)	01 Semi-primitive nonmotorized, semi-primitive motorized, roaded natural, and rural recreation opportunities can be provided.	
	02 Provide roaded natural recreation opportunities within ½ miles of Forest arterial, collector, and local roads with better than primitive surfaces which are open to public travel. Provide semi-primitive motorized recreation opportunities with a low to moderate incidence of contact with other groups and individuals within ½ mile of designated local roads with primitive surfaces and trails open to motorized recreation use. Where local roads are closed to public motorized recreation travel, provide for dispersed non-motorized recreation opportunities. Manage recreation use to provide for the incidence of contact with other groups and individuals appropriate	b. Specify off-road vehicle restrictions based on ORV use management.

	for the established ROS class. Provide semi-primitive non-motorized recreation opportunities in all areas more than ½ mile away from roads and trails open to motorized recreation use.	
	05 Prohibit motorized vehicle use off Forest system roads and trails in alpine and other ecosystems where needed to protect soils, vegetation, or special wildlife habitat (MA 7A).	

Each alternative was reviewed for consistency with the Forest Plan. Alternative 1 is developed to describe and analyze the current condition on the ground. There are several inconsistencies present within the project area under the current situation. Previous attempts to close temporary logging roads to motorized use have not been effective at controlling ATV's. Additional user-developed trails have been created within the project area that are not designed for the uses they are receiving. As a result, sections of these trails are causing resource damage to vegetation and soils. Conflicts have evolved between motorized recreation uses in the area. ATV's and full-size vehicles are using trails that are intended to be single-track motorcycle and bicycle trails. The proliferation of user-developed trails and unauthorized use is having an adverse effect on elk calving and habitat effectiveness, conflicting with wildlife management objectives. All of these inconsistencies are reflected in the Purpose and Need for this project.

Alternative 2 would mitigate most of the inconsistencies with the Forest Plan. Minor decommissioning, gates, and administrative actions authorized in the 2002 ROD for the Uncompahgre Travel Plan are anticipated to alleviate impacts to recreation and wildlife. However, without additional NEPA new trail construction or rehab work could not occur on the steep section of the Red Canyon trail that is currently experiencing resource damage to vegetation and soils. This would continue to be inconsistent with the Forest Plan.

Actions included in Alternatives 3 and 4 are designed to be consistent with Forest Plan direction. Additional work would be completed on the ground to fully implement road and trail decommissioning, limit uses of designated roads and trails to those authorized in the Travel Plan, and implement the seasonal closure of the Red Canyon trail. Current impacts to vegetation and soils on the steep section of the Red Canyon trail would be mitigated by the construction of switchbacks to Forest Service design standards and the rehab of the existing eroding trail, or by rerouting the trail around this area and rehabbing the existing eroding trail.

Uncompahgre National Forest Travel Plan

In March of 2002 the Grand Mesa, Uncompahgre, and Gunnison (GMUG) National Forests completed a six-year process of public involvement and analysis to revise the Travel Plan for the Uncompahgre National Forest. Travel management decisions were made for the Forest at two levels. The first level addressed area-wide uses during the summer and winter. The second level addressed route-specific decisions of what routes

would be designated and maintained for public use, and what uses are allowed on those designated routes. Seasonal restrictions also apply to certain motorized and mechanized routes on the Forest to protect natural resources and to prevent physical damage to selected Forest roads.

The current situation does not comply with the Uncompahgre National Forest Travel Plan. The project area contains three single-track motorcycle trails: Hornet, Aspen, and Red Canyon. An extensive network of user-developed ATV trails has developed within the vicinity of the Aspen trail and the upper Red Canyon trail. Based on the resource damage occurring from off-route travel, improperly designed user-developed trails, and the extensive ATV use occurring on closed roads and the trails designated as single-track trails, there is a need to decommission a variety of unauthorized routes and redesign access to the Hornet trail and Aspen trail to manage for the permitted uses in this area.

The Travel Plan also identified two sections of the Red Canyon trail as proposed routes. Forest Service recreation managers and resource specialists have inventoried the Red Canyon trail system identified in the 2002 Record Of Decision (ROD) and recognized several resource concerns. This trail is a user-developed trail that evolved from ATV's connecting previously closed temporary logging roads and livestock trails with sections of new construction on very steep slopes. As established, this trail is causing resource damage and is continuing to be utilized and expanded in several directions by ATV's. There is a need to establish this trail as a seasonal-use single-track motorcycle trail as identified in the 2002 ROD. Sections of this trail need to be redesigned or re-routed to meet Forest Service design standards to establish a safe and sustainable route for the type of use permitted in the 2002 ROD.

Red Canyon is an important big game security area and provides valuable elk calving grounds for this portion of the Uncompahgre Plateau. These values were recognized in the Uncompahgre National Forest travel plan analysis and the 2002 ROD includes a seasonal restriction on the Red Canyon trail system to mitigate adverse impacts of motorized recreational use on big game animals. The continued unauthorized use by ATV's and proliferation of unauthorized trails within the project area is having an adverse effect on elk calving and big game habitat effectiveness. There is a need to reduce the density of open roads and motorized trails, and to effectively manage seasonal use of the Red Canyon trail system to mitigate impacts to elk calving and improve big game habitat effectiveness within the project area.

Alternative 2 would mitigate several inconsistencies with the Travel Plan. Minor decommissioning, gates, and administrative actions authorized in the 2002 ROD for the Uncompahgre Travel Plan are anticipated to alleviate impacts to recreation and wildlife. However, without additional NEPA new trail construction or rehab work could not occur on the steep section of the Red Canyon trail that is currently experiencing resource damage to vegetation and soils. Based on previous experience, compliance with road and trail closures, authorized uses, and seasonal use restrictions would likely be minimal which would have little benefit to wildlife.

Actions included in Alternatives 3 and 4 are designed to implement the Uncompahgre Travel Plan and be consistent with the 2002 ROD. Additional work would be completed on the ground to fully implement road and trail decommissioning, limit uses of designated roads and trails to those authorized in the Travel Plan, and implement the seasonal closure of the Red Canyon trail. Current impacts to vegetation and soils on the steep section of the Red Canyon trail would be mitigated by the construction of switchbacks to Forest Service design standards and the rehab of the existing eroding trail, or by rerouting the trail around this area and rehabbing the existing eroding trail. Seasonal use restrictions would meet wildlife management objectives to protect elk calving and enhance habitat effectiveness, and would alleviate conflicts between motorized recreation users.

Laws, Regulations, Policies, and Other Guidance

In conformance with the Endangered Species Act and Forest Service regulation, a combined Biological Assessment and Biological Evaluation was prepared to determine potential effects to federally listed and Forest Service sensitive species and habitat. Based on this Assessment, there will be no effect to a majority of the threatened, endangered, or proposed species listed for the GMUG National Forest. Minor affects to habitat for the Canada lynx could occur that may effect, but are not likely to adversely affect this species. Similarly, there will be no impact to the majority of sensitive species evaluated. Minor effects to individuals could occur from some decommissioning activities, but the impact is not anticipated to result in a loss of species viability on the planning area, nor cause a trend toward federal listing or a loss of viability rangewide. In compliance with other Forest Service regulation, a Management Indicator Species (MIS) report was prepared to determine the potential impacts to MIS applicable to the project area and proposed action. Based on this report, there will be no measurable effect on the existing forest vegetation species composition, age class, distribution, or habitat capability for MIS. Alternatives 3, and 4 are anticipated to have immediate and long-term beneficial effects to habitat effectiveness for the Rocky Mountain elk.

In compliance with the 1992 amendments to the National Historic Preservation Act and the accompanying regulations, a Cultural Resources Survey and Report was completed to determine the presence of Heritage Resources and the potential for any impacts to those resources. Based on this report there are no cultural resources found within the project area that need to be avoided or protected. A copy of the Negative Results Survey Report was sent to the Colorado State Historic Preservation Officer.

ALTERNATIVES

The alternatives considered in detail are described below. The No Action alternative is required under NEPA, and is used to describe the current situation within the project area. The other alternatives were developed by the project Interdisciplinary Team to meet the purpose and need for the project in response to the significant issues identified.

Alternative 1

Alternative 1 is developed to describe the current condition on the ground, and the administrative actions necessary to comply with the 2002 Record of Decision (ROD) for the Uncompahgre National Forest Travel Plan. As shown on the map of Alternative 1, existing routes within the project area include the Base Transportation System, three single-track trails, and a variety of other routes.

Roads included in the Base Transportation System are the Divide Road (FSR 402), Old Highway 90 (FSR 540), Highway 90 spur 1a (FSR 540.1a), Hanks Valley Road (FSR 512), Hanks Valley spur 1h (FSR 512.1h), and Hanks Valley spur 2c (FSR 512.2c). All of the roads included in the Base Transportation System would continue to be managed and maintained for the uses specified in the 2002 ROD.

Existing trails within the project area include the Red Canyon trail, Hornet trail, and Aspen trail. All three trails are currently designated as single-track trails open to motorcycles, bicycles, horses, and hikers. The Red Canyon trail is open to motorcycles from the Fourth of July weekend through the Labor Day weekend each year. The Hornet trail and Aspen trail have no seasonal use restrictions on motorcycles.

Two sections of the Red Canyon trail within the project area are identified as proposed motorcycle trail in the 2002 ROD (see map of 2002 Travel Plan Decision). Additional work on the ground would be necessary to complete the construction of the Red Canyon trail to meet Forest Service standards. The steep section of trail off the point of States Draw Ridge needs to be replaced with switchbacks to maintain the current/proposed trail alignment. New trail construction and rehab work on the existing steep section is outside the scope of the 2002 ROD. Additional NEPA would be required to complete this section of the proposed route.

Minor trail maintenance activities would continue to occur on all three trails. However, no work would be done on the ground to improve these trail systems or to prevent unauthorized ATV and other vehicular use.

Under this alternative, all other routes identified for decommissioning within the project area would be administratively closed to public travel. All 10.7 miles of the other existing routes identified on the map would be removed from the transportation atlas and Motor Vehicle Use Map. No work would be done on the ground to physically decommission the routes to prevent unauthorized use. Law enforcement would continue to enforce the closures identified in the 2002 ROD and the Motor Vehicle Use Map.

Alternative 2

The No Action Alternative is required under the National Environmental Policy Act (NEPA) and would implement actions currently authorized in the 2002 Record of Decision (ROD) for the Uncompahgre National Forest Travel Plan. These actions include signing of designated routes to show uses allowed, the closure of routes using

various means, the decommissioning of selected routes, and the construction or reconstruction of still others (ROD page 28). Simple actions necessary for the designation and closure of routes are covered by the 2002 ROD and may proceed with no further study. These actions require minimal ground disturbance and include signing, gates, and Decommission Levels 1 through 4.

