ENVIRONMENTAL ASSESSMENT

GUNNISON TRAVEL INTERIM RESTRICTIONS

Portions of Gunnison, Hinsdale, Delta,
Montrose, and Saguache Counties
Colorado

AUGUST, 2000

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CHAPTER I

INTRODUCTION • PROPOSED ACTION • PURPOSE AND NEED • DECISIONS TO BE MADE • SCOPING/ISSUES

INTRODUCTION

This Environmental Assessment (EA) documents the public involvement and environmental analysis for a proposal to restrict travel on the Gunnison National Forest, including the Gunnison and Paonia Ranger Districts, as well as portions of the Public Lands managed by the Bureau of Land Management's (BLM) Uncompahgre and Gunnison Field Offices. This EA was prepared jointly by the Forest Service and BLM.

Map 1 is a vicinity map and Map 2 portrays the area affected. Also, attached to this EA is a ½ inch-to-the-mile scale map indicating the affected area and showing inventoried roads and trails (see Transportation section of Chapter 3 for discussion). In this EA, the National Forest System lands (managed by the Forest Service) and public lands (managed by BLM) being considered will be referred to as the Gunnison Travel Analysis Area, abbreviated GTAA.

GTAA:
Gunnison Travel Analysis Area

PURPOSE AND NEED FOR THE PROPOSAL /PROPOSED ACTION

Much of the GTAA is open to motorized and mechanized vehicle travel off established roads and trails. Outside of Wilderness areas and other restricted areas, off-route wheeled-vehicle travel is currently allowed on over 1.5 million acres (72%) of the 2.2-million acre GTAA.

	Forest Service	BLM	Total
Acres in GTAA	1,524,489	651,646	2,176,135
Acres open to travel off roads and trails	960,546	603,884	1,564,430
Percent of lands open to travel off roads and trails	63%	93%	72%

During scoping we called this our "green to yellow" proposal because open travel areas on the Gunnison National Forest (NF) and BLM-Gunnison Field Office lands are shown on the current Gunnison Basin Area Visitor Map in green and restricted areas are shown in yellow and pink. The map does not differentiate between open and restricted areas for lands managed by the BLM-Uncompahgre Field Office. A large transportation system,

comprised of approximately 2,600 miles of road on NF and 1,533 miles on BLM, and 1,300 miles of National Forest trails, is currently in place.

In the last decade, unanticipated increases in motorized use has occurred on these public lands. The popularity of off-highway vehicles (OHVs), including sport-utility vehicles and motorcycles has steadily increased, while the popularity of ATVs (all-terrain vehicles, also known as "four-wheelers") has increased dramatically. Users of these smaller four- and six-wheel ATVs have gained and created access to areas that were until now inaccessible by full-sized 4WD vehicles. In addition, mountain biking in certain areas has increased dramatically. Riders of these aggressively treaded bicycles are pioneering routes of their own and impacting fragile environments. The capability of these vehicles to go nearly anywhere, coupled with their increasingly widespread use, has resulted in hiking and game/livestock trails being converted to ATV trails. New routes are being pioneered in places where none have ever existed before. This proliferation of access is changing the face of public lands.

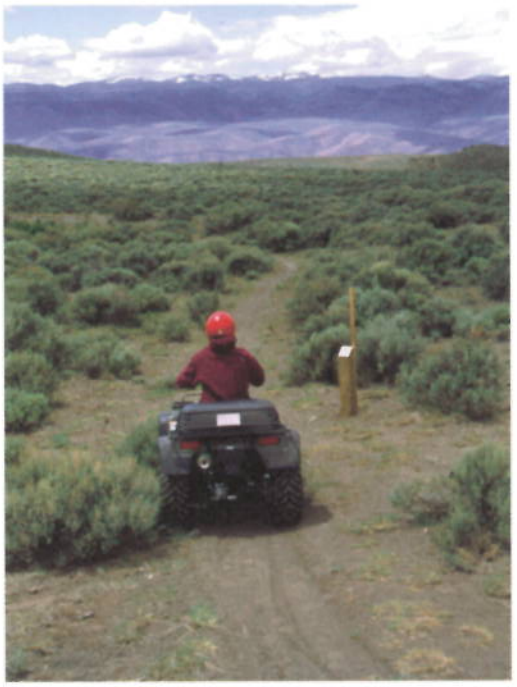


Photo 1. An ATV using one of the many ATV trails in the GTAA.

Conflicts among users have developed. The recreation experience sought by some is incompatible with area-wide access by all. Increased travel and new access to remote areas is altering the recreation experience. It is also affecting wildlife, soil, water, and vegetation resources. Under the current travel management direction, motorized and mechanized use in open travel areas has become increasingly difficult to manage.

While the Grand Mesa, Uncompahgre, and Gunnison National Forests (GMUG) will soon start revising its Forest Land and Resource Management Plan, a decision on this plan may not be reached for several years. Both the public and Forest Service field personnel have expressed a desire for some interim direction to help curb increasing resource degradation and enhance the recreation experience within the GTAA. Decisions made by the Forest Service through this process will be consistent with the existing Forest Plan, and will require no amendment.

The BLM has identified the same need to address this issue. Decisions made by BLM to change existing OHV designations will require amendments to the existing Resource Management Plans (RMP) for the Gunnison and Uncompahgre Field Offices. Notice to that effect has been published in the Federal Register and is discussed in more detail below under Public Involvement.

The Proposed Action

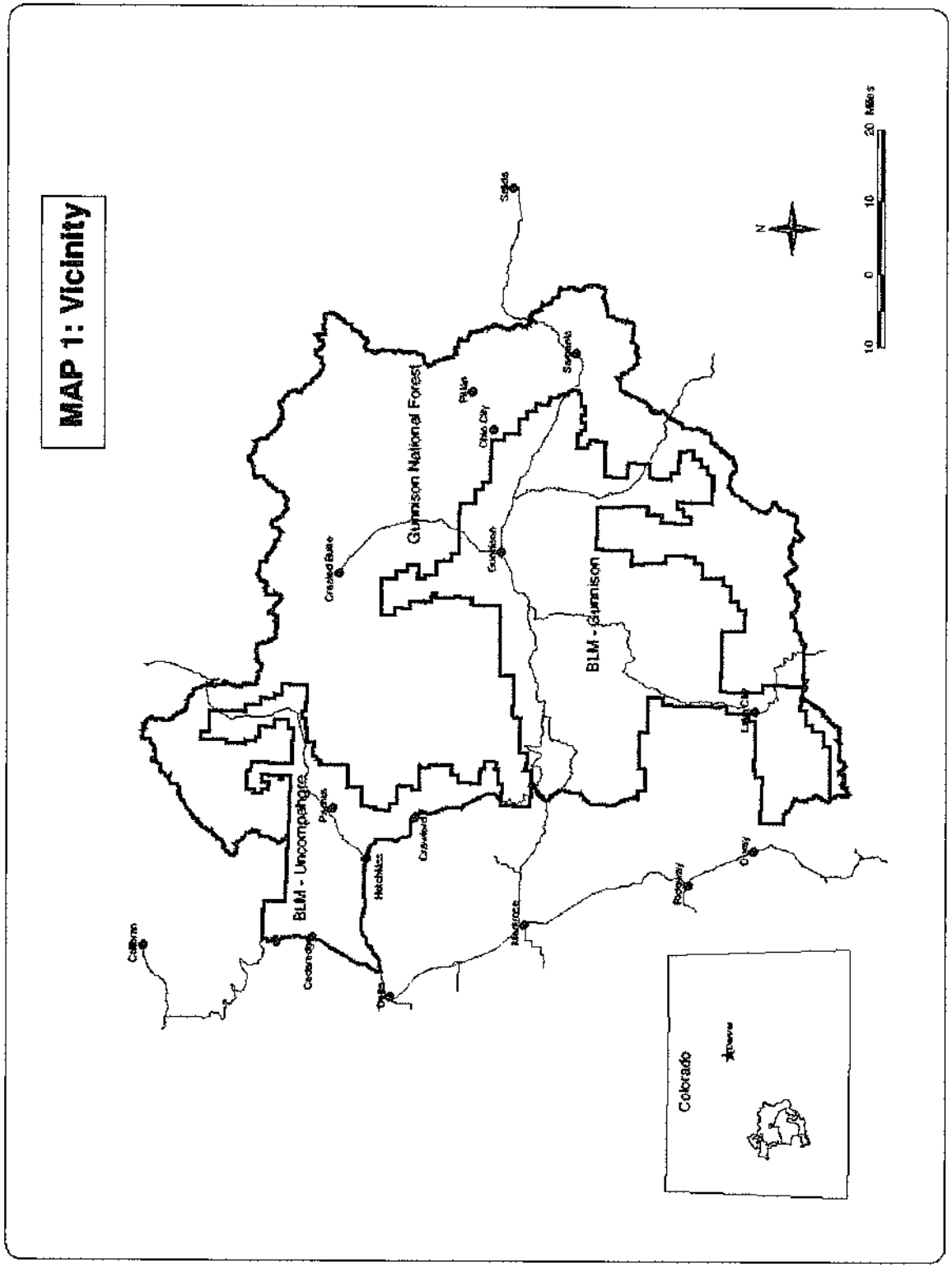
Where not already restricted, the Forest Service and BLM are proposing to eliminate cross-country, off-route travel by all wheeled modes of travel; that is, to limit all OHV (ATVs, motorcycles, and four-wheel-drives) and mountain bike use to existing, established routes on the Gunnison National Forest and specified BLM areas. Current use of existing established roads and trails would be allowed to continue. Map 2 shows the area where new travel restrictions would apply. A more detailed definition of "existing routes" is provided in the following pages.

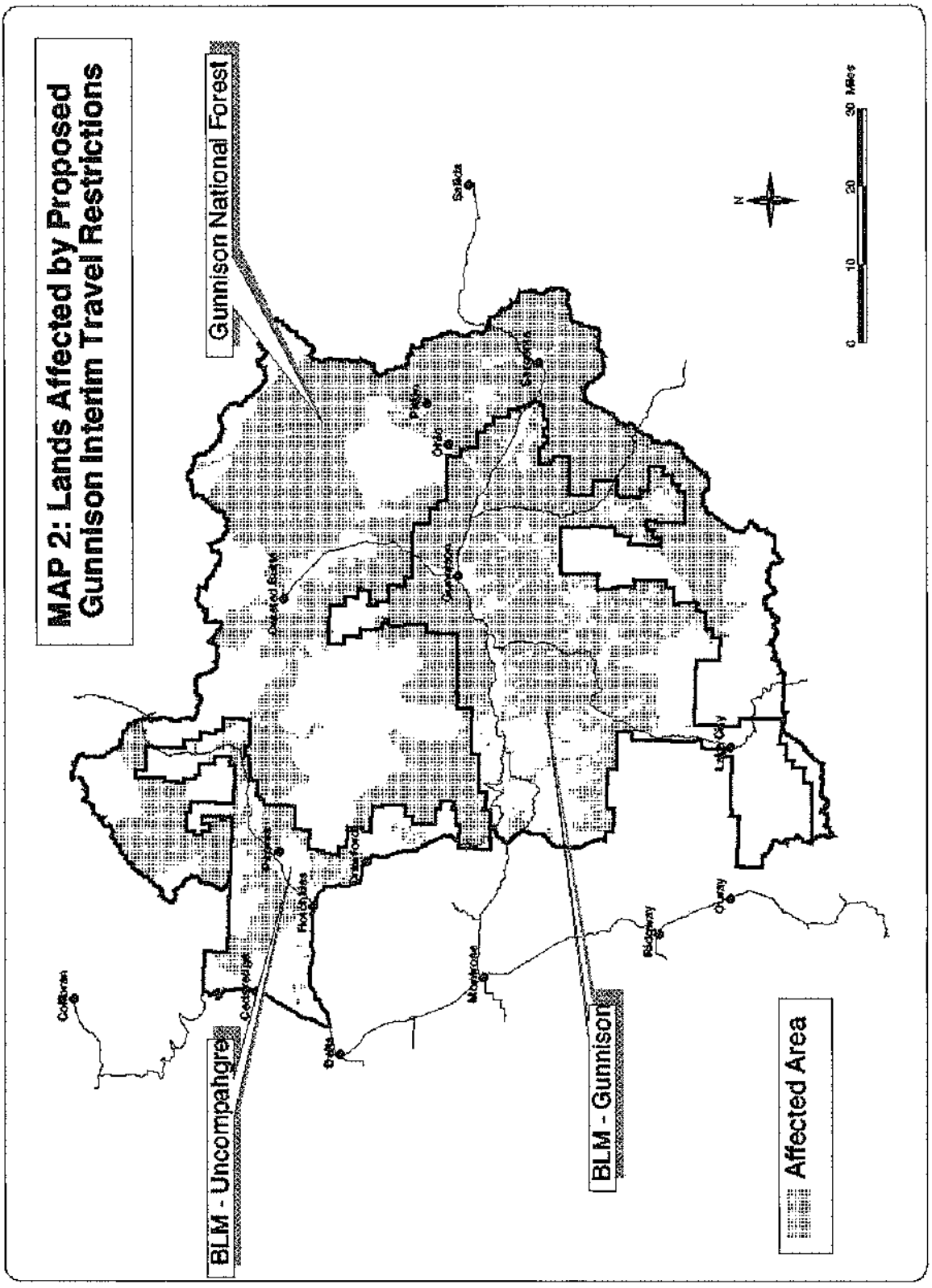
This proposal, if implemented, would be Interim Direction, until such time as route-by-route travel planning is undertaken.

The proposal would NOT affect:

- Congressionally designated areas, such as the West Elk, Raggeds, and Powderhorn Wildernesses and the Fossil Ridge Recreation Management Area. (These are already restricted-travel areas.),
- Private or State lands,
- Areas where travel is currently restricted to specific designated roads and trails through previous travel- or resource-management decisions,
- Existing roads or trails, or
- Snowmobiles, snowcats, and other over-the-snow travel.

NOTE TO READER: Acronyms and terms you may not be familiar with are defined in the Glossary (Appendix A).


MAP 1: Vicinity
Gunnison National Forest
BLM - Gunnison
BLM - Uncompahgre
Colorado
20 Miles
10
0
10
N


MAP 2: Lands Affected by Proposed
Gunnison Interim Travel Restrictions
Gunnison National Forest
BLM - Uncompahgre
BLM - Gunnison
Affected Area
N
0
10
20
30 Miles

PURPOSE AND NEED

The agencies believe the proposed restriction of off-route, cross-country travel is necessary to prevent the proliferation of new, user-created routes until more detailed travel planning is completed. There is an immediate need to protect the resource and user experience. These conclusions are based on field observation by agency personnel, and increasing comments and complaints by the public. Listed below and briefly discussed are more specific elements of the need to which this proposal is responding.

A. There is a need to make management on the GTAA more consistent with National, Forest Plan, and BLM RMP direction for maintaining soil and water quality. The goal of maintaining and restoring healthy ecosystems and watersheds is not being met.

B. There is a need to curtail the development of user-created motorized and mountain bike routes, specifically the conversion of single-track routes to ATV routes, and then to full-size vehicle routes (see photo 12).

Photo 2. Damage to open meadow has occurred as OHVs have created numerous tracks to avoid wet areas.

User-created routes:

- create ruts, which in turn causes a loss of vegetation, accelerated soil erosion, and stream sedimentation;
- damage fragile environments such as alpine tundra, meadows, and riparian areas;
- are not properly designed or constructed with appropriate alignments, grades, and drainage structures;
- have damaged sensitive plants and/or sensitive plant habitat;
- fragment and degrade wildlife habitat;
- increase potential for spread of noxious weeds.

C. There is a need to efficiently and cost-effectively manage public lands transportation systems. Funding is not adequate to maintain the transportation system now in place. By allowing user-created routes to increase we are, by default, increasing the transportation system and maintenance costs.

D. There is a need to manage travel to accommodate and protect the opportunity for quality recreation experiences, including hunting. Hunting is one of the largest

recreation uses on these public lands and the quality of hunting experiences and success rates are being degraded by ATV off-route use during hunting season. Wildlife habitat quality (habitat effectiveness), big game movement, and the quality of the hunting experience are all being adversely impacted.

E. There is a need to reduce confusion over existing travel management direction, reduce conflict among users in backcountry areas, and ensure public safety. Complaints by all types of users are increasing regarding the current travel situation. Unrestricted OHV use increases safety concerns and reduces opportunities for people who enjoy non-motorized activities, such as hiking, wildlife viewing, and horseback riding.

F. There is a need to keep big game on public lands as long as possible in the fall, thereby minimizing conflicts with private landowners. OHV use often displaces elk and deer from public to private lands, reducing hunting opportunities and creating conflicts with landowners and livestock. Big game animals are being moved off public lands earlier and earlier each year by the pressure of human use. Winter range habitats are being depleted before the real winter season, and private lands are being overused.

G. There is a need to manage public access to prevent both intentional and inadvertent ATV encroachment into Wilderness. This encroachment is occurring at places other than signed portals. Restricting ATVs to existing routes would address this.

Photo 3. Wilderness trails are closed to all motorized and mechanized use.

In summary, there is a widely acknowledged and significant need to manage motorized/mechanized travel within the GTAA. This need translates into the opportunity to better manage and protect natural resources and to better provide for quality recreation experiences for all who use these lands.

<u>Specific Proposed Interim Restriction</u>

Travel off of established routes using a mountain bike, motorcycle, ATV, full-size vehicle, or any other wheeled vehicle that facilitates human travel would be prohibited. Established routes would be open to the current modes of travel and legal use as of August 1, 2000. Established routes are defined as roads and trails that:

- exist on-the-ground as of August 1, 2000, and are portrayed on the ½ inch-to-the-mile map attached to this EA, or
- are easily recognizable on-the-ground as a route, and have been traveled routinely by users.

See Photos 5 through 8 for examples of what would and would not be considered existing routes.

This restriction would not override existing travel management decisions; it only changes "open" travel areas to "restricted" travel areas. This restriction would still allow motorized travel 300 feet off of routes for camping and forest product gathering, where currently allowed (see Photo 4). OHVs would need to stay on established roads and trails to retrieve game.

Photo 4. The proposed action would allow vehicles to travel up to 300 feet off roads and trails to camp, picnic or gather firewood, providing no resource damage occurs.

Administrative use, including special-use authorizations, would be exempt from this restriction. Disabled persons may request authorization for access into restricted areas by contacting the District Ranger/BLM Manager.

This restriction would not affect the management of the agencies' existing transportation system, such as road and trail additions, relocations, maintenance and reconstruction, seasonal and permanent closures, and obliteration of some routes (approved though site-specific analysis). This measure in no way limits the agencies' authority to take necessary actions to protect public safety or prevent resource damage.

Direction for specific roads, trails, and over-the-snow travel will be addressed in the Revised Forest Plan and the BLM – RMPs or other, more detailed analyses at a later date.

Photo 5. Obvious example of an existing established two-track route.

Photo 6. Though there is some evidence of vegetation in the tracks, this route is still receiving "routine" use and would be considered an existing route.

Photo 7. This long-ago route is revegetating nicely (obviously not being traveled "routinely") and would not be considered an existing, established route.

Photo 8. This photo shows where a vehicle has made a couple passes over the same area and compacted vegetation, but this would not be considered an existing, established route.

DECISIONS TO BE MADE

The primary decision that will be made is:

- Should travel by motorized and mechanized vehicles be restricted to currently existing routes, and prohibited off of these routes, in areas of the GTAA where this use is currently allowed?

Secondary decisions needed in response to issues raised in public scoping and considered in the analysis are:

- Should the mode of travel allowed on existing routes be restricted to existing modes of travel for each respective route (i.e., ATV use not allowed on single-track routes, jeeps not allowed on current ATV routes, etc)?

- If proposed restrictions are imposed, should motorized/mechanized travel off route be allowed for the purpose of retrieving downed big game?

- For what distance from existing routes should motorized access be allowed for the purpose of accessing dispersed camping sites?

- Which specific monitoring measures should be implemented?

Consistency with Forest Plan/BLM RMP and Current Visitor Maps

The Proposed Action and Action Alternatives are consistent with the overall management direction set forth in the GMUG Forest Plan. The Forest Plan is being implemented as required by the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA, P.L. 93-378) and the National Forest Management Act of 1976 (NFMA, P.L. 94-588). The Forest Plan provides the framework for the actions proposed here. If the Proposed Action or an Action Alternative were selected, a Supervisor's Order would be written to implement the travel regulation changes.

The Proposed Action and Action Alternatives are also consistent with the Uncompahgre and Gunnison RMPs, which were amended to include the requirement that BLM management activities comply with the standards for land health. Not all the BLM lands in the GTAA have been assessed for landscape health under the BLM's Standards and Guidelines procedures; these assessments would be scheduled over time. If the Proposed Action or an Action Alternatives were selected, the Uncompahgre and Gunnison RMPs would need to be amended.

The Proposed Action and Action Alternatives are not consistent with the current Gunnison Basin Area Visitor Map. If the Proposed Action or an Action Alternative were selected, the map would need to be updated to reflect the new travel regulations. No revision would be necessary if the No Action Alternative is selected.

SCOPING/ISSUES

Scoping (40 CFR 1501.7) is an important part of the environmental analysis process for determining the scope of issues to be addressed and for identifying the environmental issues related to a proposed action.

Scoping letters detailing the proposed action were mailed to over 800 individuals and interest groups in February 2000. The list included grazing and special-use permittees, outfitter-guides, water users, and private landowners, as well as individuals who had expressed an interest in travel management.

News releases were sent to newspapers in communities surrounding the GTAA. Legal notices of the proposed action were published in the Crested Butte Chronicle and Pilot, the Gunnison Country Times, and the Delta County Independent.

From this initial scoping effort more than 120 comments were received.

In addition, BLM published a Notice of Intent in the Federal Register on March 30, 2000 requesting comments on the proposal. Approximately 55 comment letters and e-mail messages were received.

Issues

Public comments received during scoping were used to help determine issues related to the proposal. Other information used to determine the issues included Interdisciplinary Team meeting discussions, management requirements, Forest Service monitoring information, and past agency and public comments related to travel management.

Issues were broken down into four basic categories:

A) Key issues leading to the development of the Proposed Action - These issues were identified after reviewing public and agency (i.e., Forest Service, BLM) comments, and monitoring information.

B) Key issues used to develop alternatives to the Proposed Action - These issues were identified after reviewing comments received during scoping.

C) Issues suggesting the focus of the analysis of effects of alternatives – These issues were identified from both public comments and the Interdisciplinary (ID) Team. These issues describe the environmental (and social and economic) factors affected by the proposed action and alternatives.

D) Issues beyond the scope of this analysis or beyond agency control - These are issues that did not fall within the bounds of the analysis, that could not be addressed at this level of analysis, or over which the agencies have no control.

A. KEY ISSUES LEADING TO THE DEVELOPMENT OF THE PROPOSED ACTION:

1) **Adverse resource impacts caused by unrestricted off-route vehicular use** - Existing travel management direction allows off-route travel by both full-sized and off-highway vehicles, including mountain bikes, on much of the GTAA. The result has been an increase in off-route travel and the development of unplanned and unauthorized routes. Land managers and the public have expressed concern that unrestricted use and the proliferation of unauthorized routes impacts vegetation, soils, water resources and riparian areas, roadless character, and detracts from an area's scenic beauty.

2) **Wildlife Habitat Effectiveness** - Increased off-route use and new routes created by such use have made once remote and secure habitats easily accessible. This has reduced habitat effectiveness by displacing wildlife from preferred habitat; it has also reduced wildlife security areas. Disturbance to wildlife during critical seasons (e.g., breeding seasons) may reduce breeding success and survival rates.

3) **Conflicts between motorized and non-motorized public lands users** - Unrestricted OHV use increases safety concerns and reduces opportunities for people who enjoy non-motorized experiences, such as hiking, wildlife viewing, and horseback riding. It also reduces hunting quality for hunters who choose not to use OHVs, as well as for those who do.

4) **Conflicts with private landowners** - Unrestricted off-route use often displaces elk and deer from public to private lands, reducing hunting opportunities and creating conflicts with landowners and livestock.

5) **Inconsistent restrictions and lack of consistent signing and law enforcement** – Existing travel management designations vary in different parts of the GTAA and are confusing to our recreating public. For example, off-route travel is allowed in some areas but not in others. Consequently, up-to-date visitor and travel management maps are needed to know what activities are permitted where. Signs, maps, and interpretation and enforcement of travel restrictions also vary across the GTAA. This causes confusion, reduces public service, and hinders law enforcement efforts.