As shown on the map for Alternative 2, the approved travel routes included in the 2002 ROD include the Base Transportation System and three single-track trails. As previously described, roads included in the Base Transportation System are the Divide Road (FSR 402), Old Highway 90 (FSR 540), Highway 90 spur 1a (FSR 540.1a), Hanks Valley Road (FSR 512), Hanks Valley spur 1h (FSR 512.1h), and Hanks Valley spur 2c (FSR 512.2c). All of the roads included in the Base Transportation System would continue to be managed and maintained for the uses specified in the 2002 ROD.

Existing trails within the project area include the Red Canyon trail, Hornet trail, and Aspen trail. Two sections of the Red Canyon trail within the project area are identified as proposed motorcycle trail in the 2002 ROD (see map of 2002 Travel Plan Decision). Additional work on the ground would be necessary to complete the construction of the Red Canyon trail to meet Forest Service standards. The steep section of trail off the point of States Draw Ridge needs to be replaced with switchbacks to maintain the current/proposed trail alignment. New trail construction and rehab work on the existing steep section is outside the scope of the 2002 ROD. Additional NEPA would be required to complete this section of the proposed route. The lower proposed section of trail currently meets Forest Service standards.

All three of these trails would remain designated as single-track trails open to motorcycles, bicycles, horses, and hikers. The Red Canyon trail has restrictions on the season of use for motorcycles. Under the 2002 ROD it is open to motorcycles from the Fourth of July weekend through the Labor Day weekend each year. The Hornet trail and Aspen trail have no seasonal use restrictions on motorcycles.

Additional work on the ground would be necessary to designate and limit use of the single-track trails to the approved uses and to prevent other unauthorized uses within the project area. Alternative 2 includes the construction of five squeeze gates that would be designed to allow motorcycles, bicycles, horses, and hikers to pass through while preventing ATV's and full-size vehicles from entering the trail. This alternative also includes the construction of two full-size gates that are designed to prevent any vehicle from entering a trail while providing the livestock permittee full-size vehicle administrative access to his sheep camps in the area. The specific locations for these gates are shown on the map of Alternative 2. Additional signs are needed on all three trails to properly mark the location of open routes and permitted uses for the public.

Within the project area a total of 9.7 miles of Level 3 decommissioning would be utilized to close existing routes to unauthorized travel. The roads identified would be closed by placing natural debris such as slash, rock, or logs on the road template in accordance with standard Forest Service specifications and designs. Materials used as debris to

camouflage the road template would be located on and adjacent to the road that is decommissioned. Areas of disturbed ground would be seeded with a mix of native plant species appropriate for the site. Travel management signs would be placed at the beginning of each road.

Within the project area a total of 1.0 miles of Level 4 decommissioning would be utilized to close existing routes to unauthorized travel. The road identified would be physically barricaded with a permanent gates, fences, and/or rock barricades in accordance with standard Forest Service specifications and designs. Areas of disturbed ground would be seeded with a mix of native plant species appropriate for the site. Travel management signs would be placed at the beginning of each road.

The specific locations of the routes to be decommissioned are shown on the project map. As shown on the map legend, there are two levels of decommissioning that include a combination of gates, decommissioning, and signing. The Treatment Level shown on the map would be applied to the routes specified in accordance with Forest Service design standards. The schedule of implementation would be coordinated with other ongoing management activities within the project area. Administrative access for livestock permittees would be authorized through applicable permits and operating plans. The routes decommissioned in this project will be monitored by the Forest Service to determine if the design standards were properly implemented, and to assess the effectiveness of the type of treatment used to meet project objectives. If monitoring determines there are corrective actions necessary, those actions will be implemented as soon as possible.

Alternative 3 – Proposed Action

The proposed action would utilize a combination of signing, gates, road and trail decommissioning, trail relocation/construction and rehab, and law enforcement to implement the 2002 Record of Decision (ROD) for the Uncompahgre National Forest travel plan. As shown on the map of Alternative 3, this alternative includes the relocation of the upper section of the Red Canyon trail. The new trail location would overlap a portion of the Hornet trail, then utilize an old logging road on the bench above Red Canyon to avoid the steep section of trail that does not meet Forest Service specifications. The upper section would be decommissioned and removed from the trail system. This alternative also includes the installation of two squeeze gates, two full-size gates, one cattle guard trail crossing, and four levels of road/trail decommissioning.

As shown on the map of Alternative 3, the travel routes included in the 2002 ROD include the Base Transportation System and three single-track trails. As previously described, roads included in the Base Transportation System are the Divide Road (FSR 402), Old Highway 90 (FSR 540), Highway 90 spur 1a (FSR 540.1a), Hanks Valley Road (FSR 512), Hanks Valley spur 1h (FSR 512.1h), and Hanks Valley spur 2c (FSR 512.2c). All of the roads included in the Base Transportation System would continue to be managed and maintained for the uses specified in the 2002 ROD.

Three single-track trails would be completed and maintained in this Alternative. The relocation of the upper portion of the Red Canyon trail would result in changes to the current trail system. All three of these trails would remain designated as single-track trails open to motorcycles, bicycles, horses, and hikers. The Red Canyon trail has restrictions on the season of use for motorcycles. Under the 2002 ROD it is open to motorcycles from the Fourth of July weekend through the Labor Day weekend each year. The Hornet trail and Aspen trail have no seasonal use restrictions on motorcycles.

Two sections of the Red Canyon trail are identified as proposed motorcycle trail in the 2002 ROD (see map of 2002 Travel Plan Decision). Additional work on the ground would be necessary to complete the construction of the Red Canyon trail to meet Forest Service standards. The lower proposed section of trail currently meets Forest Service standards. However, the steep section of the existing trail off the end of the States Draw ridge does not meet Forest Service design standards and current uses are causing resource damage. To avoid the steep section of trail, the upper portion of the Red Canyon trail would be relocated off the top of the States Draw ridge. The new trail route would utilize the eastern portion of the existing Hornet trail and the existing old logging road that is located on the bench above Red Canyon. Level 5 techniques would be used to decommission the existing route on top, as well as the steep section off the end of the ridge.

The Hornet trail would be shortened in length and maintained as single-track trail that would be open to motorcycles, bicycles, horses, and hikers. The Hornet trail would originate at the Antone Spring Campground and end at old highway 90. The short section (0.1 mile) from old highway 90 to the new Red Canyon trail location would be obliterated using Level 7 decommissioning techniques. This would provide separation of the Hornet and Red Canyon trails, and prevent unauthorized use by ATV's.

The Aspen trail would continue to be maintained as a single-track trail open to motorcycles, bicycles, horses, and hikers. Route locations and permitted uses would not be affected by the proposed action.

Additional work on the ground would be necessary to designate and limit use of the single-track trails to the approved uses and to prevent other unauthorized uses within the project area. The proposed action includes the construction of four squeeze gates that would be designed to allow motorcycles, bicycles, horses, and hikers to pass through while preventing ATV's and full-size vehicles from entering the trail. This alternative also includes the construction of two full-size gates that are designed to prevent any vehicle from entering a trail while providing the livestock permittee full-size vehicle access to his sheep camps in the area. In addition, the proposed action includes installation of one cattle guard trail crossing to allow motorcycles and bicycles to cross the range fence without having to stop, while preventing cattle from crossing the fence. The specific locations for the gates are shown on the map of Alternative 3. Additional signs are needed on all three trails to properly mark the location of open routes and permitted uses for the public.

Within the project area a total of 5.8 miles of Level 3 decommissioning would be utilized to close existing routes to unauthorized travel. The roads identified would be closed by placing natural debris such as slash, rock, or logs on the road template in accordance with standard Forest Service specifications and designs. Materials used as debris to camouflage the road template would be located on and adjacent to the road that is decommissioned. Areas of disturbed ground would be seeded with a mix of native plant species appropriate for the site. Travel management signs would be placed at the beginning of each road.

Within the project area a total of 1.0 miles of Level 4 decommissioning would be utilized to close existing routes to unauthorized travel. The roads identified would be physically barricaded with permanent gates, fences, and/or rock barricades in accordance with standard Forest Service specifications and designs. Areas of disturbed ground would be seeded with a mix of native plant species appropriate for the site. Travel management signs would be placed at the beginning of each road.

Within the project area a total of 3.9 miles of Level 5 decommissioning would be utilized to close existing routes to unauthorized travel, and rehab the existing steep section of the Red Canyon trail. Level 5 decommissioning includes ripping, disking, and seeding the full length of the roadbed, and placing debris such as rock and slash on the road to further impede traffic and camouflage the road template. Earth barriers and water bars would also be constructed to impede traffic and provide drainage. Areas of disturbed ground would be seeded with a mix of native plant species.

A total of 0.1 mile of the existing Hornet trail would be decommissioned near the intersection with old highway 90 using Level 7 decommissioning techniques. Level 7 includes the removal of the existing culvert and fill material at the Red Canyon creek crossing and reshaping the cut and fill slopes of the old logging road. Areas of disturbed ground would be seeded with a mix of native plant species.

The specific locations of the routes to be decommissioned are shown on the map for Alternative 3. The Treatment Level shown on the map would be applied to the routes specified in accordance with Forest Service design standards. The schedule of implementation would be coordinated with other ongoing management activities within the project area. Administrative access for livestock permittees would be authorized through applicable permits and operating plans. The routes decommissioned in this project will be monitored by the Forest Service to determine if the design standards were properly implemented, and to assess the effectiveness of the type of treatment used to meet project objectives. If monitoring determines there are corrective actions necessary, those actions will be implemented as soon as possible. If the treatment method utilized does not effectively meet the travel management objective for the route, the Forest Service will increase the Treatment Level to meet those objectives as soon as possible.

Alternative 4

Alternative 4 would utilize a combination of signing, gates, trail construction and rehab, road and trail decommissioning, and law enforcement to implement the 2002 Record of Decision (ROD) for the Uncompahgre National Forest travel plan. Roads and trails within the project area would be designed and managed for the types of uses and seasons specified in the 2002 ROD. Construction of the Red Canyon trail would be completed on the current/proposed route to bring it into Forest Service design standards. This alternative was developed in part to respond to the opportunity to provide more single-track trails within the project area that would provide a more challenging ride to motorcycles and bicycles on the Red Canyon trail.

As shown on the map for Alternative 4, the travel routes included in the 2002 ROD include the Base Transportation System and three single-track trails. As previously described, roads included in the Base Transportation System are the Divide Road (FSR 402), Old Highway 90 (FSR 540), Highway 90 spur 1a (FSR 540.1a), Hanks Valley Road (FSR 512), Hanks Valley spur 1h (FSR 512.1h), and Hanks Valley spur 2c (FSR 512.2c). All of the roads included in the Base Transportation System would continue to be managed and maintained for the uses specified in the 2002 ROD.

Three single-track trails would be completed and maintained in this Alternative. All three of these trails would remain designated as single-track trails open to motorcycles, bicycles, horses, and hikers. The Red Canyon trail has restrictions on the season of use for motorcycles. Under the 2002 ROD it is open to motorcycles from the Fourth of July weekend through the Labor Day weekend each year. The Hornet trail and Aspen trail have no seasonal use restrictions on motorcycles.

Two sections of the Red Canyon trail are identified as proposed motorcycle trail in the 2002 ROD (see map of 2002 Travel Plan Decision). Additional work on the ground would be conducted to complete the construction of the Red Canyon trail to meet Forest Service standards. The lower proposed section of trail currently meets Forest Service standards. However, the steep section of the existing trail off the end of the States Draw ridge does not meet Forest Service design standards and current uses are causing resource damage. Under this alternative, the existing steep section would be replaced with switchbacks to maintain the current/proposed trail alignment. Approximately 0.5 miles of new trail construction and 0.3 miles of trail rehab work would be required to complete this section of the trail.

The existing Hornet trail and Aspen trail would not be affected by the completion of the Red Canyon trail as proposed in this alternative. However, additional work on the ground would be necessary to designate and limit use of the single-track trails to the approved uses and to prevent other unauthorized uses within the project area. Alternative 4 includes the construction of four squeeze gates that would be designed to allow motorcycles, bicycles, horses, and hikers to pass through while preventing ATV's and full-size vehicles from entering the trail. This alternative also includes the construction

of two full-size gates that are designed to prevent any vehicle from entering a trail while providing the livestock permittee full-size vehicle administrative access to his sheep camps in the area. In addition, the proposed action includes installation of one cattle guard trail crossing to allow motorcycles and bicycles to cross the range fence separating the two grazing allotments without having to stop, while preventing cattle from crossing the fence. The specific locations for the gates and cattle guard are shown on the map for Alternative 4. Additional signs are needed on all three trails to properly mark the location of open routes and permitted uses for the public.

Within the project area a total of 5.8 miles of Level 3 decommissioning would be utilized to close existing routes to unauthorized travel. The roads identified would be closed by placing natural debris such as slash, rock, or logs on the road template in accordance with standard Forest Service specifications and designs. Materials used as debris to camouflage the road template would be located on and adjacent to the road that is decommissioned. Areas of disturbed ground would be seeded with a mix of native plant species appropriate for the site. Travel management signs would be placed at the beginning of each road.

Within the project area a total of 1.0 miles of Level 4 decommissioning would be utilized to close existing routes to unauthorized travel. The roads identified would be physically barricaded with permanent gates, fences, and/or rock barricades in accordance with standard Forest Service specifications and designs. Areas of disturbed ground would be seeded with a mix of native plant species appropriate for the site. Travel management signs would be placed at the beginning of each road.

Within the project area a total of 4.3 miles of Level 5 decommissioning would be utilized to close existing routes to unauthorized travel, and rehab the existing steep section of the Red Canyon trail. Level 5 decommissioning includes ripping, disking, and seeding the full length of the roadbed, and placing debris such as rock and slash on the road to further impede traffic and camouflage the road template. Earth barriers and water bars would also be constructed to impede traffic and provide drainage. Areas of disturbed ground would be seeded with a mix of native plant species.

The specific locations of the routes to be decommissioned are shown on the project map. The Treatment Level shown on the map would be applied to the routes specified in accordance with Forest Service design standards. The schedule of implementation would be coordinated with other ongoing management activities within the project area. Administrative access for livestock permittees would be authorized through applicable permits and operating plans. The routes decommissioned in this project will be monitored by the Forest Service to determine if the design standards were properly implemented, and to assess the effectiveness of the type of treatment used to meet project objectives. If monitoring determines there are corrective actions necessary, those actions will be implemented as soon as possible. If the treatment method utilized does not effectively meet the travel management objective for the route, the Forest Service will increase the Treatment Level to meet those objectives as soon as possible.

Project Design Criteria

In response to management standards and guidelines of the Forest Plan and the significant issues identified for the proposed action, project design criteria were developed to alleviate potential resource impacts and to facilitate administrative access. The project design criteria and administrative actions are necessary to implement the selected alternative.

1. To avoid impacts to water quality, aquatic species, and wildlife, road and trail decommissioning will be implemented in accordance with Forest Service design practices and standards.
2. Seed mixes for revegetation of road closures and obliteration will consist of native plant species appropriate for the ecological site as directed in the revegetation management policy for the GMUG National Forests.
3. Any invasive species or noxious weed infestations resulting from this project will be monitored and treated in combination with control efforts that may take place within the project area.
4. The Forest Service will manage administrative access into the project area. The livestock permittees will be provided administrative access to roads and trails behind the locked gates in accordance with the terms and conditions of their Grazing permit and Annual Operating Plan.
5. Motorcycle squeeze gates will be installed on single-track trails to allow free passage of motorcycles, mountain bikes, horses, and hikers, while preventing access to ATV's and other larger vehicles.
6. Squeeze gates or OHV cattle guards will be installed where trails cross range fences to allow free passage of motorcycles, mountain bikes, horses, and hikers while preventing cattle from crossing the fence.
7. The Forest Service will provide periodic maintenance of the gates, control fences, and trail cattle guards in combination with maintenance of the overall trail system in cooperation with interested public user groups.
8. The Forest Service will enforce travel management regulations as part of the overall Uncompahgre National Forest travel plan and monitor the effectiveness of the road closure methods and designated trail use within the project area through the EMS process. Problems identified within the project area will be documented and corrected as soon as possible.
9. Additional signing will be installed to clearly identify trail routes and the types of uses and permitted seasons of use of those trails.

10. Additional educational kiosks with travel management and trail use etiquette information will be installed at trailhead parking areas. Parking areas will be monitored for the need for further improvements such as hardened, formal parking areas to reduce resource damage.
11. Do not cut trees with nest cavities during decommissioning activities. When cutting dead-standing trees, fallers should carefully examine selected trees for cavity nesting activity.
12. To avoid adverse impacts to the northern goshawk, activities should not occur within ¼ mile of an active nest from March 1 to July 31 if those activities would cause nest failure or abandonment.
13. Any road decommissioning or continued use of the old logging road in the head of Red Canyon Creek must maintain the integrity of the Kelley Creek ditch easement and any improvements that may occur at that location.

Comparison of Alternatives

The following table provides a summary of the effects of implementing each alternative. Information in the table is focused on the significant issues identified for this project.

Significant Issues	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Completion and Proper Use of Single-track Trails	Two proposed sections of Red Canyon trail remain incomplete. No physical decommissioning or structures to control unauthorized use.	Two proposed sections of Red Canyon trail remain incomplete. Signs, Low-level decommissioning, structures, and law enforcement used to control unauthorized use.	Upper section of Red Canyon trail rerouted to avoid steep problem area. Upper section of trail decommissioned. A combination of decommissioning, signs, structures, and law enforcement used to control unauthorized use.	Upper section of Red Canyon trail remains on 2002 ROD proposed alignment. Switchbacks constructed at steep section to meet FS design standards. Problem area rehabbed. A combination of decommissioning, signs, structures, and law enforcement used to control unauthorized use.

Red Canyon Trail Alignment	Not Affected.	Remains in current alignment but does not meet FS design standards.	Upper portion of trail is rerouted to old logging road on the bench above Red Canyon.	Constructed to FS design standards on 2002 ROD proposed alignment.
Livestock Permittee Access	Not Affected	Administrative access would be authorized through Annual Operating Plan of grazing permit. Full-size vehicle access provided to 8 of the 10 sheep camps in the area.	Administrative access would be authorized through Annual Operating Plan of grazing permit. Full-size vehicle access provided to 8 of the 10 sheep camps in the area.	Administrative access would be authorized through Annual Operating Plan of grazing permit. Full-size vehicle access provided to 8 of the 10 sheep camps in the area.

The following table provides a summary of the actions included in each of the alternatives as well as the environmental consequences associated with non-significant issues evaluated for this project.

Attribute	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Miles of Trail - Construction - Rehab	0 0	0 0	2.5 0.3	0.5 0.3
Miles of Road/Trail Decommissioning - Level 1 - Level 3 - Level 4 - Level 5 - Level 7	10.7 0 0 0 0	0 9.7 1.0 0 0	0 5.8 1.0 3.9 0.7	0 5.8 1.0 4.3 0
Number of Gates and Other Structures - Squeeze Gate - Full-size Gate - Cattle Guard Crossing	0 0 0	5 2 0	2 2 1	4 2 1
Miles of Single Track Trail	8.0	11.8	13.6	14.25
Consistency With Forest Plan and Uncompahgre NF Travel Plan	Several inconsistencies	Impacts to wildlife and recreation alleviated but likely to continue. Impacts to soil and vegetation continue.	Consistent with Forest Plan direction and 2002 ROD for Uncompahgre Travel Plan	Consistent with Forest Plan direction and 2002 ROD for Uncompahgre Travel Plan
Recreation and Travel Management	Conflicts present between motorized & non- motorized users. Integrity of single- track trails degraded by ATV	Conflicts slightly mitigated but likely to continue. Anticipate continued unauthorized use	Conflicts anticipated to be resolved. Reroute of upper Red Canyon trail less challenging of a	Conflicts anticipated to be resolved. Leaving upper Red Canyon trail in current/ proposed location

	use. Proliferation of unauthorized ATV trails.	and degradation of single-track trails from ATV use.	ride but a very sustainable trail location.	provides more challenging ride. Less effect on Hornet trail.
Management Indicator Species - Elk Habitat Effectiveness - Elk Calving	Adverse effect due to existing open road & motorized trail density, unauthorized use, and lack of seasonal restriction on Red Canyon trail.	Impacts to wildlife alleviated but likely to continue.	Immediate and long-term beneficial effects to habitat effectiveness through road/trail decommissioning and control of unauthorized use. Seasonal restrictions implemented more effectively in calving areas.	Immediate and long-term beneficial effects to habitat effectiveness through road/trail decommissioning and control of unauthorized use. Seasonal restrictions implemented more effectively in calving areas.
Effects to Soil and Vegetation	Current adverse impacts on steep section of upper Red Canyon trail.	Current adverse impacts continue.	Impacts mitigated through trail relocation and rehab.	Impacts mitigated through rehab and construction of new trail to Forest Service standards.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

Two additional alternatives were considered in this Environmental Assessment but were eliminated from further analysis. A brief description of each alternative and the rationale for eliminating it from further analysis is included in this section.