6) **Inconsistency with the Forest and BLM Resource Management Plans** -- Existing travel management direction is resulting in continued resource damage, loss of solitude in semi-primitive non-motorized areas, conflicts with other public land users, and declines in the effectiveness of wildlife habitat. Consequently, the direction is not consistent with resource management objectives contained in Forest Plan Direction, or Forest Plan Standards and Guidelines in areas emphasizing non-motorized recreation, wildlife habitat, and riparian ecosystems. In addition, existing travel direction does not comply with

direction outlined in the Rocky Mountain Regional Guide. The Regional Guide states, "On all land areas outside of developed travelways, motorized use with wheeled vehicles will be restricted unless such use is specifically allowed and so designated" (Chapter 2, pages 12 and 13, item #3). The Regional Guide contains overriding Regional travel management policies that apply to all National Forest System lands in the Rocky Mountain Region.

The current travel management direction is also inconsistent with BLM Resource Management Plan Standards and Guidelines for landscape health, which are:

- Ensure health of upland soils;
- Protect and improve riparian systems;
- Maintain health, productive plant and animal communities;
- Maintain or increase populations of threatened and endangered species in suitable habitat; and
- Ensure water quality meets minimum Colorado water standards.

The existing OHV designations and the proliferation of new routes make it difficult for the agencies to continue to meet the standards for healthy public lands.

B. KEY ISSUES USED TO DEVELOP ALTERNATIVES TO THE PROPOSED ACTION:

1) The Proposed Action is too restrictive and limits personal freedom - The proposal would restrict the freedom of motorized/mechanized users rather than just those who do not abide by existing restrictions. It would also limit some opportunities for motorized recreation and deny users motorized access to some locations on public lands.

2) The Proposed Action reduces game-retrieval opportunities - The proposal would make it difficult for some people to retrieve big game since game is usually not taken adjacent to roads. It may also give preferential treatment to people who use horses during the hunting season.

3) Distance allowed for off-route travel is too great - The 300-foot distance is too great and would lead to increased resource damage. The proposal would also lead to law enforcement problems and the creation of new user-created roads and trails.

4) The Proposed Action may legitimize as open all non-system routes "easily recognizable on the ground and routinely traveled." Many of these routes are causing negative impacts and were not established through a NEPA analysis and decision.

C. ISSUES SUGGESTING THE FOCUS OF THE ANALYSIS OF EFFECTS:

The following factors are used to describe the effects of alternatives. These are the basis for the public and the decision-maker to understand the environmental consequences (physical, biological, social and economic) of possible choices before them. These are the foundation of informed decision-making, and are basis for the organization of Chapter 3.

- Effects on soils, water, and vegetation resources
- Effects on recreation opportunity/experience
- Effects on roadless areas
- Effects on wildlife
- Aquatic resources/fisheries
- Effects on threatened, endangered, proposed, or sensitive species of plants and wildlife
- Effects on cultural/heritage resources
- Effects on air quality
- Effects on local economies
- Effects on transportation systems
- Effects on lifestyles and traditional use of public lands
- Law enforcement of travel restrictions
- Effects on access for private inholders and permittees

D. ISSUES BEYOND THE SCOPE OF THIS ANALYSIS OR BEYOND FOREST SERVICE OR BLM JURISDICTION:

Snowmobiles should be included in the proposal.

Response: This issue is beyond the scope of this analysis. The purpose of the analysis is to address the proliferation of user-created routes and the associated resource damage, social conflicts, and disturbance to wildlife. However, we do recognize that snowmobile use on the Forest is an important issue; therefore, it will be addressed in a future analysis.

The agencies should create more OHV trails.

Response: This issue is beyond the scope of this analysis. The agencies are not proposing to open, close, or create any roads or trails as a result of this analysis. The main decision to be made is whether or not to restrict future off-route vehicle use. We will, however, be conducting site-specific travel management analyses in the future. At that time, we will be looking at motorized opportunities and determining whether or not specific roads or trails should be opened or closed or if the construction of new routes is warranted. These decisions would be made only after further public discussion and disclosure.

CHAPTER II

ALTERNATIVES, INCLUDING THE PROPOSED ACTION

The National Environmental Policy Act (NEPA) Regulations (40 CFR 1502.14) require rigorous exploration and objective evaluation of reasonable alternatives. According to NEPA, Federal agencies are also required to include and discuss appropriate measures to mitigate adverse environmental impacts that could result from implementing a proposed action.

This Chapter examines a range of alternatives to the Proposed Action, each having different environmental impacts and protection measures. The alternatives were developed in response to the significant issues. Four (4) alternatives, including a No Action alternative and the Proposed Action, were studied in detail and are documented in this EA.

The Proposed Action and Alternatives 2 and 3 are not consistent with the current Gunnison Basin Area Visitor Map. This map would need to be updated if one of these alternatives is selected; no updating would be necessary if the No Action alternative is selected.

FEATURES COMMON TO ALL ACTION ALTERNATIVES (PROPOSED ACTION AND ALTERNATIVES 2 AND 3)

- If an action alternative is selected, the Gunnison Basin Area Visitor Map would be updated to reflect the new travel regulations. A Forest Supervisor's Order/BLM-RMP amendment would be prepared to implement the travel regulation changes.

FEATURES COMMON TO ALL ALTERNATIVES, INCLUDING THE NO ACTION ALTERNATIVE

- Access would be provided to private inholders, as required by Section 1323(a) of the Alaska National Interest Lands Conservation Act (P.L. 96-487; 16 U.S.C. 3210). Access would also be regulated, as needed, with permit holders. Access for permitted activities (e.g., livestock operations, mineral exploration and development, outfitter and guide operations, recreation events, etc.) on National Forest System or BLM-managed public lands is independent of general public access. Individuals or groups with special permits are allowed to conduct their business according to their permits. Permittees have rights of access to their

permitted area; however, the agencies can stipulate when and how access is achieved through approval of permits or annual operating plans. It is the responsibility of all permittees to follow the terms of their permits.

- Any Federal, State, local official, or member of a rescue organization or fire-fighting organization, in the performance of an official duty related to emergency search and rescue, and/or fire suppression, would be exempt from travel restrictions, except in Wilderness and Congressionally designated special areas (Title 36 CFR 261.50 (e), Forest Service Manual 2355.32, Region 2 Supplement 2300-93-7. The operation and use of vehicles on BLM lands is regulated by 43 CFR 8340.

- Administrative access would be subject to existing policies for such access.

- The Forest Supervisor or BLM Field Office Manager would continue to implement Special Orders or regulations to restrict public use on roads, trails, and/or areas where unacceptable resource damage is occurring. Title 36 CFR Part 261 prohibits damage to the land, wildlife, or vegetative resources. The Federal Land Policy and Management Act of 1976 also includes this provision.

- All Federal and Colorado State laws applying to motorized vehicles are subject to enforcement. Title 36 CFR 261.12 and 261.13 regulate the operation of motorized vehicles on and off Forest Development Roads (FDR), respectively. Additionally, Colorado State Statutes apply to the operation of all motorized vehicles on public lands.

- If funding allows, law enforcement efforts and Agency education and ethics programs regarding travel on public lands would be increased;

- Subsequent site-specific travel management analyses would be completed through a separate process to determine whether to keep open or to close individual roads and trails or to develop additional motorized opportunities. Decisions pertaining to road/trail closures and/or openings and additional motorized opportunities would occur only after further public discussion and disclosure.

ALTERNATIVES CONSIDERED AND ANALYZED IN DETAIL

PROPOSED ACTION: Restrict motorized and mechanized vehicle use to existing routes (i.e., eliminate cross-country, off-route travel)

The Proposed Action is described in Chapter 1 and, to save space, is not repeated here.

ALTERNATIVE 1: No Action - Existing travel management direction would remain unchanged

Under the No Action alternative, Forest Service and BLM travel management direction would not be revised. Areas open to off-route motorized and mechanized travel would remain open. Existing travel restrictions would remain in place in areas currently restricted to off-route motorized travel.

ALTERNATIVE 2: Allow use of off-road vehicles for big game retrieval

All aspects of the Proposed Action would apply to Alternative 2. In addition, under Alternative 2, ATVs and motorcylces would be allowed to travel off of existing roads and trails during the big-game hunting season for the purpose of downed game retrieval. **Off-route motorized travel would be allowed for big game retrieval only, providing resource damage does not occur.** For the purposes of this analysis and decision, the agencies adopt the Colorado Division of Wildlife's definition of big game. Animals included are elk, deer, bighorn sheep, moose, mountain goat, antelope, lion, and black bear. Under this alternative, retrieval of downed animals by ATVs and motorcycles would be allowed in all legal hunting seasons, including archery, muzzle-loader, standard rifle, and special seasons.

Other aspects of Alternative 2 include:

1) Game retrieval would not be allowed in areas of the GTAA where motorized travel is currently restricted.

2) Game retrieval would be allowed from 10:00 a.m. until 2:00 p.m.

3) Only one vehicle per downed animal could be used for game retrieval.

ALTERNATIVE 3: Reduce off-route travel restriction from 300 feet to 100 feet

All aspects of the Proposed Action would apply to Alternative 3, except under Alternative 3, wheeled travel off of existing routes for such activities as firewood gathering, camping, and picnicking would be reduced from 300 feet to 100 feet, providing that resource damage does not occur.

ALTERNATIVES ELIMINATED FROM DETAILED STUDY

ALTERNATIVE 4: Restrict wheeled-vehicle use on only portions of the GTAA (i.e., a mix of open and restricted areas)

It was proposed by some that instead of restricting off-route travel on the entire GTAA, a part of the area be left open. The areas to be left open would be identified on the basis of suitability for such use and/or resistance to the impacts of such use.

This alternative was eliminated from further study because the purpose and need described in Chapter I applies across all lands in the GTAA, and the ID Team was unable to identify any one area over another that would be suited to off-route use. Leaving selected areas open would concentrate this type of use and amplify the impacts we are seeking to reduce.

ALTERNATIVE 5: Restrict the use of motorized vehicles off of existing routes differently during the big game hunting season.

This alternative would restrict the use of motorized vehicles off of existing routes during the big game hunting season, but would allow such use during the remainder of the year.

Some people commented that the impact of motorized use during hunting season has caused most of the resource impacts we are seeking to manage, and that the average motorized recreationist should not be penalized.

This alternative would allow for scouting for game prior to hunting season, and seems to selectively discriminate against hunters in particular. Neither agency felt that it was appropriate to selectively regulate one single group of users. Neither did we feel that such regulation was reasonably enforceable.

Alternately, some commented that off-route use should be allowed ONLY DURING the hunting season. This would facilitate access for hunters of all ages and abilities. The same concern about the selective regulation of one group applied in the elimination of this alternative. Also, the bulk of the impacts to the resource, and to wildlife would not be addressed under this scenario of management. Therefore, it was eliminated.

ALTERNATIVE 6: Restrict the Use of Motorized Vehicles to Forest Service and BLM System Routes only.

Some people commented during scoping that making any decision allowing use of the numerous user-created routes would be affirming and legitimizing those routes, when in fact they were not planned or intended to be permanent transportation facilities. The suggestion was to consider limiting all motorized and mechanized use to designated, Forest Service and BLM System roads and trails. System roads and trails are either intentionally designed and built by the agency, or formally accepted as part of the official system.

This alternative was eliminated from detailed consideration because route-by-route decisions are not being made in this process. See "Decisions to be Made" in Chapter I. The proposed action would not legitimize or positively establish these routes. Individual road and trail decisions will be made in separate processes to follow. The decision to be

made through this environmental analysis (this EA) focuses on off-route/cross-country travel.

The most immediate need to which this proposed restrictions are responding is to stop the proliferation of new routes and the "creep" of existing routes to higher levels of use. A decision to restrict use to Agency routes would result in closure of many existing routes to current motorized/mechanized use. We believe a more in-depth analysis that considers the entire system of routes is needed to make these decisions. Such detailed analysis is beyond the scope of the current process. Both agencies recognize the need for more detailed route-by-route analysis.

CHAPTER III

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

INTRODUCTION

This chapter describes the affected environment of the GTAA and the environmental consequences of implementing the Proposed Action and each alternative. The affected environment consists of various resources and uses within the GTAA. Generally, there will be physical and biological changes in the environment as a result of actions proposed in the alternatives. In some cases, the environmental effects of the alternatives may extend beyond the public land boundaries, such as displacing wildlife onto private land. In most cases, however, the affected environment is generally limited to National Forest or BLM-managed lands, and most environmental effects would occur within the GTAA boundary.

The Proposed Action and alternatives were designed to address one or more of the issues described in Chapter I. The issues suggest a need for analysis in several resource areas/disciplines. These become the basis for the organization of this chapter. They are:

- Effects on soils, water, and vegetation resources
- Effects on recreation opportunity/experience
- Effects on roadless areas
- Effects on wildlife
- Effects on aquatic resources/fisheries
- Effects on threatened, endangered, and sensitive species of plants and wildlife
- Effects on cultural/heritage resources
- Effects on air quality
- Effects on local economies
- Effects on transportation systems
- Effects on lifestyles and traditional patterns of use
- Law enforcement of travel restrictions

Under each resource area/discipline, direct, indirect, and cumulative effects (see definitions below) are described for the Proposed Action and each alternative. The area of analysis for cumulative effects can differ for each issue.

Definitions: Direct Effects are caused by the action and occur at the same time and place.

Indirect Effects are caused by the action, but occur later in time and are farther removed in distance.

Cumulative Effects are impacts on the environment that result from incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions. These effects occur regardless of what agency (Federal or non-Federal), entity, or person undertakes such other actions.

SOILS/WATER/VEGETATION

A. *AFFECTED ENVIRONMENT*

Soils

The soils within the GTAA vary considerably in terms of physical and chemical characteristics. This variability is due, in large part, to the great contrast in elevation, topography, microclimate, moisture, parent material, and vegetation found across the GTAA.

Geology, climate, and topography contribute to or determine the erosion potential, or hazard, of the land. Erosion hazard is the inherent susceptibility of a soil to erosive forces such as a raindrop or water flow over the surface of the soil. The amount of hazard depends on particle size, distribution, rock fragment content, organic matter content, soil structure, permeability, slope gradient, and rainfall characteristics. The combination of soil material (very fine sand, silt, and clay) and soil permeability makes these soil types highly erodible. This is not to say that no use should occur on these areas, but design, location, and drainage features should be considered so as to mitigate possible soil erosion problems.

Generally, sediment yields within the GTTA vary from less than 0.35 tons per acre annually in higher elevations, to 0.70 tons per acre annually in lower elevations (Gunnison Basin Draft Resource Management Plan, 1992). Sediment yields are accelerated in many upland areas by surface-disturbing land uses such as grazing, mining, timber harvesting, and off-road vehicle use. Poorly located and unmaintained roads and water developments also produce sediment. Incised channels (gullies) are also common in the GTTA uplands and are a major sediment source. Gullies can form naturally but are often aggravated or initiated by upland land uses, roads that increase or concentrate surface runoff, or from direct physical disturbance to stream channels or adjacent riparian zones. Channels in this condition increase peak flood flows and drain alluvial aquifers, often reducing the quality and areal extent of the riparian zone.

Water

The GTAA is the headwaters for the East, Gunnison, North Fork of The Gunnison, and Taylor Rivers, and Tomichi and Cebolla Creeks. These and other streams contribute water to the Colorado River. Streams range in character from ephemeral (flowing only in response to precipitation events) to perennial (year-round). These streams range in size from tiny headwater channels to major rivers.

In general in the GTTA, wetlands are limited to narrow strips of vegetation adjacent to streams and lakes. However, some larger, isolated marshes and wet meadows can also be found in high elevation montane terrain. By definition, wetlands are biologically and morphologically diverse wet areas that support water-dependent plant species. Wetlands will exhibit wetland vegetation types, hydric soil, and a wetland hydrologic regime dealing mostly with depth and duration of ground water.

Riparian areas are the zones of lush, green vegetation that live or grow near water on the banks of streams, lakes, and rivers. Riparian ecosystems, aquatic ecosystems, wetlands, lakeside zones, and floodplains have been considered one and the same for this analysis and will be referred to as riparian areas. Although these terms are used interchangeably, by strict ecological definition, they may not be the same in all instances. Riparian zones within the GTTA are hydrologically important. Riparian areas intercept sediment from uplands and attenuate flood flows. Riparian areas and stream channels are the principal ground water recharge areas for alluvial aquifers, and dense, vigorous riparian vegetation is crucial for maintaining stable stream channels and high water quality.

In general, most water sources (streams, lakes, and riparian areas) on the GTAA are in good condition. Exceptions exist in sensitive and easily accessible watersheds. Some of these areas have incurred streambank disturbance, channel instability, shoreline disturbance, removal of riparian vegetation, rutting of wet meadows, and increased sediment. Causes include aspects of multiple-use management, such as timber harvest, road construction, grazing, mining and recreation, including off-route vehicle use. The results are considered non-point sources of pollution and all act in the same fashion, i.e., an increase in erosion and sediment in streams and lakes.

Vegetation

Vegetation types of the GTAA vary greatly, depending on elevation, terrain, and aspect. Refer to the information in the **Wildlife Habitat Management** section of this chapter for more detailed data regarding vegetation types.

High-alpine vegetation types occur above timberline (above 11,000 feet). Due to the short growing season and harsh climatic conditions, major disturbances to this, and other vegetation types in the GTTA are very slow to recover.

The Engelmann spruce-subalpine fir (*Picea engelmanii - Abies lasiocarpa*) type occupies the elevational range between 11,000 and 8,000 feet. Spruce-fir forests tend to be dense and occupy moist sites. Stands may vary from single-aged, single-layered canopies to

multiple-aged, multiple-layered canopies. Most spruce-fir stands are mature to overmature across the GTAA.

Generally between 11,000 to 7,000 feet in elevation and intermingled with spruce-fir stands, aspen (*Populus tremuloides*) and lodgepole pine (*Pinus contorta*) vegetation types are found. These forest stands are also intermingled with grasslands, wet meadows, and mountain shrub cover types. Aspen and lodgepole pine stands are usually single-aged with more open understories than are commonly found in spruce-fir forests. Aspen stands usually have very productive understories which support livestock grazing and many wildlife species. Lodgepole pine stands are usually dense, closely grown, and have very little vegetation on the forest floor.

Mountain shrub (dominant species include Gambels oak (*Quercus gambelii*), mountain mahogany (*Cercocarpus montanus*), serviceberry (*Amelanchier* spp.), mountain big sagebrush (*Artemisia tridentata*), snowberry (*Symphoricarpos oreophilus*)) and pinyon-juniper (*Pinus edulis-Juniperus osteosperma*) vegetation types are found on west- and southwest-facing slopes. Mountain shrub cover types are in the elevational range of 9,000 to 7,000 feet, with pinyon-juniper occurring lower in the 7,000 to 6,000 feet range.

Riparian areas - Refer to the information under the previous heading titled **Water** for information regarding riparian vegetation. Riparian habitat within parts of the GTAA is commonly overgrazed and the resulting excessive vegetation utilization and physical damage to soils and stream channels is a management concern. In some areas, this overuse by livestock occurs in the spring and fall when vegetation and soils are sensitive to damage, thereby exacerbating the concern. The same concern for riparian resources exists when cross-country, off-route vehicle use occurs in riparian areas.

B. ISSUES

This section provides information related to the following issues identified in Chapter I of this EA:

- Adverse resource impacts caused by unrestricted off-route vehicular use.

C. EFFECTS ASSOCIATED WITH THE ALTERNATIVES

Effects common to all alternatives:

Cross-country, off-route travel occurring over the same path crushes and bruises vegetation affecting plant vigor. Roots become exposed and damaged. Results vary and can range from less individual plant growth to loss of a species. Trees and shrubs could be cut down or pushed over to clear paths. Loss of vegetation and soil surface-disturbance would continue to generally be the first consequences of user-developed trails. Continued OHV use would result in soil compaction, which would effect and restrict water filtration, and cause increases in overland flow of water, and soil erosion. Secondary impacts include reduced soil moisture, aeration and nutrient cycling, which further prevent the establishment of vegetation. Accelerated soil erosion becomes the

primary problem once vegetation is lost, especially when water concentrates on the trail in "puddles," or when water is directed down slope within trail "tracks," rather than spreading and flowing slowly and gradually over the land surface. Since slope gradient and soil loss are positively correlated, the steeper the trail, the greater the soil loss. The erosion rate is also influenced by the position of a trail with respect to the top or bottom of a slope and the gradient of the slope along and across the trail.

Photo 9. A meadow damaged by OHVs traveling off existing routes.

In wet areas, soil compaction would occur, and plants may be unable to germinate in the impacted area. Loss of vegetation in wet areas could result in these sites drying up. Non-native or undesirable plant seeds could also be introduced. These impacts are associated with the path of travel and result in "user-created" roads and trails. When cross-country, off-route motorized traffic is spread out over a large area, so are the associated environmental effects, with most impacts occurring during wet soil conditions (See Photos 2 and 9). If the disturbance is not repeated, natural regeneration could occur in areas with productive soils. However, areas containing less productive soils will show signs of disturbances caused by cross-country, off-route OHV travel for years.

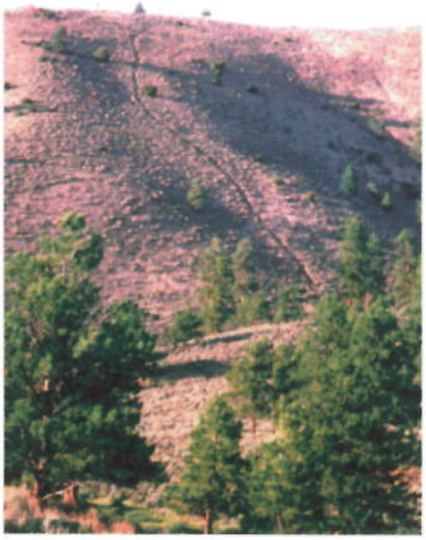


Photo 10. This user-created route up a steep hillside will probably never recover due to low soil productivity, erosion problems, and poor conditions for vegetation growth.

Within the GTAA, cross-country motorized routes have dissected and reduced riparian and wetland areas. Roads of all kinds have fragmented many wet meadows, and these roads have drained away surface water or altered subterranean flows. Consequently, some wet meadows have lost their ability to retain water and are now dry.

People are naturally drawn to water and riparian areas. Cross-country, off-route travel paths crossing streams and wetlands would continue to result in the loss of vegetation and increased soil compaction, bank instability, and increased sedimentation. Streambanks and lake and reservoir shorelines that receive heavy motorized use could become denuded of vegetation, soils could become compacted and rutted, and increased sediment could enter the water. Increased sediment could negatively impact fisheries by reducing available oxygen and potentially covering spawning gravel.

Based on work from the Wenatchee National Forest in Washington, Dunnell (1980) pointed out that most resource damage from off-route vehicle use is caused by improper trail location rather than by improper use. This is true of many of the user-created trails found across the GTAA. Because of their location (e.g., wet areas, steep hills, etc.), many of the user-created trails produce more erosion than roads or trails that have been constructed using proper trail design and drainage techniques. Often the user-created trails either cross or run perpendicular to steep slopes, which results in accelerated erosion potential. Other trails have stream crossings that are not hardened, i.e., they have muddy bottoms rather than rocky bottoms, thus contributing sediment directly into the watercourse.

Photo 12. The vegetation in this meadow would likely recover provided more vehicles do not travel in the same tracks.

The effects of travel on vegetation in the GTTA depend on the types of vegetation, the moisture content of the soil, the number of vehicle passes, and the disturbance and pressure applied to the vegetation by vehicles. Under dry soil conditions, a single vehicle pass usually does little harm to vegetation. Plants may be bent over and bruised. Repeated passes over the same path can be detrimental to vegetation and soils. Under certain conditions on some soil types, one pass by a vehicle could result in a very noticeable and continuous track void of most vegetation. The level of impact is directly related to the frequency and density of off-route use. Impacts would include (Miller 1976, Westbrooks 1998):

- A reduction and/or elimination of vegetative plant cover and density from repeated use.
- A reduction in root biomass due to soil compaction and reduced soil moisture.
- Serious soil erosion problems when weakened plants are not able to protect the soil from overland water flow.
- Poor seed germination in disturbed areas due to soil compaction and reduced soil moisture.
- A change in plant species composition on the disturbed sites caused by higher levels of disturbance as different plant species can tolerate different levels of disturbance. Favorable environments for noxious weeds may be created.
- The dispersal of noxious weeds along travel routes by vehicles, livestock, pack stock and hikers.