PAPA Alternative

During the public comment period, the group called Public Access Preservation Association (PAPA) submitted an alternative to the Forest Service proposed action, and requested that their alternative be incorporated into the analysis and released for public comment and review for this project.

The PAPA alternative would maximize recreational opportunities within the project area by establishing both single-track and ATV loop trail systems that utilize existing routes. No road or trail decommissioning would occur. Seasonal restrictions on motorized use within the project area would be modified to extend the season of use.

Under this alternative the Hornet trail #139.1A would remain unchanged. The Red Canyon trail would not be relocated, but additional work would be done on the ground to bring it up to Forest Service standards. This work includes the construction of a new single-track switchback trail on the steep section of the upper Red Canyon trail. The Red Canyon and Hornet trails would receive single-track gates and signage at FSR540/Hwy 90 south and 540/Hwy 90 north near Antone Springs campground.

A new ATV trail would be designated utilizing the existing old logging road that is now located on the bench above Red Canyon. This trail would continue across Red Canyon utilizing existing route FSR 512.1h and connecting with FSR 512 Hanks Valley road and 512.2c, FSR 540.1a over to old Hwy 90. Another ATV route would be added to the system utilizing FSR 549 to FSR 565 to form a loop off of the Divide road.

The trails in the Red Canyon and States Draw area would be open from June 1st through October 1st.

Rationale for Eliminating This Alternative from Further Analysis

Comments specific to the single-track trails included in the proposed action have been considered and incorporated into the development of Alternative 4. The suggested ATV loop that would utilize FSR 549, FSR 565, and the Divide road is part of the Base Transportation System identified in the 2002 ROD for the Uncompahgre National Forest Travel Plan and is already open to full-size vehicles, ATV's, motorcycles, bicycles, horses, and hikers. Limiting use of these roads to ATV's would not be consistent with the 2002 ROD or meet the access needs for management of the National Forest.

Other elements of the PAPA Alternative have been eliminated from further analysis. Additional ATV trails proposed within the project area and the modification of the seasonal motorized use restriction of single-track trails are not consistent with the 2002 ROD, and are beyond the scope of this analysis. In March of 2002 the Forest Service completed a six-year process to revise the travel plan for the Uncompahgre National Forest. The 2002 Record Of Decision (ROD) provides the Forest-Level Area and route-specific direction for travel management on the Forest. This EA addresses the environmental effects of implementing that decision within the project area. The addition of the proposed trails would require a similar NEPA process and public involvement effort to amend the 2002 ROD.

Authorize ATV Use of Existing Single-Track Trails

This Alternative would allow ATV's to travel on the same trails as motorcycles, bicycles, horses, and hikers. ATV's currently utilize many of these trails. Under this alternative there would be no effort to limit ATV use of the Red Canyon, Hornet, or Aspen trails, except during the seasonal closure of the Red Canyon trail. All other decommissioning activities included in the proposed action would occur to reduce the densities of open roads and motorized trails, and to eliminate unauthorized use of these user-developed and administratively closed routes.

Rationale for Eliminating This Alternative from Further Analysis

Opening the single-track trails to ATV's is not consistent with the 2002 Record Of Decision (ROD) for the Uncompahgre National Forest Travel Plan, and is beyond the scope of this analysis. Single-track motorized and mechanized trails are very limited on

the Forest. The conversion of the three single-track trails within the project area to ATV trails would require additional NEPA and public involvement to amend the 2002 ROD.

Chapter 3: ENVIRONMENTAL CONSEQUENCES

This chapter describes the physical, biological, social and economic conditions that may be affected by the Proposed Action and its alternatives. As directed by the CEQ implementing regulations for NEPA, the discussion focuses on resource conditions in the Red Canyon project area associated with the significant issues and concerns presented in Chapter 2. The description of the affected environment succinctly describes the environment of the area to be affected by the alternatives under consideration. Only those descriptions necessary to understand the effects of the alternatives are provided (40 CFR 1502.15).

In March of 2002 the Grand Mesa, Uncompahgre, and Gunnison (GMUG) National Forests completed a six-year process of public involvement and analysis to revise the Travel Plan for the Uncompahgre National Forest. The Travel Plan, its accompanying Final Environmental Impact Statement, Supplemental Environmental Impact Statement, and Record of Decision specify the overall direction under which the Forest is managed. It includes the Forest-level environmental analysis and rationale for the area-wide and route-specific decisions included in the Record of Decision.

This analysis is tiered to, and incorporates, the Uncompahgre National Forest Travel Plan in its entirety. This EA is not a general management plan for the area, nor is it a programmatic document. It is a site-specific link between the Travel Plan and the requirements established by NEPA that involves the analysis and implementation of management practices designed to achieve the goals and objectives specified in the Travel Plan. This EA will discuss the Proposed Action and its alternatives in a site-specific manner as required by NEPA.

This chapter is organized by selected environmental and social resources relevant to the project area and the decision to be made.

RECREATION & TRAVEL MANAGEMENT

There are a variety of public and commercial recreational activities occurring on the Uncompahgre Plateau within the vicinity of the project area. The Uncompahgre Valley Trail Riders and the West End Sledders are nonprofit organizations that are authorized to groom portions of the Divide Road and Highway 90 for snowmobile use. Snowmobile use on these roads is typically light to moderate during the average winter season (mid-December to early April).

Spring turkey hunting is a popular activity on the Uncompahgre Plateau. Access to the project area in April and May is dependent upon road conditions.

Summer recreation activities in the project area include dispersed camping, hiking, mountain biking, ATV and motorcycle riding, 4WD use, horseback riding, and fishing. The Iron Springs Campground is a primitive site located adjacent to Highway 90 that receives moderate use throughout the summer months.

The Uncompahgre Plateau is heavily-used by hunters during the August – November big game archery and rifle hunts. Roads throughout the project area have historically provided hunting and dispersed camping access.

Several commercial outfitter-guides operate within the area during the summer and fall months. Alternative Youth Adventures periodically conducts progressive backpacking trips for at-risk youth. San Juan Hut Systems is authorized to provide unguided mountain bike trips that operate on the Divide Road. Telluride Academy and Western Spirit offer mountain bike trips and camping trips on and along the Divide Road and Highway 90. Buckshot Outfitters, Colorado Trophies, Dark Timber Outfitters and Weimer Hunting Camp all offer commercially guided hunting trips in Red Canyon and the adjacent drainages.

In 2006, Colorado Christian, a nonprofit organization, conducted a 2-day archery event that was located on the States Draw Road near its intersection with the Hornet Trail. In 2007, the Bookcliff Rattlers Motorcycle Club are proposing to hold a timed enduro motorcycle race with up to 150 participants. The course would consist of three separate trail loops; the first segment of the race would utilize the Red Canyon Trail, Powerline Trail and the Hornet Trail. A noncommercial event called “Fat Freddy” draws large numbers of motorcycles to the Plateau each summer. Participants camp in dispersed sites and in Columbine and Iron Springs Campgrounds.

As previously stated, the 2002 ROD established the overall goals and objectives for travel management and the associated recreation activities on the Forest. Within the Final EIS for the Travel Plan numerous trail systems were designed to provide a variety of recreational opportunities, and were evaluated for effects to other resources and uses of the National Forest. Some trail systems were developed for ATV’s, jeeps, and full-size vehicles. Others were developed for single-track opportunities for motorized and non-motorized recreation.

The Red Canyon project area contains three single-track trails that are part of a larger system of trails that are open to motorcycles, bicycles, horses and hikers. These trails are considered to be a “premium” on the Uncompahgre Plateau because their existence is very limited. The proposed action and the alternatives are designed to complete and establish these trail systems for the uses approved in the 2002 ROD.

Effects

The proposed action and the alternatives would have no effect on winter recreation activities, or upon any of the established commercial recreation activities or special events authorized within or adjacent to the project area. These activities are currently within compliance with the 2002 Record of Decision (ROD) for the Uncompahgre National Forest Travel Plan.

Alternative 1 does not address any requirements for improvements on the ground to prevent unauthorized ATV or motor vehicle use in the project area. This current unauthorized use is causing an increase in damage on existing National Forest system trails and the natural resources in the project area. An escalation in user conflicts, erosion impacts, and trail maintenance needs have occurred in this area because of the proliferation of non-system routes in this area.

Under Alternative 1, the three motorized trails (Aspen, Hornet, Red Canyon) in this area will receive only minor trail maintenance work with no rehabilitation work on sections of the trails that are currently blown out to a two-track from unauthorized ATV use. These two-track sections continue to expand and the integrity and recreation experience of hiking or riding single-track trails is being lost each year.

Non-system routes as identified in the Alternative 1 map would be administratively closed to public travel. There would be no work done on the ground to physically decommission them. Through past experience it has been found that without physical barriers, compliance with the designated travel use is minimal. Trail degradation and resource damage is anticipated to continue.

With this alternative it will be difficult to obtain compliance with the travel management plan. Continued resource damage is likely to occur as there is no maintenance performed on non-system routes. Without decommissioning and rehabilitation of these non-system routes, their track will remain on the ground and will most likely be used.

General maintenance would continue to occur on the Hornet, Aspen and Red Canyon trails, but no additional work would be done to the steep section of the Red Canyon trail to meet Forest Service standards. There is considerable resource damage and trail degradation occurring on this section of the trail. There have been several comments from the public that this section of trail is dangerous and rideable by expert riders only. Although the Forest Service does not attempt to bring all trails to the same difficulty level, the level of expertise needed to ride a trail should not be determined because of deteriorating trail conditions.

Currently, unauthorized use by ATV's and full sized vehicles is occurring on the Red Canyon trail due to non-compliance with the Travel Plan. Signing has proven to have

little effect in addressing this issue and currently there are no squeeze gates or closure gates to help in preventing this type of unauthorized use. Without this type of groundwork and better travel management signing, it is doubtful that this problem will be alleviated to any significant extent. There will continue to be user conflict issues and additional trail impacts which will require greater maintenance needs.

Alternative 2 would utilize a combination of signing, gates, low-level decommissioning techniques, and law enforcement to implement the 2002 Record of Decision for the Uncompahgre National Forest Travel Plan. This alternative uses decommissioning levels 3 and 4, along with gates to implement the travel management plan. This type of decommissioning has shown to have a higher success rate in obtaining compliance with keeping recreationists on designated routes and adhering to the designated use of the trail. Routine trail maintenance work would be adequate to address the resource impacts associated with the designated trail use.

Placing gates in the locations indicated on the Alternative 2 map would help control unauthorized access by full sized vehicles and ATVs to areas and trails that are not designated for that type of use. This would aid in reducing resource damage and user conflicts.

The work required to construct the proposed sections of the Red Canyon trail will not be implemented in this alternative. The switchbacks needed to control the erosion and resource damage occurring on the steep section of the trail near the top of States Draw would not be done.

Under this alternative, the majority of work that would be done on the Red Canyon trail would be general maintenance. The required work needed to put in the switchbacks on the steep section of the current/proposed trail alignment, falls outside the scope of the 2002 ROD and could not be implemented without additional NEPA. Resource damage will continue to occur on this section of trail and the level of expertise to ride it will remain high. The lower proposed section of the trail currently meets Forest Service standards and will receive the necessary maintenance work to reduce erosion and stability problems.

With the implementation of the squeeze gates as indicated on the Alternative 2 map, unauthorized use of the Red Canyon should be reduced. This will help reduce user conflicts and expectations of a single-track trail experience will be more prevalent.

Alternative 3 would utilize a combination of signing, gates, road and trail decommissioning, trail relocation/construction and rehab. The relocation of the upper section of the Red Canyon trail would incorporate part of the Hornet trail and an old logging road. There would be minimal construction work needed on this reroute to bring it up to Forest Service standards.

As a result of rerouting the upper portion of the Red Canyon trail and utilizing a portion of the Hornet trail, the total mileage of single-track trail within the project would be

slightly higher than the other alternatives. However, it should be noted that the reroute would not offer the same technical experience that the old section does. This portion of the trail is highly sustainable and annual maintenance costs on this section would be minimal.

As in Alternative 2, decommissioning measures would reduce resource damage and user conflict by enforcing the Travel Plan and its recognized use of the area and trails.

The upper portion of the Red Canyon trail would be relocated as shown on the map of Alternative 3. The steep section of Red Canyon would be decommissioned and rehabilitated to mitigate the resource damage that is occurring. The new trail location will use a portion of the Hornet trail and an old logging road on the bench above Red Canyon. This proposed reroute places the trail in a better location for implementing travel management gates and preventing unauthorized use on the Red Canyon trail.

Most of this reroute is on the old logging road and is fairly level. It would not provide the user with a challenging or a true single-track experience.

Alternative 4 utilizes level 3, 4, and 5 decommissioning, signs, gates and law enforcement to implement the 2002 Record of Decision for the Uncompahgre National Forest travel plan. The construction of the Red Canyon trail would be completed on the current/proposed route.

The type of decommissioning and the sites where this would occur is indicated on the map for Alternative 4. This Alternative would reduce resource damage to the trails within the area by restricting travel to designated routes and improve compliance with the designated use for that area.

In the Record of Decision, there are two sections of the Red Canyon trail that are identified as proposed (please reference the 2002 Travel Plan Decision map). The lower proposed section currently meets Forest Service standards. The upper proposed section will require new construction to meet these standards. This is the steep section of the trail where current use is causing resource damage and degradation of the trail. In this alternative, the existing steep section would be replaced with switchbacks that would be constructed on the proposed/current trail alignment to meet Forest Service design standards. The switchbacks would add stability to the trail, reduce maintenance needs, and help control erosion and damage to soils and vegetation. This will continue to be a challenging section of the trail but will not have the negative impact on the resources as it does in its current location and condition.

The 0.3 miles of rehabilitation and placement of squeeze gates would prevent full-size vehicles and ATV's from using this trail providing the user a truer single-track experience.

RANGELAND RESOURCES

Throughout the analysis area livestock grazing takes place in the form of cattle and sheep use. Currently, three permittees are authorized to use two grazing allotments within the project area. A portion of the project area is within the Dry Creek/Red Canyon S&G allotment. The allotment is permitted for 1,000 ewes/lambs from June 26 to August 25 annually. He utilizes the 2 grazing units within the project area for approximately 30 days annually. There are several developed water sources, 9 established sheep camp locations and about 4 miles of fence adjacent to the Divide Road and on the south end of these grazing units within the project area. The permittee is authorized to use a pickup truck to move his sheep camp throughout the summer.

The Ponderosa C&H allotment includes the lower portion of the project area. This grazing allotment is permitted for 821 cow/calf pair from early June through mid-October, and is run by two separate permittees. Permittees ride and herd their livestock using horses, and ATV's where it is consistent with the travel plan. Moreover, various maintenance responsibilities are performed using ATV's. Trails within the analysis area are utilized by permittees to move livestock from pasture to pasture within each allotment, and trailing to and from the allotments and home ranches or transfer areas.

There are several fences, which cross through the project area. These fences have gates where trails cross. Often, gates are left open or fences are purposely cut to allow access through the trail systems. This allows livestock to enter restricted areas and permittees are required to expend resources to correct the unauthorized use. One objective of livestock management is dispersal over large areas as to not over-utilize individual areas. These trail systems can and have directed use to particular areas sometimes by design, and sometimes not.

Invasive species, which are known to occur in the area, and are scheduled for strategic treatment include; Houndstongue (*Cynoglossum officinale L.*), Whitetop/Hoary Cress (*Cardaria draba L.*), Spotted Knapweed (*Centaurea maculosa*), Russian Knapweed (*Centaurea repens L.*), Musk Thistle (*Carduus nutans L.*), Canada Thistle (*Cirsium arvense*), Common Burdock (*Arctium minus*). Other noxious species exist in the area that can be found on the Colorado State invasive species lists in categories C. The Forest Service is not currently strategically treating these species. The species targeted for treatments have many potential vectors for spread. Trail systems within the project area can be one of these. Motorcycle and ATV use can spread seeds by riding through populations within the analysis area, or by collecting them outside of the analysis area and depositing them on trail systems. Once deposited on disturbed soils, which is inherent with recreational trails, these species are genetically predisposed to settle the disturbed site.

Effects

Under Alternative 1 livestock grazing use and management of the grazing allotments within the project area would continue as currently authorized. Administrative access for

the operations and maintenance of both allotments would continue to be authorized under their current grazing permits and annual operating instructions.

Since this alternative would be to continue as is, it is expected that direct effects could include unauthorized use of permitted livestock and encroachment into adjacent allotments due to gates being left open and fences being cut. Trail systems that are out of specification per the Travel Management Record of Decision, would continue to be a vector for noxious weed spread. The steep section of trail off the point of States Draw Ridge would continue to allow access to livestock. This could result in injury to livestock and the economic resource base to grazing permittees. Indirect effects could result in rangeland being degraded due to unplanned use resultant from gates being left open and fences being cut. Moreover, noxious species spread could alter vegetation composition to the point at which livestock carrying capacity is reduced. Cumulative effects could potentially include a higher degree of watershed-wide noxious weed cover frequency as a result of timber sales, plantations, and prescribed burning that has occurred in the past in the project area. One future prescribed burn is planned that could additionally further this effect. Finally, the trail system allows many recreational activities to occur as a result of access. These activities such as hunting, camping, fishing could spread noxious weeds into new areas. Unplanned use as a result of open gates and vandalized range improvements, this could cause utilization in plantations and prescribed burns to exceed resource management goals.

Alternative 2 would utilize a combination of signing, gates, low-level decommissioning techniques, and law enforcement to implement the 2002 Record of Decision for the Uncompahgre National Forest Travel Plan. Motorized access within the allotment areas would be reduced from present levels through the use route decommissioning and gates to implement the travel management plan. However, the permittee on the Dry Creek/Red Canyon allotment would still be authorized to drive a full-size vehicle to 8 of the 10 sheep camps utilized. Two of the 10 sheep camps would be eliminated due to the installation of the squeeze gates on the Aspen trail, and would effectively deny the permittee the use of the Big Red unit of this allotment. Since this is a 15-day unit, it is estimated that the permittee might lose 10-15 days of sheep grazing with the elimination of this camp that cannot be compensated for elsewhere. If the camps were relocated, the distances the sheep would have to trail to get to the nearest camp location on a daily basis would increase significantly resulting in higher death losses, lower weight gains on lambs, increased risk of predation, and financial hardship to the permittee.

This effects discussion assumes that no unauthorized use by motorized vehicles will occur as a result of implementation of the travel plan. Given that, direct effects could include better control of cattle due to reduced traffic on trails that intersect fence lines. It is assumed that gates located off designated trails would remain closed and fences would not be cut. Rangeland management could be more controlled since livestock would not be scattering due to motorized traffic. Invasive species would persist on trails unless treated, but the transportation vector by motorized travel would be eliminated. Indirect effects could include continued deterioration of the steep section of trail off the point of States Draw Ridge. This could result in livestock injury. Moreover, soil disturbances here could

allow for further establishment of invasive species. Since trails would not be used by motorized equipment, vegetation would eventually move into the trail system and over time could fully revegetate the area. This vegetation could be endemic or exotic. Most species of concern listed above are not shade tolerant and therefore could be expected to decrease. Livestock trails would likely remain as they have for decades. Cumulative effects would be minimal, as vegetation in all disturbed settings would move into later seral stages.

The implementation of Alternatives 3 and 4 would have very similar effects to livestock grazing and noxious weeds within the project area. Motorized access would be reduced from present levels through the use of route decommissioning and gates to implement the travel management plan. Effects to the Dry Creek/Red Canyon permittee would be the same as those described in Alternative 2. Full-size vehicle access to sheep camps would continue to be authorized for 8 of the 10 sites currently utilized. The elimination of two camps in the Big Red unit would result in less available grazing area and a possible reduction in use.

Direct effects could include movement of noxious weeds in areas designated as open motorized travel. The noxious weed travel vector relating to motorized travel would be eliminated in areas closed and or decommissioned. Since cattleguards would be installed on open trails under these alternatives, livestock management activities for cattle would be unhampered by gates being left open. In addition, vandalism to range improvements should be reduced. Permittee access would be granted in annual operating instructions as administrative use under the travel plan, although routes previously used by permittees would be closed for revegetation purposes. Indirect effects could include those similar to Alternative 1 where routes remain open and Alternative 2 where routes are closed. One key difference is where revegetation of trail systems takes place; noxious weeds could be reduced or eliminated by the specific revegetation practice. Cumulative effects could include improved livestock management and result in a greater ability to meet resource management objectives in plantations and prescribed burns.