In areas with productive soils, natural regeneration may occur if the disturbance is not repeated. In areas with low soil productivity, the disturbance of off-route travel could be visible for years as evidenced in the photo to the right.

Photo 13. Due to low soil productivity and the steepness of this hill, these ruts will be seen for many years to come.

Most of these impacts are associated with the path of travel. As noted earlier, noxious weeds can invade into areas adjacent to travel corridors. Where off-route travel is allowed over large areas, the potential for impacts increases in scope. Instead of exposing narrow corridors of designated routes to the contamination of noxious weeds, area-wide, off-route travel exposes all accessible areas to the likely deposit of noxious weed seed and eventual infestation. Restricting cross-country, off-route travel to limited corridors would be a substantial step towards limiting the area of initial weed establishment. It would not eliminate the need to continually treat designated travel corridors, but would narrow the area to be treated.

PROPOSED ACTION: ***Restrict wheeled-vehicle vehicle use to existing routes***

The Proposed Action would have a positive effect on overall watershed health (includes streams, lakes, riparian areas) due to the reduction of future user-created routes. User-created routes are not designed according to agency standards and guidelines; consequently, they are often poorly located and do not include proper drainage structures. Improper drainage can result in higher than normal erosion rates and increased surface flow.

ALTERNATIVE 1: ***No Action - Existing travel management direction would remain unchanged***

Cross-country, off-route use of OHVs would continue on 1.5 million acres of the 2.2-million acre GTAA. Unrestricted OHV use would result in a large number of connected disturbed areas (i.e., user-created routes), which would cause increased sediment in the stream network. Increased sediment would result from improper design, route location, and the lack of drainage structures.

Existing direct effects of user-created routes, such as delivery of sediment to the stream system through disturbed areas, expansion of the channel network through conversion of subsurface flow to surface flow, and soil compaction would continue under the No Action alternative.

Indirect effects would include a decline in aquatic habitat due to sediment deposition, increased flows during runoff events, and a decline in vegetative vigor due to soil compaction. Determining the relative amounts of sedimentation occurring from the existing trails is difficult due to the variation in location, topography, weather, and soil types. Wilson and Seney (1994) found that the quantity of sediment eroded from trails was largely dependent on site-specific geomorphic variables and soils, but that sediment yields from wet trails were typically higher than from drier trails.

Impacts to riparian areas would continue under the No Action alternative. Green (1998) sampled riparian areas at different recreational use levels and found that, at high use levels, bare soil accounted for 82 percent of the ground cover as compared to 4.9 percent at medium use and 1.4 percent at low use. Those riparian areas that are impacted by recreational use would be slow to recover under the No Action alternative.

ALTERNATIVE 2: ***Allow use of off-road vehicles for big game retrieval***

Under Alternative 2, the effects of user-created routes would be reduced from those of the No Action alternative. As with the Proposed Action, erosion rates and sedimentation from this alternative would be reduced from current levels. The actual effects of using off-road vehicles during typical hunting seasons for big game retrieval would depend upon such factors as soil moistures, weather, soil types, amount of snow, or depth of frozen soil.

ALTERNATIVE 3: ***Reduce off-route travel restriction from 300 feet to 100 feet***

The effects of Alternative 3 would be similar to those described under the Proposed Action. Because of the smaller area in which off-route traffic would be permitted, impacts would be confined to a smaller area than in the Proposed Action or Alternative 2.

D. IRREVERSIBLE and IRRETRIEVABLE COMMITMENT OF RESOURCES

Once new routes are established, the compaction of soils, loss of vegetation and even loss of topsoil/organics takes a very long time to recover. On drier sites in the GTAA soil formation occurs at the rate of several hundred years per inch. Roads pioneered during the mining era are still visible on the landscape today in some areas of the GTTA.

E. CUMULATIVE EFFECTS

Compared to the No Action alternative, the Proposed Action and Alternatives 2 and 3 would result in cumulative beneficial effects to the soil, water, and vegetation on affected lands in the GTTA due to the reduction of future user-created routes. Under the No Action alternative, user-created routes would continue to be made, erosion rates would continue to increase, sediment levels would increase, and areas currently experiencing some degree of mass soil movement could be further impacted. Thus, the No Action alternative would result in adverse cumulative effects to the soil and water resource.

RECREATION

A. *AFFECTED ENVIRONMENT*

The goal of recreationists using Forest and BLM lands is to obtain satisfying experiences through recreational activities in attractive settings. Resource managers have two goals in providing recreation experiences. The first is to provide opportunities for people to obtain those recreation experiences; the second is to minimize the impacts of recreational use on the natural resources. Recreation managers try to provide satisfying experiences through management of natural resource settings, and the activities that occur within them. To obtain this goal, settings and probable experience opportunities have been set along a spectrum called the Recreation Opportunity Spectrum (ROS) (see Glossary). A broad spectrum of recreation opportunities, ranging from primitive to rural settings, are provided in the GTAA.

Recreation opportunities in the GTAA are truly a national resource. The diversity of Rocky Mountain settings defined by terrain, scenic beauty, and types of access available offer outstanding recreation opportunities to users of these public lands. The diverse types of recreation that occur in the GTAA include hunting, fishing, hiking, dispersed and developed camping, picnicking, horseback riding, mountain bike riding, motorcycle riding, ATVs and 4WD touring, rafting, and skiing.

Nearly all public land visitors use vehicles to get to their preferred activities and settings, whether it is a hiking trailhead, a fishing spot, or a ghost town. For many people, their vehicle is just the mode of transportation used to access their recreational activity. For others, vehicle use itself is the activity. Given these realities, it is clear that an adequate road and trail system must be in place and maintained for the public to access the GTAA.

More recreationists are using public lands today than 10 or 20 years ago. The technology of recreational equipment also advanced during this time to create ATVs and mountain bikes that were not used for recreation when previous travel management plans were completed. Changing values, attitudes and motivations of recreationists have resulted in changes in the way they use technology, especially new types of vehicles with which to enjoy public lands.

Hunting

Southwest Colorado is a nationally popular destination for big-game hunting. Hunters use vehicles extensively to access camping sites, search for game, and retrieve game once it is harvested. Big-game hunting brings the highest number of visitors and the highest number of conflicts between motorized and non-motorized GTAA users. Hunters, both local and from out of state, literally flock to the area with trailers of ATVs. The capability of ATVs to go nearly anywhere impacts wildlife and also the hunting experience of hunters using more traditional methods of access, such as foot and horses.

With the increased number of hunters, roads and trails, and modes of travel that occur on and off roads and trails, it is becoming increasingly difficult for individuals and groups to find secluded locations that do not result in frequent encounters with other hunters.

Comments indicated that many hunters who hunt in remote terrain with the use of backpacks and/or horses are the ones most concerned about ATV use. There are several remote areas where ATV use changed the hunting experience. Even hunters who use ATVs to access hunting areas or retrieve game are complaining about the amount of ATV use in given areas.

Dispersed Camping and Picnicking

Dispersed camping and picnicking is widespread throughout the GTAA and occurs along streams and lakes as well as along Forest and BLM roads and trails. The sites were developed by different user groups based on their accessibility and the experiences sought. Many sites have existed for years, but each year new camping sites are being created. The increase in new dispersed sites results in an increase in the damage to soil and water resources. Many of these sites are located in sensitive areas along lakes and streams and in wet meadows. Continued use of these sites, i.e., going to and from camp, as well as use during wet seasons (e.g. spring, fall), is resulting in damage to the soil and water resource.

Mountain Biking

The popularity of mountain bike use has rapidly increased during the past decade. Crested Butte is considered by many as the birthplace of the mountain bike. The more gentle terrain of the BLM lands in the GTAA is also popular with mountain bikers. Mountain bike use has increased on the single-track trails across the GTAA. In addition, mountain bikers have developed many new user-created routes in an effort to expand the area they can ride. What used to be faint cattle/game trails are now mountain bike routes. Motorcyclists also use the single-track routes established by mountain bikers. In some areas, ATV riders are using these single-track trails, thereby widening the trails. As with other user-created trails, these trails often cause more damage and impact to a variety of resources.

Photo 14. Mountain bikers on a single-track trail.

Off-Highway Vehicle (OHV) Use

A portion of the recreating public focuses on the use of vehicles as the recreation activity they want to enjoy on public lands. Often these vehicles are specialized to handle rough roads and trails which are found in the semi-primitive setting that the GTAA offers. OHVs include four-wheel-drive trucks and jeeps, sport-utility vehicles, motorcycles, ATVS, and Humvees.

Many OHV enthusiasts are content to stay on the existing road and trail system. Impacts to the land occur when people drive off roads and trails to maneuver around obstacles or avoid wet spots.

Some OHV users prefer to travel off of roads and trails. The effects of this use varies with the manner, location, and terrain of the off-route travel.

This increased use is causing concern because it is much easier to take these vehicles off the existing roads and trails into areas that were not receiving motorized use in the past. Motorized road and trail and non-motorized trail opportunities that link the Forest and BLM trails are provided across the GTAA. The main mode of motorized travel on motorized trails has been by motorcycles. ATV use on single-track trails results in a widening of these trails as seen in Photo 15.

Photo 15. Notice how an ATV has flattened the vegetation on either side of this single-track trail that it should not have been on.

The current motorized trail system was not designed to accommodate the increase in ATV use. Consequently, ATV use on non-motorized trails as well as the proliferation of user-created ATV trails have occurred across the GTAA. Some people are opting to use ATVs in place of full-size, four-wheel-drive vehicles because they are able to access areas more quickly, easily, and cheaply. This also saves wear and tear on more expensive full-sized, four-wheel-drive vehicles. An area that normally took two hours to access in a full-sized vehicle now takes only thirty minutes to access on an ATV. Due to quicker and easier access, people continue to look for prolonged riding opportunities. This, in part, results in user-created routes.

OHV impacts are monitored in several ways, including field observations by agency personnel and reports from the public. Damage caused by this OHV use is much the same as that mentioned for other activities above – road proliferation, soil erosion and compaction, destruction of vegetation, fragmentation of wildlife habitat, increase in introduced weeds on disturbed ground, disruption of wildlife, impacts to water quality, disturbance to other visitors, trespassing and conflicts with private landowners. All areas of the GTAA outside of Wilderness, continue to experience resource damage caused by OHVs. Most of the areas currently designated as open for motorized use in the GTAA are suffering from these types of impacts as a result of increased travel off of existing routes. Some of the soil and water concerns are on existing roads and trails where use has been allowed to continue without road maintenance.

Each field season, some damaged areas are rehabilitated. Budget is a constraint on how much of this work can be done.

B. ISSUES

This section provides information related to the following issues identified in Chapter 1 of this EA.

- *Adverse resource impacts caused by unrestricted off-route vehicule use*
- *Conflicts between motorized and non-motorized GTAA users*
- *Limitations on personal freedom*
- *Game retrieval opportunities*
- *Inconsistent restrictions and lack of consistent signing and law enforcement*
- *Conflicts with private landowners*

C. EFFECTS ASSOCIATED WITH THE ALTERNATIVES

PROPOSED ACTION: *Restrict motorized/mechanized vehicle use to existing routes*

Restricting off-route wheeled travel to existing routes would help reduce the creation of future user-created roads and trails, and would help preserve the remaining semi-primitive non-motorized (SPNM) (see Glossary) areas in the GTAA. With the increase in ATV and sport-utility vehicles (SUVs) use, semi-primitive non-motorized opportunities have decreased dramatically in the GTAA over the last 10 to 15 years. User-created roads and trails, and increases in off-route motorized use, have changed the GTAA to a semi-primitive motorized setting (see Glossary) and, in some cases, even a roaded-natural setting. The density of motorized roads and trails and the fact that most of the GTAA is open to off-route motorized travel has caused user conflicts and a loss of solitude.

Because off-route travel would not be allowed under the Proposed Action, hunters would have to use existing motorized roads and trails for game retrieval. Outside of Wilderness, many areas of the GTAA are still within one-half mile of an existing motorized or mechanized route. The proposed restriction would probably result in some hunters choosing to hunt closer to motorized routes to prevent having to pack game too far. Alternatively, they would have to put in more effort packing their animals out to an existing route by foot or horse. Hunting experiences for those who do venture further from roads and trails would be improved.

People who hold the belief that public lands should be open to all forms of recreation without restrictions might feel their personal freedoms are being taken away by the proposed action. Conversely, recreationists who do not like to see or hear the impacts associated with off-route wheeled-vehicle use feel their freedoms are currently being affected by these impacts.

People with disabilities will continue to have opportunities to recreate in the GTAA under this proposal. Wheeled-vehicle travel would be limited to existing, established routes. People with disabilities may request authorization for access into restricted areas by contacting the FS District Ranger or BLM Field Office Manager.

Other effects associated with the Proposed Action include:

- Dispersed recreationists would have greater opportunities for solitude and fewer conflicts with other Forest and BLM visitors. Sportsmen, hikers, OHV enthusiasts, horse users, fisherman, and hunters would have fewer conflicts, improved resources, and greater opportunities for solitude.

- Consistency of travel management restrictions would be improved. These restrictions would be much easier for the general GTAA visitor to understand and follow if wheeled use were restricted to roads and trails through consistent policy.

- Damage to soil, water, and vegetative resources would be reduced, resulting in improved aesthetics over time.

ALTERNATIVE 1: ***No Action - Existing travel management direction would remain unchanged***

Cross-country, off-route wheeled-vehicle recreational opportunities would continue to be available on 1.5 million acres in the GTAA. Hunters would be able to retrieve downed game with any motorized or mechanized vehicle open to off-route travel. The elderly and the physically disadvantaged would continue to be able to access remote areas of the GTAA using wheeled vehicles off-route, and would be able to retrieve downed game without restriction.

Under the No Action alternative, the creation of future, unauthorized roads and trails through repeated use of the same portions of ground would continue to occur on the 1.5 million acres of the GTAA open to off-route travel.

There would be a continuing loss of opportunities for solitude for dispersed recreationists, and continued conflicts between recreationists. Sportsmen, hikers, OHV enthusiasts, horse users, bikers, and hunters would be faced with more conflicts, less satisfying experiences, and a degraded resource as off-route wheeled use continues to increase.

There would be continued confusion to public land users with regards to travel management policy and restrictions. Open travel areas allow motorized travel off route when it does not cause damage or unreasonable disturbance to the land, wildlife, or vegetative resources. Resource damage means different things to different people which makes enforcement difficult.

There would also be continued damage to soil and water resources that occur from wheeled-vehicle off-route use.

Finally, conflicts with adjacent private landowners would continue due to off-route use creating an opportunity for trespass.

ALTERNATIVE 2: ***Allow use of off-road vehicles for big game retrieval***

This alternative would allow the use of motorized or mechanized vehicles off of existing roads and trails for game retrieval for those people who are unable to or choose not to pack a large animal out of the backcountry by foot or horse. Game retrieval using motorized/mechanized vehicles would be allowed only in open travel areas (on the Visitor Map). It would not apply to areas where travel is already restricted to roads and trails.

User-created game retrieval trails could be created through repeated use of the same portion of ground and other recreationists could be confused as to whether these are legitimate routes or not. This confusion could result in more use on these trails and the creation of more routes.

User conflicts between non-motorized and motorized hunters could still occur. The guidelines listed for game retrieval (i.e., limiting hours for retrieval) could eliminate some of these conflicts.

Having different regulations in different parts of the Forest is currently, and would continue to be, confusing for hunters. Signing could help, however, signing can be ineffective due to cost, vandalism, and maintenance.

Enforcement would be difficult under this alternative. The burden of proof would be upon the federal agencies to determine if motorized off-route travel was because of game retrieval or other reasons.

This alternative would allow a differential treatment of one segment of the recreating public, because it gives preference to hunters and hunters with ATVs. Such restrictions are widely perceived as unfair by other members of the public.

Allowing hunters to use ATVs for game retrieval would continue to result in the proliferation of trails and the associated impacts.

ALTERNATIVE 3: ***Reduce off-route travel restriction from 300 feet to 100 feet***

This alternative is similar to the Proposed Action with the exception of how far off route users may drive to camp, picnic, or gather firewood. In this alternative, that distance would be limited to 100 feet off of established roads and trails. Hunters would be restricted to the use of existing roads and trails when retrieving downed game. Most of the effects discussed previously under the Proposed Action would apply.

Many of the previously used dispersed camping spots across the GTAA already have a road or trail leading to them. Therefore, the majority of camping sites would remain accessible for recreationists even if the distance to drive off route were limited to 100 feet.

Many arterial and collector roads have had extensive firewood gathering, and in some places, it is becoming difficult to find firewood within 100 feet of the road. Restricting firewood gathering to 100 feet could cause the loss of firewood-gathering opportunities.

In areas of the GTAA where travel is currently restricted, the Forest Service restriction is as follows: In areas where developed parking sites are not provided for camping, trailheads, or fuelwood gathering, people can drive to a suitable site within 300 feet of a designated route; unless this is expressly prohibited and signed. Off-route travel to the parking spot must not damage the land, vegetation, or streams and no live trees may be cut. (FSM 2355.03, R2 Supp. 2300-93-07). BLM restrictions do not allow this, but rather, allow people to park vehicles no further off route than the shoulder of the road. This inconsistency in FS/BLM restrictions would become even larger under this alternative when open travel areas become restricted travel areas. It would also create an inconsistency between restricted areas on the Gunnison National Forest and with surrounding national forests (which allow travel 300 feet off roads and trails).

Restricting dispersed recreational opportunities to 100 feet could reduce the length of new roads and trails leading to dispersed sites, thus reducing the resource impact of these routes. These sites continue to get pushed farther off the road each year, and new roads or trails are created.

Many of the new routes created to access dispersed camping sites are located in biologically sensitive riparian areas along streams. Allowing visitors to drive as much as 300 feet off existing roads and trails would continue to permit impacts in these sensitive areas. This activity would still continue in some places if campers are allowed to drive 100 feet off road and trails, but the overall impacts would be less.

D. IRREVERSIBLE and IRRETRIEVABLE COMMITMENT OF RESOURCES

While there would be no permanently irreversible and irretrievable impacts to the recreation resource under any of the proposed alternatives, the continued use of these public lands by unrestricted/area-wide motorized use is creating long-term effects that are very difficult to reverse. The routes being pioneered can be rehabilitated, and over time may recover depending on site productivity. However, the longer these uses are allowed the more substantial and difficult the effects become. In some cases, many routes are prohibitively expensive for the agencies to rehabilitate.

E. CUMULATIVE EFFECTS

The demand for recreation in and around the GTAA is growing and the demand is varied. People desire a satisfying recreational experience.

Cumulative effects that are detrimental to recreation in general are greatest under the No Action alternative. With 71% of the GTAA currently managed as open travel, vehicular recreation is relatively unmanaged. "Open travel" presents the greatest potential for user conflicts, resource damage, and social conflicts. This leads to an undesirable recreational experience. The population will continue to increase in and around the GTAA, and consequently, demand for recreation will increase. As motorized and mechanized use increases, there would be more displacement of non-motorized users to designated Wilderness and already restricted areas. This would lead to more impacts in Wilderness areas, and eventually a loss of opportunity for solitude there. The GTAA would continue to lose semi-primitive non-motorized recreation opportunities outside of Wilderness.

The elimination of off-route wheeled-vehicle use would have a positive cumulative effect on GTAA resources and resource values. It would help slow or stop the incremental degradation of resources caused by the proliferation of roads and trails. Over time, user conflicts, opportunities for solitude, soil and water, and wildlife habitat resources would improve under the Proposed Action. Without off-route motorized travel restrictions, user conflicts, opportunities for solitude, soil and water, and wildlife habitat resources would continue to degrade.

The Proposed Action and Alternative 3 would provide more positive long-term effects for recreation than Alternatives 1 or 2. Under all alternatives, recreationists would still have an opportunity to use motorized and mechanized vehicles on a large and established transportation system within the GTAA.

Alternative 2 and the No Action alternative would provide for game retrieval during all big game seasons. Alternative 2 would provide ATV off-route travel for nearly four months of the year. Neither alternative would help decrease or lessen the issues raised within the Purpose and Need for the Proposal found in Chapter 1. The cumulative effect of both alternatives would be a continuation of resource degradation and user conflicts. New routes would continue to be created.

ROADLESS AREAS

A. *AFFECTED ENVIRONMENT*

Within the GTAA there are a number of Forest Service Inventoried Roadless Areas. Since 1970, the Forest Service has inventoried and studied roadless areas greater than 5,000 acres, and roadless lands regardless of size that are adjacent to existing wilderness. These roadless areas are referred to and tracked today as Inventoried Roadless Areas. Some of these areas were recommended for Wilderness designation in the Forest Plan, and have since become Wilderness, such as Powderhorn and portions of the Raggeds.

In 1979 the Roadless Area Review and Evaluation (RARE II) identified 27 roadless areas on the Gunnison National Forest, totaling approximately 1.1 million acres. Table 1 lists these areas by number, name, and acreage.

Table 1. RARE II Areas on the Gunnison National Forest

RARE II Number and Name	RARE II Acres
180 Elk Mtns - Collegiate	138,400
181 Raggeds	123,920
182 Drift Creek	1,440
184 Springhouse Park	16,000
185 Electric Mtn	8,600
186 Clear Creek	29,440
191 Priest Mtn	26,880
196 West Elk	208,410
198 Beaver-Castle	62,780
199 Gothic Mountain	6,700
200 Whetstone Mountain	16,500
201 Flattop Mountain	23,530
202 Boston Peak	50,100
203 Matchless	35,600
204 Crystal Creek	91,680
205 Kreutzer-Princeton	13,300
206 Romley	8,900
207 Canyon Creek	14,000
209 Cochetopa Hill	65,680
210 Cochetopa Dome	7,000
211 Monchego	3,520
212 Sawtooth Mountain	45,400
215 Mineral Mountain	51,600
217 Middle Fork	19,500
218 Cannibal Plateau	31,990
220 Carson Peak	27,600
358 Chipeta	16,520
TOTAL	1,144,990

The information in Table I was obtained from the Forest Service's RARE II Summary - Final Environmental Impact Statement Roadless Area Review and Evaluation dated January 1979. Some of the areas listed in the chart below have since received Wilderness designation, and some have since become roaded.

In the 1980s and early 1990s, the BLM went through a process of inventory, analysis, and recommendation for lands that could be included in the National Wilderness Preservation System. An EIS was completed and the report submitted to Congress. The GTAA contains only one Wilderness Study Area (WSA), which the BLM manages. OHV use in the WSA is currently unrestricted. This WSA is adjacent to the Powderhorn Wilderness, which is jointly managed by the FS and BLM. BLM is committed to preventing impairment of wilderness values by any type of use in all their WSAs.

B. ISSUES

This section provides information related to the following issues identified in Chapter I of this EA.

- *Adverse resource impacts caused by unrestricted off-route vehicular use*
- *Conflicts between motorized and non-motorized Forest users*
- *Maintaining roadless character in inventoried roadless areas*

C. *EFFECTS ASSOCIATED WITH THE ALTERNATIVES*

PROPOSED ACTION: ***Restrict motorized/mechanized vehicle use to existing routes***

Restricting off-route wheeled-vehicle travel to existing routes would reduce the creation of future user-created roads and trails. Eliminating cross-country travel would further enhance the protection of the physical naturalness of these areas. It should begin to allow nature to reclaim some damaged areas.

ALTERNATIVE 1: ***No Action - Existing travel management direction would remain unchanged***

Cross-country motorized and mechanized travel would continue on 1.5 million acres off of existing, established routes.

While single-track motorcycle and mountain bike use may create routes that are consistent with roadless character, the proliferation of these routes "degrades" the overall character of the area in terms of candidacy for wilderness designation. The extension of ATV-wide routes does alter the character of the area and make it more of a "roaded" condition. If travel restrictions were not changed to limit use to existing routes, the proliferation of new routes would continue in Roadless Areas. The eventual cumulative effect of this would be the accelerated loss of areas with roadless character in the GTAA.

ALTERNATIVE 2: ***Allow use of off-route vehicles for big game retrieval***

Allowance of limited ATV use to retrieve game, if properly enforced, would have some effect, but a very small one on the roadless character of an area. One pass by an ATV over terrain to retrieve a downed animal should not result in new routes. It would leave tracks, which may catch the eye of the new person in the area, but these would be temporary, unless wet meadows are rutted or vegetation is cut. This alternative only allows off-route use providing resource damage does not occur, however, allowing ATV use for game retrieval would invite occasional resource damage.

Many roadless areas on the Gunnison National Forest provide the highest quality hunting areas for elk in the western United States. Whether hunters rely on their ATV to retrieve game after a kill does not have a substantial effect on the nature of the hunting experience, but may affect the range or distance from roads that hunters are willing to hunt. Over time, retrieval of game would result in observable impacts to soils, water and vegetation (see those sections of the EA), which in turn do alter roadless values. However, by comparison with the substantially greater effects of the No Action Alternative this effect would be minor.

ALTERNATIVE 3: ***Reduce off-route travel restriction from 300 feet to 100 feet***

In a perfect world, this alternative would show no change in effect to Roadless Areas, because if an area is roadless, by definition, there are no roads to travel off of. However, many of the inventoried roadless areas do contain roads and trails. By curtailing off-route travel to 100 feet off of established routes, it would lessen the likelihood of user-

created routes from 300 feet to 100 feet on both sides of an established route. This would have a minor effect on the character of roadless areas.

D. IRREVERSIBLE and IRRETRIEVABLE COMMITMENTS OF RESOURCES

While there would be no permanently irreversible and irretrievable impacts to the resource under any of the proposed alternatives, the continued use of these public lands by unrestricted/area-wide wheeled vehicle use, and especially motorized use is creating long-term effects that are difficult to reverse. The routes being pioneered can be rehabilitated, and over time would recover. The longer these uses are allowed to continue the more substantial and difficult to rehabilitate their effects become. This effect is of particular concern in roadless areas as it is the absence of roads that, by definition, sets them apart from other areas of the National Forest. The character of roadless areas would be most protected by implementing the Proposed Action.

E. CUMULATIVE EFFECTS

Motorized and mechanized opportunities would continue to be provided on existing routes and trails on the GTAA. These routes and trails provide a wide range of opportunities for the novice and expert alike.

The elimination of off-route motorized use would have a positive cumulative effect on Roadless Area values. It is the cumulative effect of one route after another being pioneered and then used that is causing the concern on these public lands. One route has very little impact in terms of any of the issues areas. The cumulative total of the routes being pioneered has very real effect. Under the proposed action, and over time, the roadless character of some areas now being impacted and the associated, opportunities for solitude, quality of soil and water, and wildlife habitat resources would improve. Without off-route motorized travel restrictions, and when coupled with the impacts to roadless areas from other resource use and development such as timber sales and mineral development these values would continue to degrade.

The overall effect of allowing game retrieval in hunt areas that already have a mix of motorized closures and restrictions would be confusing to the public and would create a difficult management situation.

WILDLIFE

A. AFFECTED ENVIRONMENT

The nature of the topography, climate, and vegetation within the GTAA provides ecosystems that support over 300 wildlife and fish species. Approximately 90 of these species are hunted, fished or trapped. Species of special interest include big game, game birds, waterfowl, carnivores, predators, furbearers, those designated sensitive, and those listed as threatened or endangered. Threatened and endangered species are listed in Appendix B, as are BLM and FS sensitive species.

Wildlife Habitat

The following vegetative zones describe habitats within the GTAA:

The **adobes** – The lowest elevation vegetation type within the GTAA is the adobe grasslands/shrublands ranging in elevation range from 5,000 feet to 7,600 feet. Precipitation in this zone averages 8-10 inches per year. This area is primarily composed of Mancos-shale soils. Plant species found in this type are western wheatgrass, squirreltail, Indian ricegrass, a variety of forbs, greasewood, saltbrush, sagebrush and other species tolerant of saline soils and low moisture availability. Both elk and deer use this zone during winter.

Foothill woodlands – This vegetation zone consists of varying densities of pinyon-juniper (PJ), with understories of shrubs and forbs. Understory vegetation is dependent on the density of the PJ overstory. Understories include sagebrush, Gambel oak, serviceberry, chokecherry, and squaw apple. Herbaceous vegetation includes western wheatgrass, galleta, Indian ricegrass and cheatgrass. This zone ranges from 6,500 feet to 8,000 feet in elevation. Riparian habitat in this zone is composed of cottonwood, willow, alders and sedges. This zone is important to deer and elk as winter and transitional range. Openings and understories containing browse species, sagebrush, rabbitbrush, mountain mahogany, serviceberry and forbs are important feeding areas. Deer generally use this area for a longer portion of the year than elk.

Deciduous shrubland - This zone occurs from 7,500 feet to 8,500 feet. Gambel oak, serviceberry, chokecherry, and mountain mahogany are the dominant vegetation. Understories include Kentucky bluegrass, sedges and forbs. Riparian habitat is similar to that within the foothills woodland zone with the inclusion of additional deciduous tree species such as alder, dogwood, and mountain ash. This zone is also important deer and elk winter and transitional range. Black bear use this zone in spring and fall to forage on mast, berries, and early green-up of forbs. Many bird species including Lewis' woodpecker favor riparian areas within sight of shrublands. Small openings within shrublands are important feeding areas for bird species that feed on insects.

Sagebrush steppe – A large portion of the GTAA is sagebrush-dominated steppe below 9,400 feet. The steppe is dry, influenced by the rainshadows, lower elevations, and cold air drainage. Big sagebrush, black sagebrush, and bitterbrush are the common shrub species. Small patches of Douglas-fir, blue spruce, aspen, and serviceberry occur in protected places. This zone provides important habitat to the Gunnison sage grouse.

Montane – The montane zone consists of mixed-conifer, aspen, lodgepole and Engelmann spruce-subalpine fir forests. Engelmann spruce, subalpine fir, aspen, ponderosa pine, lodgepole pine, bristle cone pine, Douglas fir, blue spruce, limber pine (also identified as southwest white pine) are the dominant tree species.

Ponderosa pine dominated or pure stands are limited in extent on the Gunnison National Forest. Where they occur is in patches along the lower forest edge against the sagebrush steppe and on southerly aspects. Stand elevations range from 8,400 to 10,400 feet.

Ponderosa pine is a component of the mixed-conifer cover type. As with several other forest cover types, ponderosa pine are mostly mature to overmature.

Lodgepole pine is the dominant species in extensive forests between the edge of the sagebrush steppe at 8,700 feet up to the alpine timberline at 12,300 feet in the Gunnison Basin. Most of the lodgepole pine occurs in pure stands which lack species or structural diversity. The Cochetopa Hills area is on the southern edge of the lodgepole pine range. The forests of Taylor Park and Pitkin are up to 90% lodgepole pine dominated.

Douglas-fir/blue spruce stands with fewer other tree species are found elsewhere on the Gunnison National Forest at lower elevations, usually on steeper, north aspects and in canyons such as near Blue Mesa Reservoir, along the Lake Fork Gunnison, and along Anthracite Creek. In recent years, the Douglas-fir/blue spruce cover type has been extensively impacted by western spruce budworm defoliation and mortality.

Aspen stands cover large portions of the North Fork of the Gunnison watershed and Kebler Pass. In those areas mature aspen stands with dense, large and tall trees are the norm. Many aspen stands have an understory of Engelmann spruce and subalpine fir seedlings and saplings. The aspen groves of Kebler and McClure Passes represent the best aspen can be. Elsewhere on the Gunnison National Forest aspen occurs in pure stands or mixed with conifers on a wide variety of slopes, aspects, and terrain from the sagebrush steppe to the alpine. The best expression of aspen is between about 9,400 and 10,200 feet elevation on southerly aspects.

Engelmann spruce-subalpine fir forest occurs in the **subalpine zone** between 8,300 and 11,000 feet. Spruce-fir stands normally occur on sites higher, cooler and moister than those of lodgepole pine or mixed-conifer. Blue spruce, cottonwoods, alder and willow species are found in riparian areas. Portions of the lower elevations in this zone are used as elk calving and deer fawning areas. Higher elevation areas are used as summer range by elk and deer. Late-successional mixed conifer, spruce/fir and aspen forests provide important habitat to several sensitive species including the pine marten, goshawk, three-toed woodpecker and boreal owl. These species are dependent on these forested sites for breeding and foraging.

Alpine - The alpine tundra occurs from 11,800 to 12,300 feet elevation. The characteristic vegetation is very low herbaceous species such as curly sedge, alpine avens, and tufted hairgrass. At high elevations there are extensive talus fields. Moist areas host a low shrub cover of several willow species. The willow cover is important for ptarmigan and big game summer range. Bristlecone pine-dominated stands are common south of Gunnison in the rainshadow area. Bristlecone pine is usually associated with the alpine.

Elk and mule deer are the most common big game species and are widely distributed across the GTAA. Populations of bighorn sheep occur in the West Elk Wilderness, Almont Triangle area, Lake Fork and Dillon Pinnacles near Blue Mesa Reservoir, Lake City, Quartz Creek in the Pitkin area, Cochetopa Canyon, Rock Creek, and Cebolla area.

The most common mammalian predators on the GTAA include coyote, black bear, mountain lion, bobcat, and American marten. Among the many bird species are raptors and neotropical migrants, as well as game species, such as the wild turkey, sage grouse, and blue grouse.

Several species are found in specialized habitats such as cliffs and caves. Fish and most amphibians are entirely restricted to streams, ponds, and other wetland areas.

The area that could be affected by the proposed interim travel management regulation changes also contains habitat that supports, or potentially supports, a variety of listed, candidate, and USFS and BLM sensitive species (see TES section).

Existing Impacts From Roads and Trails on Wildlife

Many factors have the potential to affect wildlife, however this analysis is focused on the effects to wildlife that result from changes in motorized use patterns within the GTAA. The major conflict between wildlife and motorized recreation is disturbance to wildlife. This disturbance can result in stress and displacement of animals, nest or territory abandonment, destruction of nests and habitat, interruption of breeding behavior, and death of animals.

Roads result in the direct loss of habitat for most wildlife species. Roads may also indirectly represent a loss of habitat due to the displacement effects caused by human disturbance, thus reducing the effectiveness of habitat along roads. The proliferation of user-created roads and trails, and increases in motorized off-route vehicle use, have resulted in increased disturbance to wildlife and reduced habitat effectiveness in some areas.

On managed public lands, a developed road and trail system is needed to provide adequate motorized access for a variety of management and recreational activities. Public lands have had a large increase in the numbers of users in recent decades and a large increase in the amount of motorized off-route vehicle use. Some of this off-route use has resulted in a network of user-created trails. These routes are not properly engineered and often pass through sensitive habitats such as alpine tundra, steep slopes, wet meadows, and riparian habitats. "Incremental creep" characterizes some of these routes. That is, they are pushed a little farther each year into previously unroaded areas through clearing or sometimes just through exploration and repeated use.

Motorized off-route vehicle use and the creation of user-established roads/trails can impact wildlife habitat and wildlife habitat effectiveness in the following ways:

- Direct impacts on vegetation and habitats for all wildlife species;
- More roads and disturbance on winter range areas;
- A decrease in elk habitat effectiveness as once remote and secure habitats become easily accessible;

- Displacement of wildlife to private lands. In some parts of the GTAA, elk are pushed onto adjacent private lands where hunter access is restricted. This also results in decreased hunting opportunities and harvest for hunters on public lands;
- Elk spend more time on private lands and compete with domestic livestock for forage. This may result in more depredation claims submitted to the Colorado Division of Wildlife; and
- There has been an increase in user conflicts, primarily between motorized off-route vehicle users and others preferring non-motorized recreational experiences (e.g., hiking, horseback riding, wildlife viewing, photography, etc.) and decreased opportunities for people who enjoy non-motorized recreational experiences.

C. *EFFECTS ASSOCIATED WITH THE ALTERNATIVES*

PROPOSED ACTION: ***Restrict motorized/mechanized vehicle use to existing routes***

Under the Proposed Action, roaded access would not change since no roads would be opened or closed. Therefore, the effects of existing open roads on wildlife and wildlife habitats would not change. However, the reduction in off-route wheeled-vehicle travel use that would occur under the Proposed Action would have a positive effect on wildlife and wildlife habitats. The Proposed Action would only allow off-route motorized travel for 300 feet on either side of an existing road versus the 1.5 million acres currently available for such activity. This off-route travel would not include OHV use for game retrieval.

Disturbance to Wildlife

Smaller animals, such as reptiles and amphibians are more likely to be directly killed by vehicles and are especially vulnerable when crossing roadways. Motorized cross-country travel may disrupt habitat to the point that it becomes unusable by reptiles and amphibians (Busak and Bury 1974). The diversity and density of small mammals in an area is inversely related to the level of off-road vehicle use (Bury et al. 1977). Habitat modification through vegetation and soil disturbance may also impact many small mammals. Sensitive habitats such as alpine areas, bogs, and arid areas would be most vulnerable from impacts to vegetation.

Impacts to small mammals may not be immediately obvious. According to Knight and Cole (1991), effects often include abandonment of disturbed areas in favor of undisturbed sites, or, in some cases, attraction to recreational activities (Phelps and Hatter 1977, Klein 1971). This may lead to behavioral changes such as mating, feeding and predator avoidance.

Some raptors such as the ferruginous hawk can be extremely sensitive to vehicular visits, especially during courtship and nest building. Disturbance during these time periods can result in nest abandonment. With increased recreational pressures raptor populations could decline.

Effects from habitat fragmentation are recognized with songbirds. Roads and trails add to forest fragmentation by dissecting large patches into smaller pieces and by converting

forest interior habitat into edge habitat (Askins 1994, Askins et al. 1987, Reed et al. 1996, Schonewals-Cox and Buechner 1992). Fragmentation of limited, high -value habitats such as riparian areas may cause some of the most severe impacts to songbirds.

One of the most serious impacts on wildlife from vehicles has been indirect. Vehicle traffic on and off roads has been linked with high rates of establishment and spread of noxious weeds in wildlife habitat. Competition from noxious weeds may reduce the quality and quantity of summer forage for ungulates, resulting in poor reproductive performance over the lifetime of the animal.

Limiting wheeled-vehicle travel to existing and established routes will reduce encroachment into wildlife habitat. Sensitive habitats like meadows, riparian areas and wetlands will be protected from further degradation. Interior-forested habitats would also be protected from further degradation. The spread of noxious weeds is expected to be lower under this alternative.

Elk Security Areas

Hillis et al. (1991) state that elk security areas should be at least 250 acres in size. If existing security areas are smaller than 250 acres, management activities should be directed to achieve larger blocks. Effectiveness declines if the security area is within one-half mile of open roads or if closed roads bisect the area. Terrain features can mitigate impacts of roads to some degree. Security is defined as the protection, in any situation, that allows elk to remain in a defined area despite an increase in stress or disturbance associated with hunting or other human activities (Lyon and Christensen 1990). Restricting motorized travel to existing and established routes, the Proposed Action, would increase elk security habitat by reducing future user-created roads and trails which, in effect, would increase the amount of undisturbed acres that are more than one-half mile from a road. The Proposed Action would also eliminate the "incremental creep" into areas that are now providing security to elk therefore protecting these areas from further degradation. Analysis and designation of elk security areas within the GTAA is appropriate during the more detailed route-by-route analysis.

Elk Habitat Effectiveness

Elk habitat effectiveness is another measure of the ability of different habitats to meet elk growth and welfare requirements. Elk habitat effectiveness in and of itself is often misapplied as a measure of security during hunting season. Habitat effectiveness is defined as the percentage of available habitat that is usable by elk outside the hunting season (Lyon and Christensen 1992). Summer range includes the habitat used by elk from about late green-up until they move to winter ranges. Summer range is the complete matrix upon which elk herds depend for growth, reproduction, and thrift. Management focus is on maintaining the ability of the habitat to meet elk needs for forage, water, seclusion, and special features such as licks and moist areas (Christensen, et al 1993). Elk security areas and elk and deer habitat effectiveness are further discussed in the Wildlife cumulative effects section.

ALTERNATIVE 1: ***No Action - Existing travel management direction would remain unchanged***

The 1.5 million acres of federally managed lands in the GTAA currently open to off-route wheeled-vehicle travel would continue to be open under the No Action Alternative. Many hunting and fishing areas would continue to be accessed by motorized means. Hunters would be able to retrieve downed game with any motorized or mechanized means in areas open to off-route travel, provided that resource damage does not occur.

All open roads (4,133 miles) would continue to be available for motorized travel.

It is assumed that public land use, as well as motorized off-route vehicle use, would continue to increase in the GTAA. Consequently, there would be a corresponding loss of opportunities for solitude to dispersed recreationists and continued conflicts between Forest visitors. These are two factors that appear to increase off-route motorized use into more secluded areas as people search for solitude. When access to these areas receives repeated use, the result is a continued proliferation of user-created roads and trails.

Under these circumstances, resource degradation would continue in the form of disturbance to wildlife and damage to wildlife habitats, including the soil and water resources. As more and more habitats that were once remote and secure become easily accessible, elk habitat effectiveness would continue to decline. The displacement of wildlife to private lands can be expected to continue or increase. Disturbance to other species is expected to increase.

ALTERNATIVE 2: ***Allow use of off-route vehicles for big game retrieval***

All aspects of the Proposed Action apply to Alternative 2. In addition, Alternative 2 would allow OHVs to travel off of existing and established roads and trails during big game hunting seasons only to retrieve game, providing resource damage does not occur. For the purposes of this alternative, big game is defined as elk, deer, antelope, bear, mountain goat, and bighorn sheep.

Differences between this alternative and the No Action alternative explain some of the rationale for the game retrieval alternative. Under the No Action alternative (Alternative 1), unlimited off-route motorized access would continue for a variety of recreational activities including, hunting, accessing remote hunting or fishing areas, game retrieval, sight-seeing, exploring, hill climbing, etc. This use would occur during the entire snow-free period. Under Alternative 2, off-route motorized travel beyond the 300-foot limit would occur only while retrieving downed big game animals during fall hunting seasons. All of the effects described under the Proposed Action would apply to Alternative 2.

The assumption is that this level of off-route motorized use represents a reduction in the amount of use that currently exists. Thus, it is assumed that, compared to the No Action Alternative, reduced off-route motorized opportunities would lessen impacts to wildlife habitat effectiveness and elk security areas. It would also reduce resource damage and conflicts with various Forest users and landowners. This alternative reduces the amount of days and assumes a reduction in the amount of users who will travel cross-country;

however, the fall hunting seasons are typically the highest recreational use period on the GTAA, so the reduction of cross-country travel may only be slight. The majority of cross-country travel occurs during fall hunting seasons. In addition, this alternative has a potential for user-created routes and incremental creep into more remote areas to continue to increase. Non-compliance and effective enforcement are potential problems associated with game retrieval.

ALTERNATIVE 3: ***Reduce off-route travel restriction from 300 feet to 100 feet***

Alternative 3 is very similar to the Proposed Action. The only difference is that wheeled-vehicle travel off of existing and established routes would be reduced from 300 feet to 100 feet, providing resource damage does not occur. Only activities like camping, picnicking, and firewood gathering could occur within this 100 feet; use of ATVs for game retrieval would be limited to existing roads and trails. This alternative was developed because many people felt the restrictions contained in the Proposed Action did not go far enough in reducing the effects of off-route motorized travel. In addition, many people desired that the user-created roads and trails that have appeared in the last 10-20 years be closed and obliterated. Road closure, however, is not part of the Proposed Action. Any road closures, openings, or design of new motorized trails that would occur in the future, will need more site-specific analyses.

The effects of this alternative would be similar to those described under the Proposed Action. Compared to the Proposed Action and the other alternatives, Alternative 3 would have the least impact on wildlife and wildlife habitats, including soil and water resources.

D. IRREVERSIBLE and IRRETRIEVABLE COMMITMENTS OF RESOURCES

None of the alternatives analyzed in this EA would result in irreversible and irretrievable impacts to the wildlife resource. Although the proliferation of user-created routes would likely continue if the No Action alternative or Alternative 2 was selected, the resulting effect of reduced habitat effectiveness would not be irreversible or irretrievable. This effect could be reversed, over time, if a future decision were to restrict off-route motorized travel across the entire Forest.

E. CUMULATIVE EFFECTS

There are numerous management activities occurring in and adjacent to the GTAA that are associated with the development and use of routes. These activities create varying degrees of access to areas on Forest and BLM lands. These activities include water diversions and reservoirs, spring developments and pipelines, right-of-ways and easements; coal exploration drilling activities, oil and gas drilling operations, timber harvest, fence construction and pond development associated with livestock grazing management, outfitter and guide operations, and trail and road construction. Many roads are authorized under a special-use permit. Roads developed for management activities are often closed to minimize effects to wildlife and recreationists. Closure by gating and even obliteration still leaves a change in habitat conditions for a period of time and can contribute to a decrease in wildlife habitat effectiveness. However, the activities listed above are "managed" through a process that enables the public and land managers to address the location of routes, conflicts and mitigations that may be associated with a

particular route and make decisions which are best for protection of resources. In areas presently open to cross-country travel, routes are for the most part "unmanageable." Identifying the location and condition of user-created routes is time consuming and difficult. Having an inventory of all user-created routes is difficult because of how fast routes are created. The managed activities coupled with unmanaged user-created routes are cumulatively impacting wildlife and wildlife habitat.

Off-route vehicles do not operate in a vacuum or in areas unused for other purposes. For example, wildlife populations on public lands are subject to hunting or control activities in some places (certain predators). In some areas they may be in competition with livestock for food, water, and cover. Wildlife may be restricted in range or carrying capacity due to agriculture, roadways, and habitat alteration. Thus, off-route vehicle disruption of habitat is an additional factor interacting with several other forces detrimental to wildlife (Bury 1980). Another immediate response of wildlife to recreational disturbance is change in behavior. One behavioral change is abandonment of disturbed areas in favor of undisturbed sites (Knight and Cole 1991). Elk tend to be more disturbed by people engaged with out-of-vehicle activities than by traffic or equipment on Forest Service system roads. Logging and recreation roads with traffic moving mostly during the daytime had little effect on elk activity within 400 meters once elk became used to them. Elk preferred to be at least one-half mile from out-of-vehicle human activities (Ward 1973, 1976, 1985).

Displacement into new environments can lead to a number of further behavioral changes, such as altered feeding ecology. On the Medicine Bow National Forest, Ward (1985) showed that when displaced, elk often move to other areas that are already occupied, placing additional demands on food supplies. New access routes with no traffic controls are the most serious problems contributing to this situation. Increased off-route motorized access can worsen the problem. For example, Yarmoloy et al. (1988) disturbed radio-collared female mule deer with an ATV and noted that harassed deer altered feeding and spatial-use patterns, while undisturbed animals maintained normal usage. The harassed mule deer shifted feeding times more into the night, used cover more frequently, left their home ranges more often, and increased flight distance from the ATV. Additionally, disturbed deer experienced decreased reproduction the following year.

Disturbance can also reduce the vigor of individuals and ultimately result in death. Elevated heart rates, energy expended in disturbance flights, and reduction of energy input through disturbance will all increase energy expenditures or decrease energy acquisition (Knight and Cole 1991, MacArthur et al. 1982, Gabrielsen and Smith 1995, Ward and Cupal 1979).

To reduce recreation-related displacement, managers should control the proximity, frequency, duration, and seasonal timing of disturbances (Gutzwiller 1995). The severity of most recreational impacts on animal habitat is influenced by the amount of use that occurs. Since impact levels generally increase as use levels increase, indirect influences on wildlife could be limited by controlling the amount of recreation allowed. The nature

and severity of recreational impacts are influenced by both the type and spatial extent of use. Motorized recreational activities are generally much more disruptive than non-motorized activities. Motorized use can be prohibited in areas of concern or restricted to particular roads, trails or locations. This confinement strategy is one of the most commonly employed techniques in recreation management (Cole and Landres 1995).

Cumulative effects that are detrimental to wildlife and wildlife habitats are greatest under the existing management condition (No Action alternative). If the present situation continues with no restriction to off-route travel by wheeled modes of travel, along with increasing recreational pressure, added impact to wildlife and wildlife habitat would result. More roads and trails would be pioneered causing more disturbances to wildlife, a decrease in wildlife habitat, and an increase in noxious weed areas, which degrade wildlife habitat.

The Proposed Action Alternative and Alternative 3 would be positive actions for wildlife. Alternative 3 would be more beneficial to wildlife than the Proposed Action as it would protect more area from degradation.

Elk Habitat Effectiveness

Roads are undoubtedly the most significant consideration on elk summer range (Christensen et al. 1993). Relatively sophisticated technologies exist for calculating habitat effectiveness. Christensen et al. (1993) give several sources of information for habitat effectiveness and the major factors that influence it. Their first recommendation in evaluating habitat effectiveness is to include a road model in the analysis.