Under Alternative 4 the Red Canyon trail would remain in its current/proposed trail alignment. Use of the current trail system could result in direct effects of continued noxious weed spread via motorized travel. Although the steep section of trail off the point of States Draw Ridge would be revegetated and recontoured minimizing erosion effects and possibly noxious weed spread in that specific area. Direct effects to permittees would be the same as in Alternative 2. Indirect effects and cumulative effects would be the same as in Alternative 3.

FISH AND WILDLIFE

Threatened, Endangered, and Sensitive Species

As part of this analysis, the Forest Service prepared a combined Biological Assessment and Biological Evaluation (BA/BE) in conformance with Section 7 of the Endangered Species Act and Forest Service manual direction to determine the effects of the proposed

actions on federally listed threatened, endangered, proposed, candidate, and sensitive species and habitats. The BA/BE considered all species currently listed by the US Fish and Wildlife Service and the Regional Forester for the Rocky Mountain Region of the US Forest Service. Based on the habitats present and potentially affected by the proposed action, the list of species evaluated includes the threatened Mexican spotted owl and Canada lynx, as well as the Forest Service sensitive species flammulated owl, northern goshawk, Lewis' woodpecker, olive-sided flycatcher, boreal owl, American three-toed woodpecker, purple martin, pygmy shrew, American marten, fringed myotis, Townsend's big-eared bat, and Colorado River cutthroat trout.

The following table summarizes the list of species evaluated in detail and their relationship to the project area:

Threatened, Endangered, Proposed, Candidate, and Sensitive Species Evaluated in Detail		
Common Name	Scientific Name	Habitat(s) Potentially Used Within the Project Area
Birds		
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	Large canyons – Red, Little Red, Horsefly Creek
Flammulated owl	<i>Otus flammeolus</i>	Ponderosa pine forest, P/J
Northern goshawk	<i>Accipiter gentilis</i>	Aspen, aspen/conifer mix, ponderosa pine
Lewis' woodpecker	<i>Melanerpes lewis</i>	Open-grown ponderosa pine/oak, cottonwood riparian
Olive-sided flycatcher	<i>Contopus cooperi</i>	Mixed conifer, ponderosa pine/oak
Boreal owl	<i>Aegolius funereus</i>	Spruce-fir forest, mixed conifer/aspens with snags
American three-toed woodpecker	<i>Picoides dorsalis</i>	Spruce-fir forest with snags
Purple martin	<i>Progne subis</i>	Aspen forest with tree cavities
Mammals		
Canada Lynx	<i>Lynx Canadensis</i>	Spruce-fir forest, mixed conifer/aspens, aspen forest
Pygmy shrew	<i>Sorex hoyi</i>	High elevation wetlands in spruce-fir
American marten	<i>Martes americana</i>	Spruce-fir forest, mixed conifer/aspens with snags and down wood
Fringed myotis	<i>Myotis thysanodes</i>	Ponderosa pine, P/J, scrub oak, rock outcrops & cliffs
Townsend's big-eared bat	<i>Plecotus townsendii</i>	Mines, caves & buildings in woodlands & forests up to 9,500'
Fish		
Colorado River cutthroat trout	<i>Oncorhynchus clarki pleuriticus</i>	Red Canyon Creek
Amphibians, Insects, Reptiles, Plants		
No species identified		

Management Indicator Species

Management Indicator Species (MIS) are wildlife species that have been selected by a National Forest to represent the habitat needs of a larger group of species requiring similar habitats. MIS for the GMUG National Forests are identified in the 2005 Amended Species Assessment for the Amended Land and Resource Management Plan (Forest Plan). The GMUG National Forest has completed Species Assessments for MIS identified in the 2005 Amendment. These Assessments include the rationale for the selection of the MIS, information on biology, distribution, habitat relationships, suitable habitat on the GMUG, monitoring results, available information on population status and trend, and source references.

The following table displays the current list of MIS for the GMUG National Forests and their relationship to the project area:

GMUG National Forests MIS Species List May, 2005			
Common Name	Scientific Name	Habitat Association	Habitat or Species Present Within the Project Area?
Rocky Mountain elk	<i>Cervus elephus</i>	General habitats, habitat effectiveness	Yes
Abert's squirrel	<i>Sciurus aberti</i>	Ponderosa pine	Yes
Brewer's sparrow	<i>Spizella breweri</i>	Sagebrush	No
Northern goshawk	<i>Accipiter gentiles</i>	Aspen/conifer	Yes
Merriam's wild turkey	<i>Meleagris gallopavo</i>	P/J, oak, ponderosa pine, mtn. shrub	Yes
Pine (American) marten)	<i>Martes Americana</i>	Spruce-fir	Yes
Red-naped sapsucker	<i>Sphyrapicus varius</i>	Aspen	Yes
Common trout	<i>Oncorhynchus spp.</i>	Aquatic	Yes

The project area includes spruce/fir, aspen, ponderosa pine, and Gambel oak habitat types. MIS species that utilize these habitat types or may be present within the project area include the Rocky Mountain elk, Abert's squirrel, northern goshawk, Merriam's wild turkey, pine marten, and red-naped sapsucker. Perennial streams in Red Canyon and Little Red Canyon also support populations of common trout. Suitable habitat is not present within the project area for the Brewer's sparrow. There are no records of this species occurring within the project area.

Effects

The Forest Service in Region 2 utilizes the HABCAP model to calculate habitat capability and habitat effectiveness to determine compliance with Forest Plan direction.

Habitat capability is a function of forage value combined with cover value for all species. The model has specific habitat relationships tables for each species that defines forage values and cover values based on vegetation age class and structural attributes.

Habitat effectiveness is a function of the forage and cover values of the vegetation in combination with the effect of the density of open roads and motorized trails. It represents the decreased value of suitable habitat for deer and elk caused by the use of open roads and motorized trails. Elk and deer are displaced from suitable habitats as a result of the disturbance associated with motorized travel.

Habitat Capability

The proposed project will have no measurable effect on the existing forest vegetation species composition, age class, distribution, or habitat capability for the species evaluated. There will be no measurable direct, indirect, or cumulative effect to suitable Canada lynx habitat within the Spring Creek LAU.

The potential effects of the project would be associated with the physical disturbances associated with Level 3, 4, 5, and 7 road decommissioning. The Level 1 and 2 decommissioning will have no physical effect on the ground, other than to hopefully prevent vehicle use on these routes.

Level 3, 4, 5, and 7 road decommissioning will include areas of ground disturbance resulting from the construction of water bars, earth berms, and/or ripping the road bed. All areas of ground disturbance would be seeded with a mix of native species of grasses, forbs, and shrubs to establish vegetative ground cover and prevent the establishment of weeds. Earth berms and water bars would be constructed at strategic locations to prevent vehicle use and/or provide drainage off the road surface. With level 5 decommissioning, ripping and seeding would occur within the roadbed along the entire length of the road.

Road decommissioning activities also involve moving and placing rocks, slash, and other debris on to the roadbed to camouflage the road template and impede traffic. Rocks, slash, down wood, and/or brush adjacent to the road would be moved and placed on the roadbed. Additional individual trees may be cut down to provide material to place on the road. Individual trees that are cut down to provide material for road decommissioning could be utilized as nesting, denning, or roosting sites by many of the sensitive species and MIS evaluated. If occupied, this activity could result in mortality to individuals in the nest. To prevent this, design criteria are included to require tree fallers to carefully examine each tree before cutting to ensure there are no nests or dens present.

The disturbance associated with road decommissioning activities could have adverse effects to nesting goshawks. Goshawks are sensitive to human activities during the nesting and fledging periods. Repeated disturbance within proximity to active nests can lead to nest failure or abandonment. Surveys conducted within the project area have documented periodic use by goshawk. To avoid adverse impacts to nesting goshawks, additional surveys will be conducted prior to project implementation and any activities

within ¼ mile of an active nest would not occur from March 1 to July 31 if those activities would cause nest failure or abandonment.

Level 7 decommissioning includes the removal of an old culvert in the head of Red Canyon creek. This culvert was installed on an access road constructed for the States Draw aspen timber sale in 1992. Over time it has plugged up and filled in, and water flows over the road. The proposed action would remove this culvert and restore the stream channel to its original elevation. Red Canyon creek is a perennial stream supporting populations of Colorado River cutthroat trout. These fish do not utilize the upper end of Red Canyon creek where the culvert is located. Therefore, removal of the culvert and restoration of the stream channel would have no effect on the resident fisheries. This culvert would not be removed or changed under the other alternatives evaluated. Habitat conditions and capability would remain unchanged under these alternatives.

The Red Canyon trail and FSR 540.1a cross Red Canyon at two points that are suitable habitat for the Mexican spotted owl. Both routes are currently used to a large degree by hikers, ATV's, and motorcycles, and to a lesser extent by bicycles, horses, and full-size vehicles. Compliance with the seasonal restriction on motorized use of the Red Canyon trail is minimal. Recreational activities may affect Mexican spotted owls directly by disturbing nests, roosts, or foraging sites. The magnitude of an activity's impact on spotted owls is a combination of its location, intensity, frequency, and duration rather than simply its character. The proposed action would limit use of the Red Canyon trail to the uses approved in the 2002 ROD, and enact the seasonal restriction on motorcycles. The proposed action would decommission route FSR 540.1a and close it to all motorized and mechanized use. In combination, this would reduce motorized recreation activities within the Red Canyon and the disturbance to suitable habitat for the Mexican spotted owl.

The Red Canyon motorcycle trail crosses Red Canyon Creek at a point where cutthroat trout occur. The trail crossing fords the creek at a shallow spot that is roughly perpendicular to the stream channel. This crossing was evaluated for potential impacts to fish habitat and it was determined that this stream crossing can be designed to alleviate any impacts to cutthroat trout.

The proposed project includes Level 3 decommissioning of an old road (FSR 540.1a) that crosses Red Canyon Creek about one mile down stream from the Red Canyon trail crossing. Even though it is administratively closed to motorized use, motorcycles and ATV's are currently using this route to travel from Old Highway 90 to the Hanks Valley road. The route enters the canyon on steep side slopes, crosses the riparian zone, and fords the creek at a spot that is passable at low water. This crossing has not been evaluated for potential impacts to fish habitat. The proposed decommissioning activities would occur outside the riparian zone to prevent any disturbance to soils, vegetation, and the stream channel. Decommissioning would be designed to eliminate the existing motorized use of this route.