Some models used to evaluate habitat effectiveness use only open road density (e.g., Lyon 1983). Others include cover and foraging area information. Elk and mule deer habitat effectiveness are often evaluated for land management project proposals (such as timber sales) using the USFS Region 2 Habitat Capability computer model (HABCAP). HABCAP takes into consideration the amounts of hiding cover, foraging areas, and roads. Although this model is not expected to produce accurate predictions of actual populations of wildlife species, it is useful in comparing the relative magnitude of changes in existing habitat.

All models for examining habitat effectiveness assume that more open roads, indicated by higher open road density in the algorithms of the model, cause decreases in habitat effectiveness. A disadvantage is that these models uses open road density information. These models do not, however, provide a mechanism to account for off-route motorized travel. The Region 2 HABCAP model uses open road density classified by the degree of use on a particular road or trail. For off-route travel this can be difficult to assess. Also this model is applied to diversity units as defined within Forest Plans. These units are generally based on fourth order watersheds and are roughly 5,000 to 20,000 acres in size. Applying HABCAP to larger units can produce misleading results because all acres entered into the model might not actually be available to a species. HABCAP is a useful tool for project analysis to assist in determining differences in management alternatives.

Because the proposed action and alternatives apply to a broad area and do not include specific route-by-route decisions, habitat modeling was not done for this analysis. Rather, the more general understanding from both research literature, and field observation by agency and Colorado DOW biologists is reported here and in other parts of this EA. In short, off-route travel into remote areas reduces habitat effectiveness substantially.

AQUATIC RESOURCES/FISHERIES

A. AFFECTED ENVIRONMENT

The aquatic environments affected by this proposal are on lands which drain into the following fourth-order watersheds: North Fork of the Gunnison River, Taylor and East Rivers, Upper Tomichi, and Upper Gunnison Rivers.

Streams, lakes, springs and wetlands provide habitat for fish, fresh water invertebrates, and amphibians, wildlife; livestock; domestic water uses; recreational opportunities; power generation and salinity reduction. Water is important in supporting riparian communities. Water flowing from public lands has been used for irrigation for over 100 years. Water resources have been intensively and extensively developed for the purpose of meeting irrigation needs. Within the GTAA, there are portions of fifth level watersheds that the local communities of Paonia and Mt. Crested Butte use as a source for public water supply.

Fish species present within the GTAA include rainbow trout, brook trout, brown trout, Colorado River cutthroat trout, Snake River cutthroat trout, Yellowstone cutthroat trout, golden trout, kokanee salmon, lake trout (Makinaw (sp.)), sculpins, dace and shiners. There are a variety of macroinvertebrates within stream and lake environments in the GTAA including: mayfly, stonefly, and caddis fly larvae, *Gammarus* sp., aquatic worms, beetles, clams, and snails. These animals provide an important food source for fish.

B. ISSUES

This section provides information related to the following issues identified in Chapter I of this EA:

- *Conflicts between motorized and non-motorized Forest users;*
- *Adverse resource impacts caused by unrestricted off-route vehicular use.*

C. EFFECTS ASSOCIATED WITH THE ALTERNATIVES

PROPOSED ACTION: ***Restrict motorized/mechanized vehicle use to existing routes***

One of the main impacts of travel of any type over an unconsolidated surface is to loosen and displace soil material, making it susceptible to being washed into the drainage network to become sediment. The type of travel and surface and size of the travel route

are also factors determining how much material is available as potential sediment. As the weight, size and torque of various modes of travel (foot, horse, ATV, full-sized vehicle) increase, the potential to loosen soil increases. Routes composed of unsurfaced native material have greater potential of producing sediment than do surfaced routes. Also, the more surface area bared and disturbed, the greater the likelihood for the material to become sediment. Where and how much of this potential sediment impacts the watershed depends on a number of things. These factors include: how close to the stream network the travel route is; the climatic situations during use; whether the route crosses a stream, and the condition of that crossing. It has been found that roads and trails can act as channels that multiply sediment loads to the stream network during runoff events.

Travel routes also tend to increase runoff due to compaction of the soil, decreased infiltration and lack of vegetation. This could increase the magnitude and duration of high flows causing stream channels to erode their banks, such that their stability and aquatic habitat are damaged. Bank damage can add large amounts of sediment directly into streams. Brown (1994) evaluated riverbed sedimentation caused by OHVs at river fords. Five major processes by which locally eroded sediment was added to the stream channel were identified: the creation of wheel ruts and concentration of surface runoff, the existence of tracks and exposed surfaces, the compaction and subsequent reduction in the infiltration rate of soils leading to increased surface runoff, backwash from the vehicle, and undercutting of banks by wave action. Not surprisingly, it was determined that as vehicle traffic increased so did sediment deposited in the stream.

Sediment can be described as suspended solids in the form of silt, clays and other fine materials that cause temporary to permanent turbidity or murkiness. Prolonged turbidity can cover the streambed with silt, which can smother macroinvertebrates, cover spawning areas, and reduce photosynthetic rates. Turbidity can cause feeding problems for sight-feeding trout and gill irritation to most fishes with the exception of those adapted to year-round turbidity. Additionally, streams with large loads of organic material may deplete oxygen to levels unfavorable for clean-water aquatic species.

Because they would restrict travel to existing roads and trails, the Proposed Action and Alternative 3 would provide the greatest reduction in sedimentation, stream bank erosion, compaction of soils, loss of vegetation, and compaction of riparian soils and vegetation. Habitat alteration and sediment generated by OHVs and other wheeled modes of travel are not expected to spread to new areas under the Proposed Action.

ALTERNATIVE 1: ***No Action - Existing travel management direction would remain unchanged***

Cross-country use of OHVs and other modes of wheeled travel in popular use areas would likely continue to increase, as would the negative effects of such use on streams, wetlands, and riparian areas. User-created routes from OHVs and other modes of wheeled travel would incrementally increase road densities. Due to topography and vegetation, this process will most likely continue to occur more rapidly in the arid and less steep terrain. Many of the effects associated with water and water resources are often localized in the arid geographic settings where little fish habitat is available, such as

the many isolated and fragmented lands administered by the BLM. These lands are "brittle" in that they take longer to recover from soil compaction and loss of vegetation, factors which greatly influence water infiltration into the soil.

Implementation of the No Action Alternative would continue to allow access to riparian areas, stream channels, and wetlands. Erosion, sedimentation and riparian area degradation would continue to occur with the No Action Alternative.

ALTERNATIVE 2: ***Allow use of off-route vehicles for big game retrieval***

Under Alternative 2, cross-country travel beyond the 300-foot limit would only occur while retrieving big game animals during the fall hunting seasons. This alternative reduces the number of days and assumes a reduction in number of users who will travel off-route, however, typically the fall hunting seasons are the highest use period on the GTAA, therefore the reduction of cross-country travel may only be slight. Overall, the effects of this alternative would be less than those associated with the No Action Alternative because there are fewer days during which this activity could occur, and we are assuming there will be fewer users. Negative impacts associated with sedimentation, erosion, wetland and riparian degradation will occur, however they will be less than those expected from the No Action Alternative.

ALTERNATIVE 3: ***Reduce off-route travel restriction from 300 feet to 100 feet***

The effects of this alternative would be very similar to those described under the Proposed Action Alternative. Because of the reduction from 300 feet to 100 feet allowance in travel off established routes Alternative 3 would have the least impact to aquatic resources and fisheries habitat.

D. *IRREVERSIBLE and IRRETRIEVABLE COMMITMENT OF RESOURCES*

None of the alternatives analyzed in this EA would result in irreversible and irretrievable impacts to the aquatic or fishery resource. Although the proliferation of user-created routes would likely continue if the No Action alternative or if Alternatives 2 were selected, the resulting effect of increase sedimentation would not be irreversible or irretrievable. This effect could be reversed, over time, if a future decision were to restrict off-route motorized travel across the entire Forest.

E. *CUMULATIVE EFFECTS*

The greatest cumulative effects exist in areas where existing road densities are contributing to the degradation of aquatic habitat and watershed resources. If off-route travel and user-created routes increase as they has over the past ten years, it will continue to cumulatively impact aquatic and watershed resources. User-created roads and trails have a greater impact than designed roads and trails, since routes are created in sensitive areas like riparian areas or on sensitive and erodible soils and impacts are not mitigated. The interim prohibition on off-route, cross-country travel would maintain conditions in their current state in the short term until site-specific travel planning is completed. The Proposed Action and Alternative 3 would provide the best opportunity to prevent further degradation of the aquatic habitat and watershed resources.

THREATENED, ENDANGERED, AND SENSITIVE PLANT AND ANIMAL SPECIES

A. *AFFECTED ENVIRONMENT*

No identified critical habitat for any state or federally listed threatened or endangered species has been identified within or near the GTAA. Appendix B, Tables 1, 2 and 3, *Threatened, Endangered and Sensitive Species Occurring in the GTAA*, lists federal threatened, endangered, and sensitive species potentially occurring in the GTAA. The detailed analysis and determination of potential effects of the Proposed Action and alternatives on listed threatened and endangered species were documented in a Biological Assessment (BA) and are summarized in the Effects section. The BA is on file in the Paonia Ranger District office.

B. *ISSUES*

This section provides information related to the following issues identified in Chapter I of this EA:

- Adverse resource impacts caused by unrestricted off-route vehicular use.

C. *EFFECTS ASSOCIATED WITH THE ALTERNATIVES*

Plants

Threatened, Endangered, and Proposed Species: Suitable habitat for the Uinta Basin hookless cactus is the lower elevation Mancos shale badlands, which occur between 5,200 to 6,400 feet in elevation. Suitable habitat to the clay-loving wild buckwheat includes rocky hills, mesa slopes, and alluvial benches in desert shrub communities. These habitats occur between 4,500 to 6,000 feet in elevation. Populations of these species are known to occur with the GTAA on isolated BLM tracts or private lands.

Primary impacts to Uinta Basin hookless cactus and clay-loving wild buckwheat populations from off-route road use are direct mortality to individual plants in suitable habitats. Off-route travel is not currently known to be impacting these populations. Under the Proposed Action, impacts due to off-route travel to these listed plant species would be eliminated or reduced.

Sensitive Species: There are 26 sensitive plant species on the combined Forest Service and BLM list (see Appendix B). Of these twenty-six species, six occur in habitats that are not accessible to wheeled methods of travel; these habitats include walls, ledges, cliffs, alpine scree, and fens. Therefore, these species will not be impacted by any of the alternatives proposed in this EA. Off-route travel and user-created routes do occur in or adjacent to habitats suitable to the remaining seventeen sensitive plant species. These activities may cause direct mortality to individual plants, and may indirectly result in competition with noxious weeds that can be spread and established by off-route travel and its associated activities.

Wildlife

Threatened, Endangered, and Proposed Species: Bald eagle winter concentration areas, roost sites, or suitable nesting areas have not been identified within the GTAA. Preferred habitat areas of the Mexican spotted owl includes major canyon systems tributary to the Uncompahgre and Gunnison Rivers. In Colorado and Utah all Mexican spotted owls have been found in deep sheer-walled, sandstone or rocky canyons from 5,500 to 6,400 feet in elevation. Suitable canyon habitats occur within the GTAA and are largely unaffected by past and present management activities. The terrain and lack of timber harvest potential has limited road construction and off-route travel activities in these areas. Under all alternatives, travel management activities will not result in any direct or indirect effects to suitable bald eagle or Mexican spotted owl habitat.

Black-footed ferrets are not known to occur within the GTAA, however, potential habitat for this species does occur. Black-footed ferret habitat is associated with prairie dog towns. Surveys for black-footed ferret have been conducted outside but adjacent to the GTAA on BLM lands. Occupied ferret sites were not discovered. Off-route travel allows increased access to prairie dog habitat, which increases the likelihood of mortality from recreational shooting or accidentally running them over with a vehicle. This effect most likely has little effect on prairie dog populations. Under all alternatives, travel management activities will have no effect on the black-footed ferret.

The Southwestern willow flycatcher and whooping crane are dependent on aquatic and or wetland areas. Under the Proposed Action and alternative 3, impacts to aquatic, riparian and wetland habitats from off-route travel would be reduced or eliminated. Alternative 3 has the least potential of impacting aquatic, riparian and wetland habitats. Alternative 1 has the most potential for impacting these habitats.

Occupied Uncompahgre fritillary butterfly colonies are located either within designated wilderness areas or areas that are inaccessible by wheeled modes of travel. There is no effect to the Uncompahgre fritillary butterfly under any of the alternatives.

Preliminary information suggests that lynx may not be directly influenced by roads through displacement or avoidance, except at very high traffic volumes. There is some evidence that summer use of roads and trails may have negative effects on denning habitat, if lynx are forced to move kittens because of disturbance. Human activities in close proximity to den sites may disturb lynx and cause them to be displaced or abandon the den. Under the Proposed Action, eliminating off-route travel would reduce the effects described to lynx.

Sensitive Species: Sensitive species associated with aquatic, riparian and or wetland habitats include the boreal toad, northern leopard frog, tiger salamander, fox sparrow, white-faced ibis, long-billed curlew, and osprey. Potential impacts from off-route travel to these species includes direct destruction of habitat, nests, eggs, and fledglings, and intentional or unintentional disturbance to nesting birds from off-route travel and user-

created routes in or adjacent to suitable habitat. There is potential for direct mortality to individual amphibian species due to off-route travel in and adjacent suitable habitat.

The reptile species, longnose leopard lizard and milksnake, inhabit the lower elevation (below 6,000 feet), more arid vegetative zones of the GTAA. These species are vulnerable to being directly killed from crossing paths with an off-route vehicle or other mode of wheeled travel. Alternative 3 has the least potential of impacting these species.

The Canyon tree frog is only known to occur in John Brown Canyon, outside of the GTAA. Habitat for this species is associated with intermittent streams in deep rocky canyons. There will be no impact to this species under any of the alternatives presented.

Gunnison sage grouse habitat is specific to one particular plant type, sagebrush. The primary concerns associated with use of motorized and wheeled modes of transportation in their habitats are direct mortality, fragmentation and degradation of habitat, and conflicting uses during critical biological active periods. Critical biological activity periods are during winter (Nov.-March), breeding (March-May), nesting (April-June), and brood rearing (May-August). Conflicting uses are those that physically prevent sage grouse from using preferred habitats. These uses include human disturbance and motorized vehicles. Sage grouse are especially sensitive to fragmentation because of their fidelity to lek, nest, winter and brood-rearing sites. Even when these habitats become absent or degraded they will continue to try to use these areas and consequently become exposed to higher mortality risks. Invasion of exotic plants reduces the abundance and diversity of forbs needed for cover and food. There is an increases risk of direct mortality (running over a sage grouse) with increases motorized use and to a lesser extent bicycle use. The Proposed Action and Alternative 3 have the least potential of impacting sage grouse as described above. The No Action Alternative, followed by Alternative 2, has the greatest potential of impacting this species.

Wolverines are very wide-ranging animals that could utilize much of the habitat types available in the GTAA. Unroaded or otherwise secluded habitat areas are favored over areas with high road densities and human activity. The Proposed Action and Alternative 3 will reduce habitat fragmentation and human disturbance throughout the summer and fall seasons thus having less impact to this species.

Habitats of primary concern for sensitive bat species; the spotted bat, Townsend's big-eared bat, Allen's big-eared bat, fringed myotis and Yuma myotis are roosting sites, particularly those used for hibernacula and nurseries. Those sites include mines, caves, rock crevices, buildings and trees. None of these habitats will be significantly altered by any of the alternatives under consideration therefore these species will not be impacted by any of the proposed alternatives.

Ferruginous hawks use trees for nest sites but also readily nest on the ground. During the breeding season 44% of the recorded sightings in Colorado occur in shortgrass prairie. Colorado's ferruginous hawks prey heavily on prairie dogs, especially in winter. The conversion of prairies to cropland and the war on prairie dog towns have most likely

affected the ferruginous hawk. Off-route travel allows increased access to prairie dog habitat and ferruginous hawk nesting site habitat thus increasing the likelihood of disturbance. The Proposed Action and Alternative 3 will have the least impact on this species.

Within the GTAA, the primary breeding habitat of the loggerhead shrike are shrubby habitats (greasewood, saltbush and sagebrush) and pinyon/juniper. None of these habitats will be significantly altered by any of the alternatives under consideration; therefore, these species will not be impacted by any of the proposed alternatives.

Burrowing owls primarily nest in rodent burrows in grasslands, shrublands, and deserts. In western Colorado, they use burrows of prairie dogs, ground squirrels, and rock squirrels. Habitat loss, habitat fragmentation, pesticide poisoning of insect populations, and collisions with vehicles have contributed to their decline in North America. Off-route travel allows increased access and disturbance to their nesting habitat. Eliminating off-route travel will have the least impact on this species.

Species associated with mature to late seral spruce-fir habitats include pine marten, three-toed woodpecker, northern goshawk, golden-crowned kinglet, boreal owl, olive-sided flycatcher, pygmy shrew and dwarf shrew. Habitats for these species could be affected by human disturbance and habitat fragmentation due to off-route travel and user-created routes. Cavity nesters (birds who nest in cavities of dead or partly dead trees) include three-toed woodpecker, purple martin, flammulated owl, Lewis' woodpecker and pygmy nuthatch. Off-route travel and user-created routes could impact these species by providing increased access to snags and other deadwood harvested for firewood. The northern goshawk and ferruginous hawk are sensitive to prolonged disturbance adjacent to their nests. Disturbance from off-route travel if prolonged near nest sites could cause adults to abandon the nest and their young.

The Great Basin silverspot butterfly is only known to occur within an existing Wilderness area. None of the alternatives proposed in this EA will impact this area. Suitable nesting habitat for the black swift is associated with waterfalls. None of the alternatives in this EA will impact the black swift or its habitat.

The detailed analysis and determination of potential effects of the Proposed Action and alternatives on Forest Service sensitive species were documented in a Biological Evaluation (BE). The BE is on file at the Paonia Ranger District office.

Fish

Threatened, Endangered, and Proposed Species: Under all alternatives proposed in this EA, there are no effects to the four endangered Colorado River fish, the bonytail chub, humpback chub, Colorado pikeminnow, or razorback sucker. These species inhabit waters downstream of BLM and FS lands within the analysis area and none of the alternatives would result in a depletion of water from the upper Colorado River Basin.

Sensitive Species: Colorado River cutthroat trout inhabit relatively low gradient headwater streams with good to excellent water quality. The great reduction of cutthroat populations in southwestern Colorado is due primarily to introduction of non-native species and habitat losses. In addition, over-harvest by anglers has further reduced the populations. Off-route travel and user-created routes can impact Colorado River cutthroat through increased sedimentation into occupied stream habitats and increase human access. Access can increase fishing pressure in streams with low population numbers and may increase the chances of illegal stocking of non-native species into cutthroat waters. The Proposed Action and Alternative 3 have the least potential of impacting Colorado River cutthroat trout or their habitat.

The roundtail chub, bluehead sucker and flannelmouth sucker occur in the North Fork Gunnison, Gunnison, and Colorado Rivers. Localized increases in sediment due to off-route travel would most likely have little impact to these fish species. However, long-term and large-scale increases in sediment from proliferation of off-route travel in the higher-elevation watersheds, coupled with other impacts such as pollution run-off from highway construction and agricultural activities, may cumulatively impact these species.

HERITAGE RESOURCES

A. AFFECTED ENVIRONMENT

Over the last 25 years, field surveys for timber sales, land exchanges, and other projects have resulted in the identification and recording of heritage resource sites across the GTAA. Approximately 80 percent of the cultural sites are prehistoric Native American sites dating between 120 and 12,000 years in age. Roughly 20 percent are classified as historic sites (50 years or older in age) and have also been recorded. These heritage properties are representative of important cultural themes, such as prehistoric settlement, historic exploration, trapping, logging, mining, homesteading, livestock grazing, and transportation. A few paleontological sites with fossilized remains of extinct animals are known in the GTAA.

It is common practice to initiate and complete heritage resource surveys only when site-specific projects are planned; consequently, to date, only approximately 5 percent of the Forest and BLM lands in the GTAA have been inventoried for heritage properties. Where inventories have been completed our knowledge of the resource and its condition is good. However, because a large portion of the GTAA has not been inventoried, including much of the area where off-route vehicle travel has been allowed in the past, our overall knowledge of the extent and condition of heritage resources is poor.

Heritage resources are extremely fragile and can be adversely affected by a variety of factors, including natural erosion, livestock, and human activity. Heritage resources are particularly vulnerable to surface disturbances that can directly harm artifacts or indirectly accelerate erosion processes and permanently damage individual sites. Off-route travel results in surface disturbance through the creation of unauthorized trails; consequently, off-route travel has the potential to adversely affect and damage heritage resources. Sites that were attractive campsites for Native Americans 200 years ago are

attractive for recreationists today. Unrestricted vehicle use enables visitors to access some of these remote sites.

Forest Plan Standards and Guidelines for heritage resource management states, "Protect, find an adaptive use for, or interpret all cultural resources on National Forest System lands which are listed on the National Register of Historic Places, the National Register of Historic Landmarks, or have been determined to be eligible for the National Registers."

Gunnison Resource Area Resource Management Plan (RMP) states, "Archaeological resources would be managed according to existing legislation and BLM policy. Measures designed to protect significant resources would be required in all land use activity plans."

Both the Forest Service and the BLM Plans mandate compliance with Sections 106 and 110 of the Archaeological Resource Protection Act, as amended. In addition to defining management direction, this statement clearly describes the desired future condition for the resource.

B. ISSUES

This section provides information related to the following issues identified in Chapter I of this EA:

- *Adverse resource impacts caused by unrestricted off-route vehicular use.*

C. EFFECTS ASSOCIATED WITH THE ALTERNATIVES

Effects Common to All Alternatives:

A wide variety of heritage resources, ranging from Native American campsites to historic logging camps and mining towns dot the landscape of the GTAA. These sites provide the link between past, current, and future generations. These sites are very fragile and can be damaged by a variety of natural and human caused impacts. These resources are nonrenewable, and once they have been damaged, they cannot be restored to their original character. Protection of significant heritage resources is called for by the Forest Plan, the Gunnison and Uncompahgre Field Office RMP, and by a series of Federal cultural resource protection laws.

Damage to heritage resources sites or properties can take several forms. Artifacts can be broken as vehicles drive over them. Artifacts can also be illegally removed from these sites. The most important aspect of a heritage site is the spatial relationship between artifacts or between artifacts and site features such as buildings or fire hearths. It is the spatial relationship between artifacts and associated features which archaeologists study and which yield the most important information on past ways of life and cultures. Once intact artifact deposits are disturbed, the spatial relationships or "context" is lost forever.

We have documented damage to heritage resources by off-route vehicle and mountain bike travel on the GTAA. What we do not know is the extent of damage to heritage resources by off-route travel over the entire Forest, but we do know that off-route travel is detrimental to heritage and cultural sites.

The selection of a new travel management policy restricting off-route travel would increase the protection of heritage resources. Without extensive inventories, however, the alternatives below can only be ranked in a relative and qualitative order with regards to heritage resource protection. If ranked from most to least protective, the alternatives would be listed as follows: Alternative 3, Proposed Action, Alternative 2, and Alternative 1 (No Action).

PROPOSED ACTION: ***Restrict motorized/mechanized vehicle use to existing routes***

Under the Proposed Action, heritage resources would be provided with greater protection than currently afforded. As an example, accelerated erosion, which can expose heritage sites, would be reduced from current levels. Potential adverse effects to heritage resources on routes would be identified during inventories for landscape analyses such as timber sales, grazing allotments, site-specific travel management analyses, road construction, obliteration and maintenance, or other projects. Damage to heritage resources would continue to occur in the 300-foot zone on each side of existing routes as people use these areas for parking, camping, firewood gather, and other activities.

ALTERNATIVE 1: ***No Action - Existing travel management direction would remain unchanged***

Selection of the No Action Alternative would result in increasing levels of off-route travel and an increase in this activity over time. Damage to fragile heritage resources would continue and likely increase over time. Heritage resource properties are nonrenewable resources. Once damaged, these properties cannot be returned to their original condition. The No Action Alternative would not meet Forest Plan and BLM RMP direction for the protection of significant heritage resources in those areas where off-route travel is unrestricted.

Off-route vehicle use also has the potential to result in increased soil erosion, which can accelerate erosion of intact archaeological deposits. This is a specific concern for prehistoric sites that occur in meadows or riparian zones. These sites are particularly vulnerable to severe damage when soils are wet. As stated above, once a nonrenewable heritage property has been damaged through erosion, it cannot be restored to its original quality.

ALTERNATIVE 2: ***Allow use of off-route vehicles for big game retrieval***

Under Alternative 2, damage to heritage resources would be reduced from current levels because ATV use would be allowed off-route only during hunting seasons for game retrieval. Similar to the Proposed Action, accelerated erosion, which can expose heritage sites, would be reduced from levels anticipated under the No Action Alternative. Potential damage to heritage resources would be limited to existing routes and those areas impacted during game retrieval. Potential effects to heritage resources on the existing

travel routes would be identified during the landscape analyses mentioned above. If user-created routes were established for game retrieval, these routes would be closed. Off-route use would be allowed, but the formation of routes would not be acceptable.

ALTERNATIVE 3: ***Reduce off-route travel restriction from 300 feet to 100 feet***

Due to the reduced off-route travel restriction from 300 feet to 100 feet, Alternative 3 would offer the greatest potential for heritage resource protection and would most closely follow Forest Plan/BLM RMP direction for the resource. Accelerated erosion, which can expose heritage sites, would be reduced from current levels the most under this alternative. Potential adverse effects to heritage resources on existing routes would be identified during future route analyses.

D. IRREVERSIBLE and IRRETRIEVABLE COMMITMENT OF RESOURCES

As mentioned above, heritage resources are nonrenewable; once damaged, they cannot be restored to their original quality. Although some level of damage would still occur from wheeled travel on uninventoried existing routes, Alternative 3, followed by the Proposed Action, and Alternative 2 would reduce irreversible and irretrievable impacts to heritage resources from current levels. The reduced damage would be the result of restricted off-route travel. Selection of the No Action alternative would result in current levels of off-route travel continuing, and most likely increasing, over time. Consequently, irreversible and irretrievable impacts to heritage resources would continue and likely increase over time under the No Action alternative.

E. CUMULATIVE EFFECTS

The potential for damage to heritage resources would be reduced with the selection of the Proposed Action or Alternative 2 or 3. Selection of the No Action alternative would increase the potential for damage to heritage resources.

AIR QUALITY

A. AFFECTED ENVIRONMENT

The area of influence for the air resource is the ambient air over the Forest itself, those Class I airsheds within 20 miles, and the area northeast of the analysis area (down-wind in terms of the prevailing wind). Class I airsheds nearby include the Weminuche, La Garita, West Elk and Maroon Bells Wildernesses and Black Canyon National Park. The "down-wind" airshed would include areas up to 40 miles north and east of the actual potential source area for pollutants in a standard modeling analysis.

The air quality on the GTAA has received very little direct study. This is likely because the uses of the area have had almost no impact on the air resource. Ambient air of this area is as clean as anywhere on the continent with the single exception of the Crested Butte area. Prevailing winds are southwesterly and sweep across vast expanses of unpopulated areas. Crested Butte areas have experienced several "excedences" of air quality standards, but is not designated as a non-attainment area for the pollutant PM-10.

The excedences were caused by reintrainment of dust from sanded/dirty roads in the spring coupled with highway traffic. The community is in the process of resolving air quality problems.

Vehicle traffic up and down main access routes to public lands does produce dust (reintrained dust that would fall within the PM-10 classification of pollutants) that is visible for miles on dry summer days. This is an established use and is not the subject of the decision supported by this EA but has been considered as a cumulative effect.

B. ISSUES

This section provides information related to the following issues identified in Chapter I of this EA:

- *Impact of various travel management decisions on the air quality of the Uncompahgre National Forest and any Class I airsheds near the affected area.*

C. EFFECTS ASSOCIATED WITH THE ALTERNATIVES

None of the alternatives would have any discernible, measurable or differentiable effects on PM-10 pollution. The impacts that could occur in very limited circumstances (such as an ATV route that gets heavy use in the dry season) creates so little dust that it is not measurable above the natural background of dust 1/2 mile from the site of origin. This conclusion is based on repeated observation in the field. It is on this basis that we conclude that there will be no impact upon any of the Class I airsheds from any of the alternatives considered in this EA.

D. IRREVERSIBLE and IRRETRIEVABLE COMMITMENT OF RESOURCES

There are no unavoidable adverse, irreversible or irretrievable effects to air quality as a result of any alternative.

E. CUMULATIVE EFFECTS

The effects described above are essentially no effects. Even when considered in accumulation with the observable dust along main arterial travel routes, the impacts of OHV use are so small that they cannot even be measured as an additive factor. No decision, within the range of those considered in this analysis can be differentiated in terms of cumulative air impact.

LOCAL ECONOMIES

A. AFFECTED ENVIRONMENT

According to the Gunnison Country Chamber of Commerce, the strongest economic bases to the Gunnison area economy in descending order are tourism, education, and ranching. Tourism includes recreation on public lands, two ski areas – Crested Butte and Monarch (in Chaffee County), and private developed recreation such as golf courses.

The largest segment of jobs within the GTAA are in retail trade and services. This segment of the job market showed a 12.5% increase from 1997 to 1998. Manufacturing and wholesale trade showed a decline in this same year.

The public lands included in the GTAA are essential to the tourism industry of the area. About 85% of the lands in Gunnison County are managed by the Forest Service and BLM. The features of the Rocky Mountains, described under the Recreation section of this EA, attract large numbers of visitors every year. This is a major component of the local economy of all areas of the GTAA, and the Gunnison Basin in particular.

It is thought by many that management decisions affecting the public lands of the GTAA can alter patterns of use and thereby affect local economies.

Local Sales of Motorized and Mechanized Recreation Equipment

Local vendors of ATVs, motorcycles, and mountain bikes market to both the local and the tourism markets.

In the GTAA there are currently three ATV and motorcycle vendors, however there are several vendors adjacent to the GTAA in Montrose, Delta and Grand Junction. Hunters in particular, travel to Colorado and may purchase ATVs, and in fewer cases motorcycles, to use for hunting access. More frequently, accessories and services offered by local dealers are sought by out-of-state visitors.

There has also been a sustained local market for motorcycles and ATVs.

OHVs not licensed to be street legal must be registered in the State of Colorado. Records show that in 1999, 53,320 OHV registrations were sold statewide. This was an 18% increase from 1998. Since the registration program began in 1990, registrations have increased an average of 16% per year. These state-wide figures, although not just for the GTAA locale, show a trend in OHV use.

There are approximately nine mountain bike vendors within the GTAA. These vendors sell to the local population, college students, and visitors. Typically, over 50% of sales are to the local population. Although the mountain bike industry projects the sales market to level or flatten, retail owners in the GTAA say sales are increasing, and some say steadily increasing. All agree that the service and repair of mountain bikes is steadily increasing. The mountain bike market rental business is steady and increasing slightly, especially around Crested Butte.

Support to the Local Economy by Tourism

In addition to direct sales of ATV, motorcycle, and mountain bike equipment and service, there are indirect expenditures from this recreation industry. Visitors purchase gasoline, buy food at restaurants and grocery stores, shop, stay in hotels and resorts, and purchase general goods.

B. ISSUES

This section provides information related to the following issues identified in Chapter I of this EA:

- *Effects of proposed restrictions on local economy*

C. EFFECTS ASSOCIATED WITH THE ALTERNATIVES

The fundamental question to be considered is whether the proposed restriction of motorized and mechanized use to existing routes is going to affect the numbers of people 1) coming to use the area for summer recreation and in hunting season, and 2) who live in the area that will purchase and outfit motorized/mechanized equipment.

Three points of view have been expressed.

- One is that the proposed restriction will limit the appeal of the area, resulting in fewer visitors, and hence lower revenues to suppliers of vehicles, services, and goods.

- Another is that the same numbers of people will come, the same numbers of people will ride existing routes, and hence the same levels of contribution to local economies can be expected.

- It has also been argued that the improved management of the use of these lands would make them even more attractive to tourism in all seasons, and consequently result in increased contributions to the local economies.

No existing models (such as input-output economic models) are of assistance in arriving at conclusions, as they all rely on these very conclusions as input.

No conclusive research has come to our attention that addresses these questions.

Hence, the agencies acknowledge that any of the several possible effects represented above are possible. These would be the effect of implementing the proposed action or any alternative other than the No Action Alternative. No distinction can be made between Alternatives 1 – 3 in terms of effects on local economies.

The most negative effect of the proposal on local economies could be the reduction of tourism. We think that is highly unlikely, but acknowledge that there is the possibility of some loss of local income. We do not believe this would cause a loss of jobs in the area, however, that is to a small degree, possible. Rather we expect that the level of wheeled-vehicle recreation use will continue, and that it will take place on existing routes.

D. IRRETRIEVABLE and IRREVERSIBLE COMMITMENT OF RESOURCES

This concept applies only to resources so is not applicable here.

E. CUMULATIVE EFFECTS

Vehicle registration information indicates that OHV ownership has increased during the past decade. This trend is expected to continue given the expected population growth in Colorado and the Gunnison/Paonia area. If motorized and mechanized travel is not restricted to existing roads and trails the impacts of off-route, cross-country travel would continue to increase.

Some have argued that the cumulative effect of this proposal with other changes in the production of goods from National Forests and BLM lands` (i.e., reduction of timber harvest, grazing and mining) is hurting small communities that depend on public land, in part, to support their economies. As above, we acknowledge that there could be some small loss of sales of equipment and supplies for wheeled-recreation vehicles, but we do not think there will be.

As more and more natural areas are altered by development, urban sprawl and the impacts of overuse, recreationists will increasingly value areas still in a natural condition. Places like the Gunnison Basin and the Paonia area with a high percentage of public lands will continue to attract visitors if the beauty and integrity of these natural areas is maintained. To allow the slow but steady degradation of the resource by inappropriate vehicle use may draw a few economic benefits for the short term but over the long term would diminish the beauty and integrity of the area. This could have the long-term effect of reducing the economic benefits that come from tourism.

We do believe that over the longer term, management of public lands which supports healthy ecosystems and watershed systems, and which protects the overall appearance of these lands will support sustained production of goods, services, and opportunities important to diverse, healthy local economies.

TRANSPORTATION

Forest Service Inventory Information

In the mid-1980s, the Gunnison Ranger District undertook an intensive transportation inventory effort. At that time, several hundred miles of non-system (non-classified) roads (see Glossary) were mapped and added to the road database. Inventories were kept up to date to the extent possible. However, in 1997, the inventory effort received renewed emphasis. A combination of Global Positioning Systems (GPS) data and ground-truthing was undertaken, and new routes were delineated on the District Inventory maps. During 1998-1999 the Forest inventoried all passenger-car routes and described in detail the condition of the road and what maintenance work would be required to bring the road up to Forest Service standards. This year the Forest is inventorying a random sample of all high-clearance roads, approximately 25 percent of the remaining transportation system.

Until recently, transportation inventories on the Paonia Ranger District have been focused on system (classified) roads and trails. In 1995, a District-wide review of both classified

and non-classified roads and trails was initiated. Routes were added to the District inventory maps using GPS or digitizing. The majority of the additional routes were non-classified routes. Several changes to status of classified and non-classified were made at the time because of a change in the type of use on the route. For example, a route previously classified as a four-wheel-drive road was changed to a trail because the standard of that route had changed.

The objective on the Gunnison National Forest is to complete the inventory of all routes and delineate them on the District map draft inventories. This information will be used during site-specific travel management area analyses to make decisions about whether or not to close, open, or obliterate roads, and to help decide the mode of travel allowed on routes. This EA only addresses whether or not to restrict off-route travel.

BLM Inventory Information

The BLM-Gunnison Field Office began to update their inventory of roads and trails in 1998. BLM employees drove or hiked every route that could be found on public lands in the Gunnison Area. This included roads currently recognized in the BLM inventory, including routes created by the public, closed roads, and abandoned routes. Basic information such as condition, length, and ownership was collected for each route. This information was entered in the Geographic Information Systems (GIS). The BLM inventory for this area is considered to be current and very accurate. Fieldwork will continue in 2000 to capture additional routes.

BLM-Uncompahgre Field Office lands in the Paonia area have not had a recent transportation inventory completed. Existing roads and trails in this area were inventoried using data from the USFS 1:100,000 scale 30- by 60-minute quadrangle maps. Delta County roads were inventoried in 1998 using GPS technology. Road and trail inventory in this area was minimally field checked and may not include all existing roads and trails.

Map of Inventoried Routes

Routes inventoried as discussed above are portrayed on the ½-inch to the mile scale map attached to this EA. This represents the agencies' best knowledge of existing routes as of the date on that map.

A. AFFECTED ENVIRONMENT

Existing Travel Opportunities

Public lands within the GTAA provide a variety of travel opportunities. Designated Wilderness, including WSAs, accounts for 24% of the GTAA. Access in these areas is by foot and horse only.

Outside of designated Wilderness, large portions of the GTAA are roaded. This is due in large part to the terrain, which lends itself to easy access, and to the mining, ranching, and logging history. Access opportunities include motorized and non-motorized trails,

primitive four-wheel-drive roads, two-track roads, improved dirt and gravel roads, and paved highways.

Existing motorized travel opportunities include both improved and unimproved roads and trails. Improved roads include everything from historic logging roads to major graveled roads, which are maintained by the agencies and cooperators. Unimproved roads are typically primitive or two-track roads often created by hunters and other GTAA users.

Existing Travel Restrictions

Currently, off-route motorized travel is allowed on roughly 71% percent of the GTAA. The remaining 29% percent currently has some form of travel restrictions in place.

The Forest and BLM began implementing travel restrictions in the form of travel-restricted areas roughly 20 years ago. Some restrictions were implemented as "white arrow" areas, which restricted motorized traffic to routes signed with white arrows, while others were closed completely to motorized traffic, either seasonally or year-round. The restrictions were put in place for a variety of reasons. Some restrictions were meant to protect natural resources such as high elevation ecosystems that are slow to recover from damage. Others were established to provide more effective summer or winter habitat for wildlife, to protect wildlife calving areas and winter range, or to protect open meadows near high use recreation areas. Still others were needed to minimize conflicts with other users or to provide areas for non-motorized activities, such as hiking, mountain biking, and horseback riding. Current travel-restricted areas in the GTAA are displayed on the **Existing Situation map**. The Gunnison Basin Area Visitor map depicts travel-restricted areas as yellow, and the legend defines five different categories of restricted travel. Specific travel restrictions are supplemented with a Travel Availability Guide and signed closures. Both can be obtained at most local FS/BLM offices.

Despite these restrictions, problems and conflicts associated with off-route vehicle use have grown over the last decade. Conflicts have arisen, in part, from a mixture of motorized and non-motorized uses on the same trails. User-created routes have been developed, and in some areas trees are being cut illegally to facilitate route development. User-created routes are often developed in inappropriate locations. Erosion results from existing trails being shortcut or user-created routes being developed on steep hills. Resource damage is especially prevalent in riparian areas and near streams as accessibility to these areas increases. Furthermore, as users access areas that were once remote, the potential to impact wildlife and reduce solitude for non-motorized GTAA users increases. These conflicts and impacts led to the proposal to restrict off-route vehicle use across the entire GTAA.

B. ISSUES

This section provides information related to the following issues identified in Chapter I of this EA:

- *Adverse resource impacts caused by unrestricted off-route vehicular use;*

- *Conflicts between motorized and non-motorized Forest users;*
- *Inconsistent restrictions and lack of consistent signing and enforcement;*
- *Inconsistent with agency management plan direction*

C. *EFFECTS ASSOCIATED WITH THE ALTERNATIVES*

Features common to all alternatives:

The GTAA has an extensive road and trail system with good access provided by major roads and secondary roads. Any decisions made as a result of this analysis would apply only to off-route travel. No roads or trails would be closed as a result of this decision. Consequently, road densities would not be affected. Existing seasonal and yearlong restrictions, and permanent road and trail closures, would remain in effect. Site-specific decisions about road and trail management would continue to be made as part of future agency analyses with interdisciplinary review and public input, or through an administrative order.

PROPOSED ACTION: ***Restrict motorized/mechanized vehicle use to existing routes***

Under the Proposed Action, existing legal uses on established roads and trails would continue while off-route, cross-country motorized and mechanized vehicle use would be prohibited. The creation of user-created routes would be reduced and eventually eliminated through education and enforcement of the new travel restrictions. Restricting travel to existing routes would allow the agencies to concentrate inventory work, mapping, signing, enforcement, and maintenance manpower and budget resources on a known set of travelways. Limited budgets could be used to identify and correct existing stream degradation and riparian damage instead of repairing newly created problem areas.

Providing safe, yet challenging routes for a variety of OHV riders is an important part of managing travel on the GTAA. Restricting motorized and mechanized vehicle use to existing roads and trails would eliminate the off-road/trail recreational experience and reduce access options. It could also increase safety concerns by consolidating multiple motorized uses (i.e., ATVs and full-sized vehicles) on the same routes.

ALTERNATIVE 1: ***No Action – Existing travel management direction would remain unchanged***

Current impacts and conflicts, including conflicts between non-motorized and motorized users, would increase as population centers around the GTAA increase. Motorized access would continue to expand as the network of user-created roads expands. The potential for resource damage, safety, maintenance, inventory, signing, and law enforcement-related concerns would also increase proportionately as unrestricted motorized use increases and additional unplanned roads and trails are created through repeated use.

In addition, if this alternative is implemented within all or portions of the GTAA, travel management would be inconsistent with travel restrictions on neighboring Ranger Districts, other Region 2 Forests, and adjacent BLM Offices which already have, or are in the process of implementing, off-route travel restrictions. The Rangeland Renewable Resources Planning Act of 1974, as amended, requires the publication of forest management Standards and Guidelines at the Regional level and adoption of those Standards and Guidelines at the Forest level. This helps ensure a consistent approach to land use planning across the Rocky Mountain Region. The Rocky Mountain Regional Guide published in 1992 meets this requirement and provides guidance on a variety of forest planning and management issues. Of particular interest to this analysis are the Regional guidelines for travel management policies. These guidelines, although general in nature, are intended to eliminate visitor confusion about the intent, implementation, and enforcement of travel management across various Forest and District boundaries within Region 2.

Under the No Action alternative the Gunnison National Forest would be the one of the few Forests in Region 2 to allow wheeled-vehicle travel off of established or designated routes on the majority of the Forest. This could lead to confusion by the visiting public and, perhaps more significantly, could concentrate OHV usage from other Forests that have restrictions onto the GTAA. This would lead to increased user conflicts, resource damage, and increased costs associated with a continually growing, uncontrolled network of roads and trails.

It would be expected that user-created routes would continue to be created across the GTAA under this alternative.

ALTERNATIVE 2: ***Allow use of off-route vehicles for big game retrieval***

Effects of implementing Alternative 2 would be the same as those listed under the Proposed Action, with the following additions. Allowing off-route travel for game retrieval would result in the continued creation of unplanned roads and trails and the continued potential for resource damage, user conflicts, and increased maintenance and signing needs. Enforcement would be difficult and would require additional resources. This alternative may also be perceived as allowing a unique set of the recreating public special rights.

Finally, allowing the use of OHVs for game retrieval would conflict with Regional travel management policies and with how other Districts and Forests are implementing their policies. This would lead to confusion by the visiting public and, perhaps more significantly, would concentrate OHV usage from other Forests that do not allow motorized vehicle use for game retrieval onto the GTAA.

ALTERNATIVE 3: ***Reduce off-route travel restriction from 300 feet to 100 feet***

Effects of implementing this alternative would be similar to Alternative 1. Alternative 3 would prove more restrictive in non-forested areas, where off-route use is currently occurring, since off-route use in heavily forested areas is already naturally restricted.

Reducing the distance from 300 to 100 feet would result in less user-created routes from various off-route activities allowed in that corridor.

D. IRREVERSIBLE and IRRETRIEVABLE COMMITMENT OF RESOURCES

There would be no irreversible and irretrievable impacts to the transportation resource under any of the proposed alternatives.

E. CUMULATIVE EFFECTS

There are numerous management activities occurring in and adjacent to the GTAA that include the development of roads and trails. These activities include water diversions and reservoirs, spring developments and pipelines, right-of-ways and easements; coal exploration drilling activities, oil and gas drilling operations, timber harvest, fence construction and pond development, and outfitter and guide operations. These activities are managed and allow land managers to plan the location of the routes, and mitigate resource issues and potential conflicts. In addition to these managed routes, many user-created routes are being created across the GTAA. These routes are unmanaged and unplanned. In addition to road and trail managers managing a system of routes, they are faced with identifying, locating, and mapping these user-created routes. These routes, because they are not included on the transportation system, do not receive any road or trail maintenance, which leads to resource concerns. The managed activities, coupled with unmanaged user-created routes are cumulatively impacting the transportation resource across the GTAA.

Cumulative effects that are most detrimental to the transportation resource are greatest under the existing management conditions (No Action alternative).

No new roads would be constructed, obliterated, opened, or closed as a result of this analysis, nor would existing trails be closed. However, the environmental effects of user-created roads and trails would have an inherent set of potential environmental consequences. These include resource damage to adjacent streams and wet meadow areas, potential safety issues, increased inventory, signing, maintenance, and law enforcement requirements.

LIFESTYLES AND TRADITIONAL PATTERNS OF USE

A. AFFECTED ENVIRONMENT

Travel management on the GTAA has been, and continues to be, a contentious issue. Debate over travel management is certainly not new, and the Gunnison National Forest and associated BLM offices are not the only entities dealing with this issue. Some people have described travel management as one of the most difficult public lands issues to address. This conflict exists for the same reason that many public lands issues are controversial -- the way people feel about the issue is often tied to their core values and beliefs. Because core values and beliefs are so strongly held, people can become polarized when they encounter others with different points of view.

In general, recreation experiences are very personal and individual. One person's recreation experience can be another person's annoyance. Travel plays an important role in a person's recreation experiences. In a broad sense, recreation travel issues can be pared down to philosophical differences among various recreationists wishing to use the same area. This philosophical difference exists even between users of the same activity. For example, some hunters will argue that motorized vehicles disturb and intrude on their hunting experience; others will attest that the ease of access improves the hunt. The fact that they each value the experience differently introduces social conflict.

Some people recreate on the GTAA using a mode of motorized travel while others recreate using non-motorized modes of travel. There are also those who engage in both motorized and non-motorized forms of recreation and some who use ATVs only during the fall hunting seasons. There are strong feelings regarding the appropriateness of varying types of travel on public land.

The social issues surrounding travel management in general include a desire for personal freedom with few restrictions, a desire to keep things the way they are, a concern about "what's next," "prescribed rights" (the idea that people tend to associate, as a right, opportunities they have experienced in the past), a desire to not hear or see motorized vehicles in the backcountry, concern that increased restrictions might further concentrate use and increase visitor conflicts, and even perceptions people have about other people who recreate differently, hold different values, and who think differently than they do. This issue is one that is complex, strikes at people's core values and possibly their livelihood, and for which there is no single correct solution, only more or less useful courses of action.

While all sides of the social equation need to be considered, no decision can optimize the desires of all interested parties.

B. ISSUES

This section provides information related to the following issues identified in Chapter I of this EA:

- *Conflicts between motorized and non-motorized GTAA users*
- *Limitations on personal freedom*

C. EFFECTS ASSOCIATED WITH THE ALTERNATIVES

PROPOSED ACTION: *Restrict motorized/mechanized vehicle use to existing routes*

This alternative is most responsive to the desires of individuals and groups who feel vehicle use on public lands should be limited to roads and trails with very limited exceptions.

Wheeled-vehicle users would lose the ability to travel off-route more than 300 feet to collect firewood, picnic, or camp with vehicles. Some may interpret the loss of these

recreation opportunities as a loss of personal freedom. There would be a perceived loss of freedom by those who wish to travel unrestricted. During the short a time they have been in use, ATVs have already established themselves as important parts of some visitors (especially hunters) experience on these public lands. Hunters would need to keep their OHVs on roads and trails when retrieving game.

In the Proposed Action and Alternatives 2 and 3, the primary social effect to visitors who use motorized or mechanized wheeled vehicles to travel is the loss, in some form, of the above opportunities. Conversely, non-motorized visitors who wish not to see or hear motorized vehicles would be able to have that experience to a greater degree.

Non-motorized recreation users would benefit from a reduction in conflicts with motorized users, which could enhance their recreation experience and social well-being. GTAA visitors who wish not to see or hear motorized vehicles would have more opportunities for that experience than currently exist.

Motorized and mechanized vehicle users who choose to pioneer new routes and connect or link existing trails where no trail exists would no longer be able to do so.