Habitat Effectiveness

A number of studies have established the consistent year-round influence of motorized vehicles on elk use of preferred habitats. In these studies it has been documented that elk use declines in areas adjacent to open roads and motorized trails. The area of influence has been reported as ranging from 0.25 to 1.8 miles, depending on the amount and kind of traffic, quality of the road, topography and location of the road, and density of the cover adjacent to the route. Habitat effectiveness represents the decreased value of suitable habitat for elk caused by the use of open roads and motorized trails. Elk habitat effectiveness is adversely affected by the presence of roads and trails that are open to vehicular traffic. In general, habitat effectiveness decreases in proportion to the amount of adjusted open (motorized) routes per square mile.

Forest Plan standards and guidelines relative to habitat effectiveness are included in Transportation System Management pages II-76 through III-81. The General Direction in the Forest Plan includes: Manage public motorized use on roads and trails to maintain or enhance effective habitat for elk. The Standard and Guideline is to manage toward an objective level of habitat effectiveness for elk within each fourth order watershed that is at least 40% (i.e. 40% or above). This objective is increased to 60% within Management Area 6B. Also, as stated in the Forest Plan, habitat effectiveness will be determined by evaluating, in combination, hiding and thermal cover, forage, road density and human activity on roads. The HABCAP model accomplishes this analysis.

The HABCAP model was used to determine elk habitat effectiveness for each of the alternatives. The following table summarizes the results:

Alternative	Adjusted Open Road Density	Road Effect	Habitat Capability Index
1-Baseline	0.89	0.63	0.41
2-No Action	0.68	0.69	0.45
3-Proposed Action	0.69	0.69	0.45
4-Full Implementation	0.68	0.69	0.45

Alternative 1 – Baseline represents the current situation within the project area. Open road/motorized trail densities are currently high. Numerous user-developed routes have been created within the project area. ATV use of single-track trail routes, closed roads, and user-developed routes is high. Full-size vehicles are utilizing some of the same routes that ATV's are. The other alternatives would initiate actions to implement the 2002 ROD for the Uncompahgre National Forest Travel Plan, and would lead toward attaining the management objectives for elk calving and improvement of habitat effectiveness and security within the project area.

Alternatives 2, 3, and 4 would reduce open road densities, and establish a system of single-track trails that are only utilized by the uses authorized in the 2002 ROD. The difference between Alternatives 2 and 4 are the methods of decommissioning applied to the routes identified. An assumption was made that the effectiveness of Level 3 decommissioning is the same as Levels 4 and 5. Alternative 2 also assumes that the Red

Canyon trail would continue to be used even though some sections of the trail do not meet Forest Service specifications. Therefore, the adjusted open road density is equal for these alternatives.

Alternative 3 would reroute the upper portion of the Red Canyon trail, which slightly increases the total mileage of single-track trail and adjusted open road density within the project area. In every alternative, it is also assumed that the installation of squeeze gates on the single-track trails, and the level of decommissioning applied to each route identified will effectively control unauthorized use.

Based upon this analysis, Alternatives 2, 3, and 4 would improve the existing elk habitat effectiveness. The effect of the adjusted open road density would be slightly higher in Alternative 3 than in Alternatives 2 and 4, but overall habitat effectiveness would be the same.

The Red Canyon trail bisects areas utilized for elk calving, and a relatively unroaded canyon that provides security during the fall hunting seasons. Under the current situation, ATV's, motorcycles, bicycles, horses and hikers utilize this trail during the entire season. There is no compliance with the seasonal restriction on motorized use. To avoid these calving areas, and enhance the quality of this security area, motorized use of the Red Canyon trail is restricted. The Red Canyon trail is open to motorcycles from the Fourth of July weekend through Labor Day weekend. The rest of the year it is closed to motorcycles, but open to non-motorized use. The Hornet trail and Aspen trail do not have motorized restrictions because they are located outside these important elk habitat areas, within the influence zone of the Divide road and Old Highway 90.

Determination

Federally Listed Species

The proposed action will have *no effect* upon the Mexican spotted owl.

Rationale:

- The proposed action will have no measurable effect on the existing forest vegetation species composition, age class, distribution, or habitat capability for the Mexican spotted owl.
- Repeated surveys on the Uncompahgre National Forest, including the Red Canyon and Little Red Canyon, have not located any Mexican spotted owls.
- Recreation activities would not occur in proximity to any known Mexican spotted owl nesting, roosting, or foraging sites
- Indirect effect to prey species is not anticipated to be measurable or significant.

The proposed action *may effect, but is not likely to adversely affect* the Canada lynx.

Rationale:

- The proposed action is not located within any Landscape Linkage areas identified by the Forest Service and US Fish and Wildlife Service.
- The proposed action establishes approved summer recreation activities on designated roads and trails. The project will have no influence on winter recreation activities within the Spring Creek Lynx Analysis Unit (LAU).
- There will be no measurable direct, indirect, or cumulative effect to suitable Canada lynx habitat within the Spring Creek LAU.

Forest Service Sensitive Species

The proposed action will have *no impact* upon the northern goshawk, olive-sided flycatcher, pygmy shrew, American marten, and Colorado River cutthroat trout.

Rationale:

- The project area is within the known distribution of the species. However, none of the species have highly limited distribution or are known to occur only within the project area.
- The proposed action will have no measurable effect on the existing forest vegetation species composition, age class, distribution, structure, or habitat capability for the species evaluated.
- Additional surveys would be done prior to project implementation to determine the presence of active goshawk nests within the project area. No activities would occur within ¼ mile of an active goshawk nest from March 1 to July 31 if those activities would cause nest failure or abandonment.
- Colorado River cutthroat trout present in Red Canyon Creek are not identified as a conservation population in the Conservation Agreement and Strategy for the Colorado River Cutthroat Trout (*Oncorhynchus clarki pleuriticus*) in the States of Colorado, Utah, and Wyoming (April 2001). However, an evaluation of the two trail/route crossings of Red Canyon Creek would occur to determine potential impacts to fish habitat and the need for additional design criteria for the Red Canyon trail crossing to avoid adverse impacts.
- Mitigation measures are recommended to avoid occupied habitats during nesting and fledging periods.

For the flammulated owl, Lewis' woodpecker, boreal owl, northern three-toed woodpecker, purple martin, fringed myotis, and Townsend's big-eared bat, the proposed action *may adversely impact individuals, but is not likely to result in a loss of species viability on the planning area, nor cause a trend toward federal listing or a loss of viability range wide.*

Rationale:

- Potential habitat for the species evaluated is present within the project area that could be affected by the proposed action.
- The project area is within the known distribution of the species. However, none of the species have highly limited distribution or are known to occur only within the project area.
- Potential impacts could occur to individuals that may be actively nesting or roosting within individual trees that are selected for additional material for road decommissioning.
- Mitigation measures are recommended to avoid adverse impacts to these species by requiring fallers to carefully examine selected trees for cavity nesting activity, and not cutting trees that are currently occupied.

Management Indicator Species

As described above, the proposed project will have no measurable effect on existing vegetative species composition, age class, or distribution. Habitat condition, trend, and capability for the species evaluated in this assessment will not change as a result of the proposed action. The proposed project would have a substantial beneficial effect to elk habitat effectiveness.

Based upon the expected effects to habitat conditions and capabilities within the project area, implementation of the proposed action is not anticipated to have any adverse impacts upon the species evaluated. However, the proposed project is expected to have beneficial effects to the Rocky Mountain elk.

The effects of the proposed action are not anticipated to result in any changes to population numbers at the project or Forest scales. The project may temporarily displace or alter how individuals use portions of the project area through habitat alteration and/or disturbance, but these effects would be temporary in nature. Longer-term effects to elk distribution are anticipated as elk habitat effectiveness on public lands is improved, and elk are encouraged to use the habitats they desire on the National Forest. This effect is not anticipated to increase elk populations within the Game Management Unit, but would affect herd distribution.

SOILS AND WATERSHED

The existing and proposed travel routes traverse a number of different landforms, slopes and soils situations. These range from the relatively smooth upper portions of the Uncompahgre Plateau, to the upper, lower and mid Canyon side-slopes of Red Canyon, and Little Red Canyon. There are various relatively level benches on the canyon side slopes that are also traversed. There is a range of soils and soil characteristics that are also involved in these travel routes. There are at least 7 different soil mapping units identified along these routes (Uncompahgre Soil Survey). All of the soils involved have formed from the sandstones, and inter-bedded sandstones and shales on this portion of the Plateau. The soil characteristics run the gamut of coarse to medium textured soils on the upper portions of this area, to rather deep, productive medium and fine texture soils on the lower portions of this area. The soils characteristics on the steeper, canyon side slopes are very variable, but generally are medium textured, shallow soils containing large amounts of sandstone fragments of varying sizes. The risk for soil loss from these unsurfaced roads and trails varies depending on soil textures, amount of coarse fragments the soil contains and the slope. On soils that contain less than 15% coarse fragments, there is a slight to moderate risk for erosion on slopes up to 15%, and a high risk on slopes above 15%. With soils contain more than 15% coarse fragments the risk is low to moderate on slopes up to 25%, with a high risk on slopes above 25%.

These soils have been impacted by these routes and travel ways over the years. Some have been scraped and bladed to define a running surface, others have just developed as a route over the years just through use, with no awareness for water runoff conditions or erosion risks. These routes have been used by trucks, ATVs motorcycles, older jeeps, horses and foot travel. These activities have resulted in a situation of bare ground, compaction and a reshaping or displacement of the soil surface, and on the many of the steeper stretches, have experienced a loss of soil material.

A variety of laws, orders, management measures and project design criteria direct the Forest Service to manage the lands it administers with the overall Land and Water Stewardship always in mind. The Forest Service must maintain a watersheds ability to have proper hydrologic function, or the ability to act as a “sponge and filter”. This is protected by maintaining good vegetation, good ground cover, closing and restoring unneeded roads and travel routes, and minimizing connected disturbed areas. This project will be a step toward keeping a Land and Water Stewardship vision in the management of these lands.