ALTERNATIVE 1: ***No Action - Existing travel management direction would remain unchanged***

If the No Action Alternative were selected, there would be no immediate change to the current social environment relating to travel on the GTAA. This alternative is most responsive to the desires of individuals and groups who feel public lands should remain open to wheeled-vehicle access at the current levels. This alternative best addresses their concerns and would enhance their social well-being.

GTAA visitors who enjoy off-route wheeled-vehicle travel would continue to experience current opportunities, including off-route access for recreation, firewood gathering, and other activities. Non-motorized recreationists not wishing to see or hear motorized vehicles would continue to have their recreation experience negatively impacted, and visitor conflicts between motorized and non-motorized recreationists would likely continue.

Increasing number of people in the West and across the country believe that cross-country vehicle management should place more emphasis on protecting natural resources. This alternative is not consistent with these attitudes.

ALTERNATIVE 2: ***Allow use of off-route vehicles for big game retrieval***

The effects of this alternative would be similar to the No Action alternative. Hunters would be allowed to use ATVs off existing roads and trails in areas currently open to off-route travel to retrieve downed big game but only during certain hours. Under this alternative, hunters using ATVs would continue to enjoy current opportunities to retrieve game off-route, subject to the conditions listed in the alternative description in Chapter II.

Conflicts between non-motorized and motorized hunters would continue which could diminish the social well-being of affected hunters. There is some concern that the exceptions allowed for game retrieval would be difficult to enforce and some people would continue to drive ATVs anywhere they wanted.

Non-motorized hunters who wish to not be within the sight or sound of motorized use would be negatively impacted when encountering hunters with ATVs or other motorized vehicles.

ALTERNATIVE 3: ***Reduce off-route travel restriction from 300 feet to 100 feet***

This alternative is most responsive to the desires of individuals and groups who feel wheeled-vehicle use on public lands should be limited to existing or designated roads and trails with very few exceptions. Non-motorized recreation users would benefit from a minor reduction in conflicts (going from 300 feet to 100 feet) with motorized cross-country users, which could enhance their recreation experiences and social well-being. People who engage in off-route, wheeled vehicle activities (i.e., retrieving downed game, camping, pleasure riding) would lose that opportunity on public lands, except for a 100-foot limit off road and trail, which could diminish their social well-being. However, they would still be able to use their vehicles on roads and trails.

Restricting off-route travel to 100 feet on either side of existing routes, off-route wheeled-vehicle users would be more affected by Alternative 3 than the other alternatives.

D. IRREVERSIBLE and IRRETRIEVABLE COMMITMENT of RESOURCES

This concept applies to resources so is not applicable here.

E. CUMULATIVE EFFECTS

The expected increase in population and related increase in recreation activities on the GTAA, would, in general, lead to more conflicts among recreationists. The loss of opportunities for non-motorized/mechanized users due to increases in conflict that occur on trails that are open to motorized and mechanized travel would be at least partially offset by the enhanced opportunities for non-motorized recreation available in Alternatives 2 and 3 and the Proposed Action.

Some users have expressed concerns regarding control and management of public lands. Since travel is already restricted in about 45% of the GTAA (including Wilderness) choosing an alternative that further restricts travel could add to these concerns. Specifically, these users may feel that public land managers are not listening and/or responding to their wishes to keep public lands open to off-route cross-country travel. All alternatives except the No Action Alternative would add to these feelings.

LAW ENFORCEMENT

A. *AFFECTED ENVIRONMENT*

The GTAA covers a large geographic area, which equates to a large area of enforcement responsibility for Forest Service and BLM personnel. Law enforcement officers (LEOs), Forest Protection Officers (FPOs), and BLM Rangers enforce petty misdemeanors to felony offenses on public lands within the GTAA. Relating to this proposal, law enforcement personnel would enforce the restrictions pertaining to travel management violations, and specifically, requirements on the Gunnison Basin Area Visitor Map and associated Travel Availability Guide (TAG), and the pertinent Code of Federal Regulations (CFR) associated with travel and resource concerns.

B. *ISSUES*

This section provides information related to the following issues identified in Chapter I of this EA:

- *Conflicts between motorized and non-motorized GTAA users*
- *Inconsistent regulation, lack of consistent signing and law enforcement*

C. *EFFECTS ASSOCIATED WITH THE ALTERNATIVES*

Features common to the Proposed Action and Alternatives 2 and 3.

1) Education and ethics programs regarding travel on the GTAA would be maintained.

Implementation of restricted type of travel management programs would improve law enforcement efforts. These types of programs generally result in cooperation from the public. Additionally, they increase the public's willingness to report violators to Agency personnel.

Implementation of an action alternative would involve the publication of a brochure explaining, through pictures and text, what constitutes an established route. A brochure could also provide travel management ethics, and information on what modes of travel are appropriate on routes (i.e., only single-track vehicles can operate on single-track trails). The photographs and language in the brochure would serve as information and education for users, and enforcement personnel would be better able to exercise enforcement and take appropriate actions when necessary.

2) Agency law enforcement efforts would continue.

Success would be dependent on the agency personnel within the GTAA to do a complete job of law enforcement. A complete job in law enforcement is a three-pronged effort which includes all Forest/BLM employees, as well as

enforcement personnel. To be successful on the ground, the three elements that must work together include:

1) Provide the public with consistent and up-to-date education and travel management information;
2) Prevention through complete and on-the-ground engineering (i.e., proper closures, proper signing, and on-going maintenance of closures, signs, etc.); and
3) Fair, consistent, and progressive enforcement by agency law enforcement, with support from GTAA personnel. Key enforcement actions would include incident reports, warning notices, and violation notices.

3) *Users would be involved with regulation enforcement through peer pressure and information gathering. Clubs, manufacturers, individuals, and retailers would be asked to help.*

Successful implementation of this element would be in direct proportion to the effort put forth through public education by the Forest Service, BLM, mountain bike, OHV, and related organizations. Over the past 3 to 4 years, the public has reported a greater number of violations. In part, this can be attributed to acceptance of the Tread Lightly and Leave No Trace Programs taught by the agencies and the public. It is reasonable to assume that peer pressure would continue with educational programs and citizen assistance to law enforcement.

Features common to all alternatives, including the No Action Alternative:

1) *All Federal and Colorado State laws that apply to motorized vehicle use must be followed.*

Title 36 CFR, Parts 261.12, 261.13, 261.16(a), 261.54, 261.55 and 261.56 all apply to the operation of motorized vehicles on and off of Forest Development Roads and Trails. Only Colorado state laws covered by Forest Supervisor Orders apply under 36 CFR 261.54 and 36 CFR 261.55 and may be enforced on Forest Development Roads and Trails. Some Title 42 state traffic laws may also be applicable. BLM will continue to enforce Title 43 CFR 9268.3 and other applicable regulations.

Both agencies will continue to work cooperatively with local and state law enforcement, including the Division of Wildlife (DOW).

For the most part, the Colorado Sheriff's Department or the Colorado State Patrol will not enforce state restrictions on Forest or BLM roads and trails.

Specific effects associated with the alternatives:

PROPOSED ACTION: ***Restrict motorized/mechanized vehicle use to existing routes***

The effects of implementing the Proposed Action would benefit law enforcement in three areas:

1) It would help to eliminate existing confusion and ambiguity over a large portion of the GTAA where different travel management restrictions are currently applied;
2) It would allow consistent and uniform enforcement of restrictions across the GTAA and between two agencies; and
3) It would provide clear regulation, so visitors would know when they are violating a regulation.

A major gray area subject to interpretation under this alternative would be what constitutes resource damage within the 300-foot corridor. This determination would be left to the discretion of law enforcement personnel. If new routes were created, they would be closed.

ALTERNATIVE 1: ***No Action - Existing travel management direction would remain unchanged***

Existing travel management on the GTAA would remain unchanged. Law enforcement would remain the same.

Currently, restrictions in place do not regulate travel off roads and trails in open travel areas. On the Forest, restrictions of travel on and off roads and trails may be implemented through a Forest Supervisors Order using 36 CFR 261.54, 261.55, 261.56 and 261.13. Regulations of off-route travel on BLM-managed lands are found in 43 CFR 8340, or in RMPs.

The confusion related to travel management areas, and restrictions on those areas, would continue if the existing situation (No Action alternative) does not change.

ALTERNATIVE 2: ***Allow use of off-route vehicles for big game retrieval***

Implementation of this alternative would create difficulties for law enforcement. Some of these difficulties include:

- *How, and who, would determine when resource damage occurs;*
- *At current funding levels, there are not enough Forest Protection or Law Enforcement Officers or BLM rangers to monitor and enforce the time limitations associated with Alternative 2;*
- *It puts the burden of proof on the agency to determine if off-route ATV use is for game retrieval or some other reason.*

On the other hand, not allowing use of ATVs for game retrieval could present enforcement challenges also. There is strong motive for people to disregard this aspect of the proposed restrictions. A downed elk weighing 800 pounds may take as many as eight three-hour trips to pack out by hand, when one 30-minute trip on an ATV would accomplish the same thing. The experience is altogether different. The amount of work, and even many hunters' inability to perform such work, will be a strong invitation to commit these types of violations. Hunters need to be made aware that these violations may result in a mandatory court appearance, which carries up to a $5000 fine and/or 6 months imprisonment.

ALTERNATIVE 3: ***Reduce off-route travel restriction from 300 feet to 100 feet***

This alternative has nearly the same effects as the Proposed Action.

The gray area subject to interpretation under Alternative 3 would be what constitutes resource damage within the 100-foot corridor. This determination would be left to the discretion of law enforcement personnel. If new routes were created, they would be closed.

Implementation of Alternative 3, similar to the Proposed Action, would greatly simplify the interpretation of what constitutes a violation of travel management restrictions.

GTAA visitors need to know whether they can drive 100 or 300 feet off an existing route. Currently, the BLM does not allow any distance off-route by motorized vehicles in restricted travel areas. It would be consistent, and much clearer to GTAA visitors if the BLM and Forest agreed to the same distance limits in their respective decisions and regulations. If not, there would be continued inconsistency within the GTAA.

Surrounding Forests, and the Gunnison National Forest allow motorized travel 300-foot off existing routes for camping, picnicking, and forest product gathering. Implementing this alternative would be inconsistent with other Forests.

D. IRREVERSIBLE and IRRETRIEVABLE COMMITMENT OF RESOURCES

There would be no irreversible and irretrievable commitment of resources to law enforcement under any of the proposed alternatives.

E. CUMULATIVE EFFECTS

Under all alternatives, increased public education efforts and more consistent enforcement of travel management restrictions would reduce confusion of GTAA users. The greatest improvements would be seen under the Proposed Action and Alternative 3 since nearly consistent travel management restrictions would apply across the entire GTAA. Although improved conditions would still be realized under the remaining alternatives, the effects would not be as great since travel restrictions would be different in different areas of the GTAA. Consequently, there would still be some degree of confusion.

MONITORING REQUIREMENTS

Any alternative that is selected would be monitored to ensure that the Purpose and Need for this Proposal described in Chapter 1 is being met. Table 2 displays the conditions that would be monitored under each alternative.

Table 2. Items to be Monitored During the Next 3 Years.

Monitoring Item	When	Who[1]
Creation of new, user-created roads and trails	During future site-specific travel management analyses and during field operations	Field-going and law enforcement personnel
Trends in violation notices and reported incidents	Year-round	Law enforcement personnel
Effects on game and non-game wildlife species	During future site-specific travel management analyses	Wildlife biologists
User conflicts	Year-round	Frontliners and field-going personnel
Resource damage	Year-round	Field-going and law enforcement personnel
Conflicts with private landowners	Year-round	Frontliners and field-going personnel

NOTE: Future site-specific travel management analyses will be conducted to determine if certain routes need to be closed as a result of impacts associated with motorized vehicle use and to determine whether or not sufficient motorized opportunities are being provided across the GTAA. Decisions to open or close individual routes, or to develop additional motorized opportunities, would only be made after further public discussion and disclosure.

COMPARISON OF ALTERNATIVES

Table 3 displays how the issues listed on page 13 through 16 of this EA would be affected by implementation of the various alternatives.

Proposed Action: Restrict motorized/mechanized vehicle use to existing routes
Alternative 1: No Action -- Existing travel management direction would remain unchanged
Alternative 2: Allow use of off-route vehicles for big game retrieval
Alternative 3: Reduce off-route travel restriction from 300 feet to 100 feet

[1] All incidents would be reported to the BLM Field Office or Forest Travel Management Coordinator so that a centralized record could be maintained.

Table 3. Effects to the Issues by Alternative[2]

Issue	Proposed Action	Alt. 1	Alt. 2	Alt. 3
Wildlife habitat effectiveness	Improved	Reduced	Improved, except during the big game hunting season	Improved
Conflicts with private landowners	Reduced	Maintained or Increased	Reduced, except during the big game hunting season	Reduced
Adverse resource impacts caused by unrestricted vehicle travel	Reduced	Maintained or Increased	Reduced, except during the big game hunting season	Reduced
Reduced conflicts between motorized and non-motorized Forest users	Yes	No	Yes, except during the big game hunting season	Yes
Consistent signing and enforcement	Yes	No	Yes	Yes
Conflicts with the Forest Plan and the Regional Guide	No	Yes	During the big game hunting season	No
Limiting personal freedom	Yes	No	Yes	Yes
Allow off-route vehicle use for big game retrieval	No	Yes	Yes	No
Reduce 300-foot off-route travel allowance to 100 feet for such activities as firewood gathering, dispersed camping, etc.	No	No	No	Yes

[2] More detailed information regarding the effects to issues can be found in Chapter III, Environmental Consequences.

CHAPTER IV

AGENCIES AND PERSONS CONSULTED

LIST OF PREPARERS

In accordance with 40 CFR 1501.2(a), the Forest Supervisor selected a team of resource specialists to utilize a systematic, interdisciplinary approach in planning and decision making which may have an impact on the human environment. The following people contributed to the preparation of this EA either as full ID Team members or as reviewers of the work reported here.

Jim Dawson – Gunnison District Ranger
Sandy Thompson – Gunnison Recreation Specialist
Jeff Burch – Environmental Coordinator
Andrea Wang – Wildlife Biologist
Pam Wilson – Public Affairs Specialist
Bill Bottomly – BLM Coordinator for Gunnison and Uncompahgre Field Managers
Dennis Murphy – BLM Hydrologist
Arden Anderson – Recreation Planner, Gunnison Field Office
Carl Bauer – Recreation Planner, Uncompahgre Field Office

CONSULTATION AND COORDINATION

The ID Team consulted with various other federal, state, and local agencies, as well as private businesses, organizations, and individuals during the analysis process for this proposed action). The list below displays those specific agencies, organizations, individuals, Native American contacts, businesses, and media contacts that expressed an interest in this type of project.

Federal Agencies

Congressman Scott McInnis
Senator Wayne Allard
Senator Ben Nighthorse Campbell
Environmental Protection Agency, Region VII
Bureau of Land Management (Montrose, Grand Junction, Gunnison, Denver)
Natl. Park Service-Black Canyon of the Gunnison
Natl. Park Service-Curecanti Natl. Rec. Area
Natural Resources Conservation Service
US Army Corps of Engineers
US Dept. of Housing & Urban Development
US Forest Service, San Juan National Forest
US Forest Service, White River National Forest
US Forest Service, Rocky Mtn. Regional Office
US Fish & Wildlife Service, Western CO Office

State/Local/Tribal Agencies

City of Gunnison
Colorado Department of Parks and Recreation
Colorado Division Of Wildlife
Colorado State Forest Service
Crested Butte Chamber of Commerce
Delta County Commissioners
Delta County Health Department
Gunnison County Attorney
Gunnison County Chamber of Commerce
Gunnison County Commissioners
Gunnison County Manager
Gunnison County Planning Department
Gunnison County Road Department
Hinsdale County Planning Commission
Hinsdale County Commissioners
Hinsdale County Road Department
Lake City Chamber of Commerce
Lake City County Commissioners
Montrose Chamber of Commerce
Montrose County Commissioners
Northern Ute Tribe
Ouray County Commissioners
Paonia Chamber of Commerce
Saguache County Commissioners
Saguache County Road & Bridge
San Miguel County Commissioners
Southern Ute Tribe
Town of Crawford
Town of Crested Butte
Town of Mt Crested Butte
Town of Paonia
Town of Saguache
Ute Mountain Ute Tribe

Media

Crested Butte Chronicle & Pilot
Daily Sentinel
Delta County Independent
Fruita Times
Gunnison Country Times
High Country News
Montrose Daily Press
Mountain Valley News
Ouray County Plaindealer
Palisade Tribune
Plateau Valley News
Silver World

Organizations/Businesses

J Brink Outfitters
Action Adventures
Action Adventures
Adams Ranch
Adaptive Sports Center
Adventure Experiences Inc.
Adventure Unlimited
Adventures Rolling Cross-Country

Adventures to the Edge
Agape Outfitters
Allen and Sons, Inc
Alpine Express
Alpine Meadows
Alpine Outfitters Ii, Inc
AMA-Colorado OHV Coalition
American Lands Access Association, Inc.
American Lands Alliance
American Motorcyclist Association
America's Adventure Inc.
Amoco Production Company
Arrowhead Improvements Association
Aspen Alpine Guides Inc.
B&B Partnership
Backcountry Skiers Alliance
Bar Diamond Outfitters
Bar X Bar Ranch Ltd.
Bar ZX Ranch & Lodge
Barrett Park Outfitters
Bicycle Colorado Mar
Bio-Environs
Black Canyon Audubon Society
Black Mesa Lodge
Blue Mesa Four Wheelers
Brandt Logging Inc
Buckhorn Contractors
Buena Vista Snow Drifters
Buena Vista Snowmobile Club
Burns dba Wrights Brangus
Burt Rentals Snowmobile Tours
C Bar T Trail Ranch
Cadwell Outfitters
Camp Gunnison
Camp Redcloud
Cannibal Outdoors
Capitol Peak Outfitters
Castle Lakes Resort
Cedar Mesa Ditch & Reservoir Co.
Chaco Sandals
Chu Chu Pate
Club 20
Coal Creek Outfitting
Coleman Ranches, Inc
Collegiate Peaks Outfitters
Colorado 500
Colorado 500
Colorado Assoc of 4WD Clubs Inc.
Colorado Environmental Coalition
Colorado History Museum
Colorado Holistic Resource Management
Colorado Mountain Club
Colorado Mountain West Magazine
Colorado Natural Areas Program
Colorado Off-Highway Vehicle Coalition
Colorado Outfitters Assn, Gunnison Chapter
Colorado Outward Bound
Colorado Recreation Initiative
Colorado Snowmobile Association
Colorado Sportsman Wildlife Fund
Colorado Timber Industry Association
Colorado Wild
Colorado Wildlife Federation
Columbine Hiking
Continental Divide Snowmobile Club
Continental Trail Divide Alliance
Cosmic Cruisers
Cottonwood Country Enterprises
Coyote Color Photo
Crested Butte Academy
Crested Butte Mountain Guides
Crested Butte Mountain Resort
Crested Butte Mountain Runners
Crested Butte Nordic Council
Crested Butte Wildflower Festival
Crystals Meadows Ranch
CSU Cooperative Extension
CU Wilderness Study Group
Cutthroat Adventures
D&T Simms Timber Products
Dan's Fly Shop
Del Flynn & Sons
Delta County Livestock Association
Delta County Tourism Cabinet
Delta-Montrose Electric Association
Dilley's Guide Service
Dotty's Towing Service
Doug Jones Sawmill
Duncan 4x4 and Auto Repair
Dvorak's Expeditions
Eagle Mountain Outfitters LLC
East River Free Trappers Club
Educational Advances
Electric Mountain Lodge
Elk Mountain Grand Traverse
Fantasy Ranch Outfitters
Figure 3 Ranch & Sawmill
Figure 4 Salers
Fire Mountain Outfitters
Forest Conservation Council
Forest Conservation Council –
Ecology & Law Institute
Fox Creek Guide & Outfitters
Fun Time Jeep Tours
Gersh & Danielson
Goodrich Contract Logging
Gunnison Basin Biodiversity Project
Gunnison Basin Weed District
Gunnison County Stockgrowers Association
Gunnison County Trails Commission
Gunnison Gorge Anglers #426
Gunnison Horse Endurance

Gunnison Valley Adventure Guides
Hall Realty
Hard Rock 100
Harmel's
Heart of the Rockies
Heart of the Rockies Snowmobilers
Heron Construction
Hidden Valley Ranch
High Country Citizens Alliance
High Country Outfitters
High Mountain Drifter
Holman Ranches
Holman's High Country Outfitters
Hotchkiss Ranches, Inc.
Hotchkiss Ranches, Inc.
Hubbard Park Outfitters
Intermountain Forest Products
Intermountain Resources
Intermountain Timber Products
International Mountain Biking Assn
Irby Ranches L.L.C.
Irwin Lodge
Irwin Ten LLC
J.H. Wagner & Co. Inc.
Jacob's Ranch Partners
JKM Enterprises
Jones Lumber Company
Kitchen Pass 4-Wheelers, Pikes Peaks Chapter
Kuntz Living Trust
KW Wapiti Outfitters, LLC
L Ranch Partnership
La Garita Llamas
Lake City 50
Lakeview Resort & Outfitters
Lamborn Valley School
Land Rover of North America
Lazy F Bar Outfitters
Leisure Sports Photography
Leroux Creek Water Users Assn
Longacre Expeditions Inc.
Lost Enterprises, LLC
Lost Miner Ranch
Louisiana-Pacific Corporation
Lucky Cat Dog Farm
Marble General Store
McDonald's Outfitting Service
McIntyre Livestock Corporation
Mile-Hi Jeep Club
Miller Ranch Corporation
Mineral Mountain Outfitter & Guides
Motorcycle Enduro
Motorcycle Trail Riding Association
Mountain Coal Company
Mountain Valley Lumber Inc.
Mt. Lamborn Ranches
Murdie Subdivision Homeowners Association
Navigators
Needle Rock Ranch
Nicolas Brothers
Noah's Ark Adventure Program
National Outdoor Leadership School
Northern Colorado Trail Riders Association
Ouray Livery
Overland Ditch & Reservoir Co.
Paonia Garage & Sawmill
Paul Guerrieri & Sons
Pea Green Store
People for the USA
Pierce Brothers Outfitting
Pioneer Guide Service
Powderhorn Guest Ranch
PR Property Management Inc.
Premier Medical Group
Purcell Brothers Outfitting, Inc.
Quaking Aspen Outfitters
Quarter Circle Circle Ranch
Quiet Use Coalition Inc.
Rainbow Lake Lodge & Outfitters
Red Feather Bowmen
Redd Riders LLC
Redden Ranches, Inc.
Redstone Community Association
Rendezvous Outfitters & Guides
Riveria Drilling & Exploration
Roads Less Traveled
Rocky Mountain Bighorn Society
Rocky Mountain Biological Lab
Rocky Mountain Outfitters
Rocky Mountain Recreation Initiative
Rocky Mountain Safaris
Rocky Mountain Trials
Rocky Mountain Forestry
Round Up Riders of the Rockies
S&A Investments
Saddle Mountain Guest Ranch
San Juan Service
Scenic River Tours
Schmittel Packing & Outfitting
Sierra Club, Rocky Mountain Chapter
Sierra Club, Uncompahgre Group
Silver Fox Outfitters
Silver Thread Interest
SINAPU
Smith Forest Products
Soap Mesa Venture LLC
Spadafore Ranches, Inc.
Spann Ranches, Inc.
Sperry's Inc.
Spruce Ridge Llamas
Staiduharranches
State Farm Insurance

Stover Ranches
Sutherland Ranches
Tabor Mountain School
Taylor Park Cattle Association
Taylor Park Marina Ltd
Tenderfoot Outfitter & Guide Services
Terror Ditch & Reservoir Co.
The Bear Ranch
The Nature Conservancy
The Rock at Ute Trail
The Wilderness Society
Thor
Three Rivers Resort
Thunder Mountain Wheelers
Timberline Bicycle Tours
Timberline Llamas
Timberline Outfitters & Guides
Todd Enterprises
Trailmark Outdoor Adventure
Trampe and Rundell
Triangle Forest Products
Trout Unlimited
Trout Unlimited, Grand Valley Anglers
Upper Arkansas Motorized Recreation Coalition
US Forest Industries Inc
Vader Cloverleaf Ranch
Valley View Guest Ranch
Vaughan Ranches
Vickers Enterprises Inc.
Wapiti Canyon Ranch
Ward Ranches, Inc.
Waunita Hot Springs Ranch
Western Colorado Outfitters
Western Land Group, Inc.
Western Slope 4-Wheelers Association
Western Slope ATV Association
Western Slope Environmental Resource Council
Western State College
Whinnery Outfitting
Wilderness Opportunities
Wilderness Ranch
Wilderness Society
Wilderness Study Group
Wildhorse Energy
X7R Ranch
XTC Cycles
Young Brothers

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Walter Schroeder
Leonard & Iva Schultz
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Paul & Patricia Seebeck
Sandra & Bruce Sewell
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Adrienne Sherrill
George Sibley
Craig Simpson
Kenny Simpson
Floyd Skinner
Ken & Kaleta Slyzuik
David H. Smith
Dr. Jeffrey Smith
Harold Smith
Rocky Smith
W. Alan Smith
Terrell & Jo Snyder
Becki Sober
Tom & Pam Sober
Dean Soell
Cindy Somers
Steve Spaar
Frank Spadafore
Randy Spadafore
Doug Spann
John Stansfield
Greg Stedman
Jack Steenbergen
Elini Stelter
Marie Stone
Mac & Barbara Stratman
David Swonger
Joseph Taramarcaz
Lee Taramarcaz
John & MaryAnne Tarr
Dorothy Taylor
William & Deborah Taylor

William Theimer
Betsy Tine
Danny Todd
Everett & Ann Todd
Monty Todd
Dora Mae Trampe
Henry Trickett
Thomas Twerdall
Raymond Van Tuyl
Debra Van Winegarden
Todd Vandewar
Bill Vanice
Tim Vaughan
Kenny Vaught
Arthur & Patricia Vigil
Edwin Vigneaux
Richard Waack
Troy Wade
Mike Wakefield
James Walls
C.R. Walters Jr.
Orville Ware
Ricky Ware
Francis J.& Ire Weems
Judith Weir
Rick Weiss
Ralph Welp
John Whalley
Sarah Whalley
Helen Whinnery
Stan Whinnery
Billy & Cassie White
Daniel White
Julie White
Kelly Whittington
Ben & Lois Wiancko
Alan & Ann Wiggins
Monica & Wayne Wiitanen
Ruth Willey
Jim & Mary Willkinson
Gary & Helen Wilson
John Wineman
Jimmy Wise
Roger Womble
Burton Wright
Gene Writer
Beth Wyman
Ira Jon Yates
John & Barbara Yeoman
Jonathan Yoder
Joseph Youmans
Jess Young
Dick Yuhnke
Jerry & Alice Zeldenthuis
Susan Zmrzel
Michael & Shirley Zubowicz
Bob Zucca

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APPENDIX A

GLOSSARY

ATV: All-terrain-vehicle. Also called 4-wheelers.

Access: This term generally refers to a road or trail route over which a public agency claims a right-of-way for public use.

BLM: Bureau of Land Management

Classified: A road constructed or maintained for long-term highway-vehicle use. Classified roads may be public, private or forest development.

Decommission: The term is primarily assigned to roads. It is the act of removing motorized use from a travelway. Activities range from blocking the entrance, scattering boughs on the roadbed, revegetating, and waterbarring, to removing fills and culverts, re-establishing drainage-ways, and pulling back unstable road shoulders, to full obliteration by re-contouring slopes. The end result is to terminate the function as a road and mitigate the adverse impacts.

Designated Routes: Designated routes include all Forest Service, BLM, and user-created roads marked with a numbered route marker. Designated routes also include all Forest Service, BLM, and user-created trails marked with symbols authorizing motorized use. User-created routes were not designed for safe public travel or resource protection; thus, travel on these routes is at the risk of the public lands user, provided resource damage does not occur.

Forest Development Road: A forest road under the jurisdiction of the Forest Service (23 U.S.C. 101), which has been determined through an interdisciplinary process to be necessary for the protection, administration, and/or use of National Forest System lands.

Forest Transportation System: A term, sometimes shortened to "system," generally used to denote the database containing information about all travelways classified as Forest Development Roads.

GMUG: Grand Mesa, Uncompahgre, and Gunnison National Forests

GTAA: Gunnison Travel Analysis Area. The area examined in this EA.

Highway Safety Act (Roads Subject to the): Forest Development Roads that are open to unrestricted use by the general public for standard passenger cars. These roads include those that are closed on a seasonal basis, closed during extreme weather conditions or

fore emergencies but are otherwise open for public use (FSM 1535.11; FSH 7709.58, sec. 12.3 para. 3).

Improved Road: A Forest Development Road designed for passenger vehicles that is included in the Forest Development Transportation Plan. The surface of this category of road is well-compacted and maintained with hardened, gravel, or native material that provides a stable surface during the normal season of use. These roads are generally double-lane or single-lane with turnouts.

Jurisdiction: The legal right to control or regulate use of a transportation facility. Jurisdiction requires authority, but not necessarily ownership. The authority to construct or maintain a road may be derived from fee title, an easement, an agreement, or some other similar method.

Maintenance Level 3 Roads: This is a level assigned to roads open and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities. Roads in this maintenance level are typically low speed, single lane with turnouts and spot surfacing. Some roads may be fully surfaced with either native or processed material. Appropriate traffic management strategies are either "encourage" or "accept." "Discourage" or "prohibit" strategies may be employed for certain classes of vehicles or users.

Mechanized Vehicle: Mountain Bike

Motorized Vehicle: As used in this document -- any sport-utility or four-wheel-drive vehicle, all-terrain vehicle, Humvee, or motorcycle that may be used off roads and trails.

NEPA: National Environmental Policy Act

NF: National Forest

Non-classified: An existing road, user-created road, or RS2477 road, whose need and jurisdiction is to be determined. A road that is not constructed, maintained, or intended for long-term highway vehicle use, such as roads built for temporary access and other remnants of short-term roads associated with fire suppression, timber harvest; oil, gas and mineral activities; as well as travelways resulting from off-highway use.

Non-System: Roads and trails that were developed over time by various users such as ATVs, livestock, big game, and horseback riders. They do not meet current design standards and drainage facilities have not been installed to reduce erosion. The new Forest Service term for these type of routes is "non-classified." See also definition for user-created.

OHV: Off-highway vehicle, including sport-utility vehicles, ATVs, Humvees, and motorcycles.

Obliteration: The act of eliminating the functional characteristics of a travelway and the reestablishment of natural resource production capability. The intent is to make the corridor unusable as a road or a trail and stabilize it against soil loss. Generally, a road will not be considered obliterated unless natural drainage patterns have been restored through recontouring.

Obliterated: For the purpose of this analysis, the term obliterated refers to any intentional activity that is designed to prevent the use of motorized vehicles on an existing travelway. These activities range from decommissioning the road by blocking the entrance, scattering boughs on the roadbed, or revegetating and adding waterbars to removing fill and culverts, reestablishing original drainage patterns, and/or recontouring the road template (full obliteration). Regardless of the method, the result is to terminate the function of the travelway as a road and mitigate adverse impacts to some degree.

Off-Highway Vehicle: Any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, snow, ice, marsh, swampland, or other natural terrain. It includes, but is not limited to, four-wheel-drive or low-pressure-tire vehicles, motorcycles and related two-wheel vehicles, amphibious machines, ground-effect or air-cushion vehicles, and any other means of transportation deriving power from any source other than muscle or wind.

Off-Road Vehicle: See definition under Off-Highway Vehicle.

Public Lands: Official nomenclature for the lands managed by BLM. (Similarly, lands managed by the Forest Service are called National Forest System lands).

Public Road: Any road under the jurisdiction of, and maintained by, a public authority which is "open to public travel." (23 U.S.C. 101a)

Recreation Opportunity Spectrum (ROS): Land delineations that identify a variety of recreation experience opportunities categorized into six classes along a continuum from primitive to urban. Each class is defined in terms of the degree to which it satisfied certain recreation-experience needs based on the extent to which the natural environment has been modified, the type of facilities provided, the degree of outdoor skills needed to enjoy the area, and the relative density of recreation use (USDA, FS ROS Users Guide). The six classes are:

> **Primitive:** Area is characterized by essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other uses is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted. The following subclass of the Primitive ROS class is used in some wilderness prescriptions.
>
> **Pristine:** Area is characterized by essentially pristine biophysical conditions and a high degree of remoteness for both wildlife and humans with no perceptible

evidence of past human use. Interaction between users is very low. All resource management activities are integrated so that natural biological processes are not adversely or artificially changed over time by human use.

Semi-Primitive Non-Motorized: An area that is characterized by a predominately natural or natural-appearing environment of moderate-to-large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present but are subtle. Motorized recreation use is not permitted, but local roads used for other resource management activities may be present on a limited basis. Use of such roads is restricted to minimize impacts on recreation experience opportunities.

Semi-Primitive Motorized: An area that is characterized by a predominately natural or natural-appearing environment of moderate-to-large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized recreation use is allowed using local primitive or collector roads with predominately natural surfaces and trails suitable for motorbike use.

Roaded Natural: Area is characterized by predominately natural-appearing environments with moderate evidences of the sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be moderate to high, with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is provided for in construction standards and design of facilities.

Rural: Area where the natural environment has been substantially modified by development of structures, vegetative manipulation, and/or pastoral agricultural development. Resource modification and utilization practices may be used to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Moderate densities are provided for away from developed sites. Facilities for intensified motorized use and parking are available.

Urban: Area is characterized by a substantially urbanized environment, although the background may have natural-appearing elements. Renewable resource modification and utilization practices are often used to enhance specific recreation activities. Vegetative cover is often exotic and manicured. Sights and sounds of humans, on-site, are predominant. Large numbers of users can be expected both on-site and in nearby areas. Facilities for highly intensified motor use and

parking are available with forms of mass transit often available to carry people throughout the site.

Road: A general term denoting a transportation facility for purposes of travel by vehicles.

System: Roads and trails that are inventoried, managed, operated, and maintained. Appropriated road and trail dollars are available for their operation and maintenance. They are usually signed and noted on maps. The new Forest Service term for these routes is "classified."

Temporary Roads: Roads associated with timber sale contracts, fire activities, or other short-term access needs, not necessary for future resource management and not intended to be part of the forest development transportation plan.

Trail: A commonly used term denoting a pathway for purposes of travel by foot, stock, or trail vehicles.

Unimproved Road: A Forest Development Road included in the Forest Development Transportation Plan designed for high-clearance and 4-wheel-drive vehicles. The surface of this category of road is maintained only to provide drainage and to protect the surrounding environment. The surface is usually rough and irregular. The road width is generally 10 to 14 feet, and backing to allow vehicles to pass should be expected.

User-Created Route: Any travelway that has been created through repeated use, primarily for recreation or access purposes, and was not planned, located, designed, or constructed in accordance with Forest Service or BLM Road Specifications.

Wheeled Vehicles: Any motorized or non-motorized conveyance (four-wheel-drives, ATVs, Humvees, motorcycles, mountain bikes) that may be used off roads and trails.

APPENDIX B

THREATENED, ENDANGERED, PROPOSED, AND SENSITIVE SPECIES

Table 1. Threatened, Endangered, Proposed Species

Common Name	Scientific Name	Status[1]	Potential Habitat in Analysis Area
Invertebrates			
Uncompahgre fritillary butterfly	*Bolorea acrocnema*	E	Alpine associated with snow willow (*Salix reticulata nivalis*)
Birds			
Bald Eagle	*Haliaeetus leucocephalus*	T, EC Proposed for Delisting	Major river systems, reservoirs
Southwestern willow flycatcher	*Empidonax traili extimus*	E	Riparian along drainages
Whooping crane	*Grus americana*	E	Marshlands, riverine
Mexican spotted owl	*Strix occidentalis*	T	Pockets of Douglas-fir on steep canyon side-slopes
Mammals			
Black-footed ferret	*Mustela nigripes*	E	Preferred habitat represented by prairie dog towns in lower elevation valleys
Canada lynx	*Lynx canadensis*	T	Spruce/fir/mixed conifer/lodgepole pine forests
Plants			
Clay-loving wild buckwheat	*Eriogonum pelinophilum*	E	Mancos shale badlands in salt desert shrub communities. 5,200-6,400 feet in elevation.
Uinta Basin hookless cactus	*Sclerocactus glaucus*	T	Rocky hills, mesa slopes, alluvial benches, desert shrub communities. 4,500-6,000 feet in elevation.

[1] Status:

E = Listed as Endangered by the U.S. Fish and wildlife Service under the Endangered Species Act. Species that are in imminent jeopardy of extinction.

T = Listed as Threatened by the U.S. Fish and Wildlife Service under the Endangered Species Act. Species that are threatened with extinction.

P = Proposed for listing as Threatened or Endangered by the U.S. Fish and Wildlife Service

EC = Listed by the Colorado Division of Wildlife as endangered in Colorado.

Table 2. Sensitive Wildlife Species

Common Name	Scientific Name	Status[1]	Potential Habitat in Analysis Area
Invertebrates			
Great Basin silverspot butterfly	*Speyeria nokomis*	BLM	Marshlands and boggy streamsides
Birds			
Northern goshawk	*Accipiter gentilis*	FS, BLM	Mature spruce-fir, aspen, Douglas-fir forests
Gunnison sage grouse	*Centrocercus minimus*	BLM	Sagebrush
Long-billed curlew	*Numenius americanus*	BLM	Wetlands
White-faced ibis	*Plegadis chihi*	FS, BLM	Wetlands
Flammulated owl	*Otus flammeolus*	FS	Mature ponderosa pine./Douglas-fir forests
Three-toed woodpecker	*Picoides tridactylus*	FS	Mature Douglas-fir and spruce-fir forests
Black swift	*Cypseloides niger*	FS	Cliffs near waterfalls
Olive-sided flycatcher	*Contopus borealis*	FS	Spruce-fir forests
Golden-crowned kinglet	*Regulus satrapa*	FS	Mature spruce-fir and Douglas-fir forests
Loggerhead shrike	*Lanius ludovicianus*	FS	Open shrubby habitats
Boreal owl	*Aegolius funereus*	FS	Mature spruce-fir, Douglas-fir forests
Western burrowing owl	*Athenecunicularia hypugea*	FS	Associated with rodent burrows in grasslands and desert habitats
Ferruginous hawk	*Buteo regalis*	FS, BLM	Short-grass prairie
Osprey	*Pandion haliaetus*	FS	Forested wetlands along larger rivers, lakes and reservoirs
Pygmy nuthatch	*Sitta pygmaea*	FS	Mature ponderosa pine
Fox sparrow	*Passerella iliaca*	FS	Riparian
Baird's sparrow	*Ammodramus bairdii*	FS	Prairie grassland
Lewis' woodpecker	*Malanerpes lewis*	FS	
Purple martin	*Progne subis*	FS	Forested areas, snags with existing cavities. Feeds over open grassy areas and open water
Reptiles			
Longnose leopard lizard	*Gambelia wislizenii*	BLM	Lower elevation (below 6,000 feet) arid vegetation zones
Milksnake	*Lampropeltis triangulum*	FS	Lower elevation (below 6,000 feet) arid vegetation zones
Amphibians			
Boreal Toad	*Bufo boreas boreas*	C, FS	Wetlands. ponds, still water areas, elevations form 7,000 to 12,900 feet
Tiger Salamander	*Ambystoma tigrinum*	FS	Wetlands and aquatic
Northern leopard frog	*Rana pipiens*	FS	Wetlands and aquatic
Canyon tree frog	*Hyla arenicolor*	BLM	Wetlands, aquatic
Fish			
Colorado River cutthroat trout	*Oncorhyncus clarki pleuriticus*	FS	Streams and rivers
Bluehead sucker	*Catostomus discobulus*	BLM	Streams and rivers
Flannelmouth sucker	*Catostomus latipinnis*	BLM	Streams and rivers
Roundtail chub	*Gila robusta*	BLM	Streams and rivers
Mammals			
Spotted bat	*Euderma maculatum*	FS, BLM	Rocky cliffs near riparian habitats
Townsend's big-eared bat	*Plecotus townsendii*	FS, BLM	Natural caves, abandoned mine adits
Fringed myotis	*Myotis thysanodes*	BLM	Mines, caves, rock crevices, buildings and trees
Allen's (Mexican) big-eared bat	*Idionycteris phyllotis*	BLM	Mines, caves, rock crevices, buildings and trees
Yuma myotis	*Myotis yumanensis*	BLM	Mines, caves, rock crevices, buildings and trees
American marten	*Martes americana*	FS	Mature spruce-fir , lodgepole pine
Dwarf shrew	*Sorex nanus*	FS	Rock slides, rocky areas
Pygmy shrew	*Microsorex hoyi montanus*	FS	Spruce-fir bog, sphagnum.
Wolverine	*Gulo gulo luscus*	FS	Timbered ridges and creek bottoms for travel. Need large areas with little human activity.

[1] Status:

C = Candidate for listing as Threatened or Endangered. U.S. Fish and Wildlife Service have sufficient information on biological vulnerability and threats to support proposals to list as an endangered or threatened species.
FS = Classified as "sensitive" by the Regional Forester when occurring on lands managed by the U.S. Forest Service (5/6/94).
BLM = BLM-listed sensitive species.

Table 3. Sensitive Plant Species

Common Name	Scientific Name	Status[1]	Habitat Characteristics
Crandall rockcress	*Arabis crandalii*	BLM	Rocky sagebrush
Gunnison milkvetch	*Astragalus anisus*	FS	Dry or sandy clay soils, under low sagebrush. 7,500-8,500 feet elevation.
Grand Junction milkvetch	*A. linifolius*	BLM	Chinle and Morrison geologic formations. 4,800-6,200 feet elevation.
Skiff milkvetch	*A. microcymbus*	BLM	Open sagebrush or juniper, mod. To steep slopes. 7,600-8,400 feet in elevation
Molybdenum milkvetch	*A. molybdenus*	FS	Rocky slopes, turf hillsides. 11,400-13,200 feet elevation.
Naturita milkvetch	*A. naturitensis*	BLM	Sandstone mesas in pinyon-juniper woods. 5,000-7,000 feet elevation.
Sandstone milkvetch	*A. sesquiflorus*	BLM	Sandstone ledges, talus and sandy washes. 5,000-5,500 feet in elevation.
Smooth rockcress	*Braya glabella*	FS	Calcareous substrate above timberline. 12,000-13,000 feet in elevation.
Reflected moonwort	*Botrychium echo*	FS	Gravelly granite sites above 10,000 feet in elevation. Usually full sun and < 6% slope.
Slender moonwort	*Botrychium lineare*	FS	Gravelly sites on edge of aspen.
Rocky Mountain thistle	*Cirsium perplexans*	BLM	Barren gray shale; adobe hills. 4,500-7,000 feet in elevation.
Round-leaf sundew	*Drosera rotundifolia*	FS	Peat mats, acidic ponds and fens. 9,100-9,800 feet in elevation.
Wooly fleabane	*Erigeron lanatus*	FS	Steep alpine scree, talus slopes. 12,500-13,500 feet in elevation.
Colorado wild buckwheat	*Eriogonumcoloradense*	BLM	Gravelly or sandy soils; subalpine, alpine slope, montane grasslands. 8,500-12,500 feet in elevation.
White-bristle cotton grass	*Eriphorum altaicum*	FS	Fens and wetlands. 9,500-14,000 feet in elevation.
Beard-tongue gilia	*Gila penstemonoides*	FS	Walls, ledges, cliffs in gneiss, schist and shale. 6,800-9,000 feet in elevation.
Montrose bladderpod	*Lesquerella vicina*	BLM	Mancos shale, also sandstone soils, sagebrush steppe; disturbances. 6,000-7,200 feet in elevation.
Northern twayblade	*Listera borealis*	BLM	Moist, spruce forests. 8,700-10,800 feet in elevation.
Colorado desert parsley	*Lomatium cocinnum*	BLM	Rocky soils from Mancos shale; shrub communities. 5,500-7,000 feet in elevation.
Paradox Valley lupine	*Lupinus crassus*	BLM	Chinle and Mancos geologic formations; sparse vegetation. 5,000-5,800 feet in elevation.
Dolores skeleton plant	*Lygodesmia doloresensis*	BLM	Red alluvial soil in juniper grassland. 4,400-4,700 feet in elevation.
Colorado tansy aster	*Machaeranthera coloradoensis*	FS	Gravelly parks, slopes, rock outcrops up to dry tundra. 8,500-12,500 feet in elevation.
Eastwood monkey-flower	*Mimulus eastwoodiae*	BLM	Shallow caves and seeps on canyon walls. 4,700-5,800 feet in elevation.
Paradox breadroot	*Pediomelum aromaticum*	BLM	Red clay, clay outcrops, rocky soils, rock outcrops. 4,000-5,000 feet in elevation.
Woolly willow	*Salix lanata*	FS	Alpine, limestone outcrops. 11,000-13,000 feet in elevation.
Hapman's coolwort	*Sullivantia hapemanii*	FS	Hanging gardens, wet cliffs, boulders in limestone and shale. 7,000-10,000 feet in elevation.

[1] Status:
C = Candidate for listing as Threatened or Endangered. U.S. Fish and Wildlife Service have sufficient information on biological vulnerability and threats to support proposals to list as an endangered or threatened species.
FS = Classified as "sensitive" by the Regional Forester when occurring on lands managed by the U.S. Forest Service (5/6/94).
BLM = BLM listed sensitive species.
EC = Listed by the Colorado Division of Wildlife as endangered in Colorado.

APPENDIX C

MOTORIZED AND MECHANIZED VEHICLE RESTRICTIONS ON BLM-MANAGED LANDS – UNCOMPAHGRE AND GUNNISON FIELD OFFICES

Tables A and B show the current restrictions for motorized and mechanized vehicle use for affected management units (**MUs**) analyzed in this EA within the GTAA. Management unit locations may be found in the Uncompahgre and Gunnison Resource Management Plans.

TABLE A

Current Motorized and Mechanized Vehicle Restrictions
BLM - Uncompahgre Field Office (UFO)

MU	MU Acres Within GTTA	Motorized Restrictions	Mechanized Restrictions
2	36,615	Limited to designated roads/trails seasonally if needed	None
3	1,112	Limited to designated roads/trails seasonally if needed	None
5	1,329	Limited to designated roads/trails seasonally if needed	None
7	1,730	Crucial winter range in Unit 7, where use is limited to designated roads and trails seasonally, if needed, to protect wintering big game	None
7	948	Riparian areas in Bear and Roatcap Creeks, where use is limited to designated roads/trails yearlong	None
9	726	Riparian areas, where use is limited to designated roads/trails yearlong	None
14	80	Needle Rock – limited to designated roads/trails yearlong	None
7 and 16	24,107	None	None
Total UFO Acres in GTAA	66,647		

No roads or trails in the GTAA within the UFO have been designated or signed that would restrict off-route travel by motorized or mechanized vehicles, either yearlong or seasonally.

TABLE B

Current Motorized and Mechanized Vehicle Restrictions
BLM - Gunnison Field Office

MU	MU Acres Within GTTA	Motorized Restrictions	Mechanized Restrictions
1	95,827; (14,954 open)	None, except for: 1) 80,873 acres south of the north section line, Sec. 12, T. 45 N., R. 4 W., NMPM, where motorized use is limited to designated roads and trails yearlong	None
2	47,762	Closed	Closed
3	2,710	None	None
4	1,597	Restricted to designated routes yearlong	None
5	5,960	Restricted to designated routes yearlong	None
6	1,405	Restricted to designated routes yearlong	None
7	27,615	Limited to designated roads/trails seasonally if needed, except 600 acres closed yearlong to motorized use	None
8	4,570	Restricted to designated routes yearlong	None
9	535	Closed	None
10	15,112	None	None
11	57,525	None	None
12	91,547	None, except for 37,423 acres where use is now limited to designated roads/trails seasonally, if needed (east of the Gunnison River, north of Hwy. 50, and west of Quartz Creek)	None
13	187,030	Some use is now limited to designated roads/trails seasonally if needed	None
14	2,667	None	None
15	4,725	None, except: 1) 235 acres in Alder Creek, where use is limited to designated roads/trails seasonally if needed 2) 1,680 acres south of Lake City, where motorized use is now limited to designated routes yearlong	None
16	36,768	None on 33,695 acres; 3,073 acres where use is limited to designated roads/trails seasonally if needed	None

Acres where off-route motorized vehicle use would be affected by the proposed action: 429,033

Acres where off-route mechanized vehicle use would be affected by the proposed action: 537,238

Powderhorn Wilderness is closed to motorized/mechanized vehicle use.

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