Effects

This project will affect the already impacted soil in a variety of ways. Levels 1-3 have little direct impact to the soil. It is the intent of these three levels to control the amount of use these routes would have. No water control or restoration would occur. Level 4 may involve some soil disturbance for the construction of fencing and moving of rocks. Minor amounts of restoration may occur in the planting of trees or shrubs. Level 5 will involve heavy equipment being used to rip the soil, and in the construction of water

control devices (water bars). This action should reduce soil compaction, increase water infiltration rates, and decrease runoff. Water will be controlled, so erosion should be minimized. A protective vegetative layer will be established through the seeding of native seeds. Level 7 would involve a piece of heavy equipment being used to remove cross drainage structures that would no longer be needed. This could result in fresh soil material being in a drainage way for a short period of time. Level 8 would result in fresh soil occurring in and around a stream crossing for a short period of time. A 404 permit from the Corps of Engineering will be needed to implement this level of decommissioning.

Alternative 1 is developed to describe the current condition on the ground, and the administrative actions necessary to comply with the 2002 Record of Decision (ROD) for the Uncompahgre National Forest Travel Plan. As shown on the map of Alternative 1, existing routes within the project area include the Base Transportation System, three single-track trails, and a variety of other routes. There would be no change to the impact to the soil in these situations.

Under this alternative, all other routes identified as not necessary would be administratively closed to public travel. All 10.7 miles of the other existing routes that have been identified as not necessary are identified on the map would be removed from the transportation atlas and Motor Vehicle Use Map. This means that those routes will have a chance to recover slowly, with no regular disturbance or travel occurring on them. Grass, forbs, shrubs and trees will gradually fill in these bare areas. This may take 10+ years, and may provide an environment for weeds to grow. No work would be done on the ground to physically decommission the routes to prevent unauthorized use. No fresh soil will be disturbed.

With no maintenance or efforts to control runoff or erosion, the steeper portions of the trails will continue to have rapid runoff and continue to lose soil material.

Alternative 2 would utilize a combination of signing, gates, low-level decommissioning techniques, and law enforcement to implement the 2002 Record of Decision (ROD) for the Uncompahgre National Forest Travel Plan.

With this alternative only minor amount of soil disturbance would occur. This would be with the placement of 5 squeeze gates, two full sized gates, and assorted signs. These disturbances will be seeded with adapted native seed after installation. This alternative would involve 9.7 miles of level 3 decommissioning and 1.0 miles of level 4 type decommissioning.

As in Alternative 1, with no maintenance or efforts to control runoff or erosion, the steeper portions of the trails will continue to have rapid runoff and continue to lose soil material.

Alternative 3 would utilize a combination of signing, gates, level 3, 4, 5, and 7 road and trail decommissioning, trail relocation/construction and rehab, and law enforcement to implement the 2002 ROD for the Uncompahgre National Forest travel plan.

This alternative does involve actual soil impacts, but these impacts should improve water infiltration, and reduce runoff, by ripping and breaking up soil compaction in these areas. This will provide a more hospitable environment for seedling growth and establishment. Vegetative recovery should be in a matter of a few years, rather than a decade. Steep trail sections will be stabilized, and runoff controlled, so soil loss should not continue to occur.

Alternative 4 would also utilize a combination of signing, gates, trail construction and rehab, road and trail decommissioning, and law enforcement to implement the 2002 Record of Decision (ROD) for the Uncompahgre National Forest travel plan. Roads and trails within the project area would be managed and maintained for the types of uses and seasons specified in the 2002 ROD. Construction of the Red Canyon trail would be completed on the current/proposed route to bring it into Forest Service design standards. This alternative would impact the soil by having total of 5.8 miles of Level 3 decommissioning occurring to close existing routes to unauthorized travel. There would be a total of 1.0 miles of Level 4 decommissioning also. These activities, as discussed in the other alternatives, present very little impact to the soil resource. However these activities will close those uses to regular travel, so continued impacts to these areas will be reduced.

This alternative does propose to have new trail reconstruction to occur on 0.5 miles. This would be a new soil disturbance, along with 0.3 miles of trail rehab work that would be needed to have the trails meet Forest Service standards.

This alternative also proposes 4.3 miles of level 5 decommissioning to occur. Level 5 decommissioning includes ripping, disking, and seeding the full length of the roadbed, and placing debris such as rock and slash on the road to further impede traffic and camouflage the road template. Earth barriers and water bars would also be constructed to impede traffic and provide drainage. Areas of disturbed ground would be seeded with a mix of native plant species. This activity should stabilize the steeper sections of trails, which will control concentrated runoff and accelerated soil loss. The ripping, and discing of these 4.3 miles will increase soil infiltration rates and decrease detrimental soil compaction, which will add to the rapid vegetative recovery of these sites. This will be beneficial to the land and watershed health of the area. Whenever disturbed areas are restored and runoff reduced the health of the watershed benefits. This will assist in improving the overall hydrologic function, or the ability for the land to act as a “sponge and filter”.

This alternative does the most towards keeping a Land and Water Stewardship vision in the management of these lands.

HERITAGE RESOURCES

The Forest must comply with the 1992 amendments to the National Historic Preservation Act (NHPA) wherein it is stated that federal agencies must consider the effects of all actions on heritage resources. The Forest will comply with the NHPA Section 106 Implementation Regulations (36 CFR 800) by implementing a strategy to address location and protection of heritage resources which may be affected by travel management. Specific changes in route and area closures will be implemented by a “travel order”, which in turn will initiate the appropriate level of evaluation and consultation concerning effects to heritage resources.

A heritage database records search was conducted identifying all previously conducted surveys and all heritage sites recorded along the proposed travel routes. An intensive on the ground survey was completed on all routes proposed for either ground disturbing activities or travel management changes.

On November 6-8, 2001 and October 14 and 17, 2005, Forest Service personnel conducted an intensive survey for heritage resources for the Red Canyon Travel Analysis Area. This survey covered those routes subject to travel designation changes or requiring any ground disturbing activities. The survey was not alternative-specific, and covered all actions in all alternatives. No sites were located during the survey and no sites were recorded in previous surveys.

Based upon this survey and evaluation, there will be no effect to any heritage resources.

ECONOMIC EFFICIENCY

To describe project level analyses, the Forest Service uses the term “cost efficiency analysis” when all inputs and outputs cannot be measured in dollar terms. The cost efficiency analysis deals separately with market and non-market outputs and effects. All outputs that can be assigned monetary values undergo traditional economic efficiency analysis. Alternatives are compared on the basis of criteria such as the highest ascertained environmental, economic, and social impacts. These criteria are itemized and either quantified or qualified to the extent possible.

This economic efficiency analysis considers the revenues, benefits, and costs associated with each alternative. Present net value is based on benefits that will be produced during the life of the project, and costs including capital investments. All benefits and costs are discounted 4% annually to bring them into a common base year. This allows a direct comparison of investments that may be required. The useful life of all investments are considered to be at least 10 years.

The figures for Forest Service Present Net Value (in dollars) and Permittee Present Net Value are found in the following table:

Alternatives	FS/All Others	FS Only	Permittee 1	Permittee 2
1	\$1,183.23	-\$3,210.00	\$9,110.90	-\$4,717.67
2	-\$158,958.34	-\$144,805.34	-\$9,435.33	-\$4,717.67
3	-\$154,117.37	-\$149,237.49	-\$9,435.33	\$4,555.45
4	-\$143,273.55	-\$152,384.44	\$4,555.45	\$4,555.45

The comparison summary indicates that Alternative 1 has the only positive value for all partners (Forest Service and Permittees). However, no Alternative provides a positive Present Net Value to the Forest Service alone. The cost to the permittees to manage the allotments is reflected in the Permittee’s Present Net Values. These are based on assumptions that include days for monitoring, moving livestock, hauling salt, maintaining range improvements, etc. The cost to the Forest Service include the costs associated with the number of miles of each type of decommissioning, the number of gates, cattle guards, and other structures, the annual costs of maintaining the open trails, decommissioned routes, and structures, and other administrative costs. Assumptions used for all Alternatives are the same.

Effects

Alternative 1 maintains the status quo with the exception that maps will be updated to reflect closed routes. There are some costs associated with this process. Secondly, there are some costs and benefits to permittees due to access and range management issues.

Alternative 2 will implement the Travel Plan with low level decommissioning and structures that will require some investments and maintenance to standard. Both the Forest Service and Permittees will incur costs. There is no net benefit.

Alternative 3 will implement the proposed action; costs to the Forest Service will be greater than Alternative 2, but permittee #2 will incur a positive Present Net Value.

Under Alternative 4, costs to the Forest Service will be the greatest but both permittee #1 and #2 will incur positive Present Net Values.

Implementation of any of the alternatives considered in this Environmental Assessment would not be expected to contribute to significant cumulative effects. Ongoing recreational uses would not have any cumulative effects on economic efficiency analysis considerations of the proposed actions.

In summary, Alternatives 1 and 2 would not improve non-market outputs and have the potential to further limit or degrade any number of them. Potential changes in plant communities could impact ecosystem function and condition, which in turn could impact species and numbers of wildlife and livestock use in the analysis area for habitat and foraging needs. Moreover, the degraded conditions in some areas will promote adverse

public opinion concerning this kind of and other uses on public lands, so the risk of losing non-market outputs is greater still. Alternatives 3 and 4 have the most potential to improve and sustain non-market outputs, although Alternative 4 would accomplish this at a much-reduced rate than would Alternative 3.

Chapter 4: AGENCIES AND PERSONS CONSULTED

FOREST SERVICE INTERDISCIPLINARY TEAM:

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Craig Grother, Wildlife Biologist
Brian Hoefling, Range Conservationist
Kelley Liston, Range Conservationist
Terry Hughes, Soil Scientist

FEDERAL, STATE, AND LOCAL AGENCIES:

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Wayne Quade, Civil Engineering Technician - USFS
George Goehl, Engineer - USFS
Bob McKeever, Archeologist – USFS
Jeff Burch, NEPA Coordinator - USFS
Brian Wilson, Road and Bridge Department – Montrose County
Mark Caddy, District Wildlife Manager – Colorado Division of Wildlife
Tony Bonacquista, District Wildlife Manager – Colorado Division of Wildlife

OTHERS:

Tom Thomas, President – Public Access Preservation Association
Walt Blackburn, President – Thunder Mountain Wheelers ATV Club
Glenn Neigenfind – Motorcycle Trail Riders Association, Montrose
Todd and Roxie Stewart, Jim Stewart, Sam and Jo Marie Stewart, livestock permittees – Ponderosa C&H Allotment
Fritz Donnelly, permittee – Dry Creek/Red Canyon S&G Allotment

Chapter 5: Maps and References

A set of four maps is included in this Environmental Assessment that depict each Alternative evaluated in detail.

The following documents were referenced for this analysis:

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