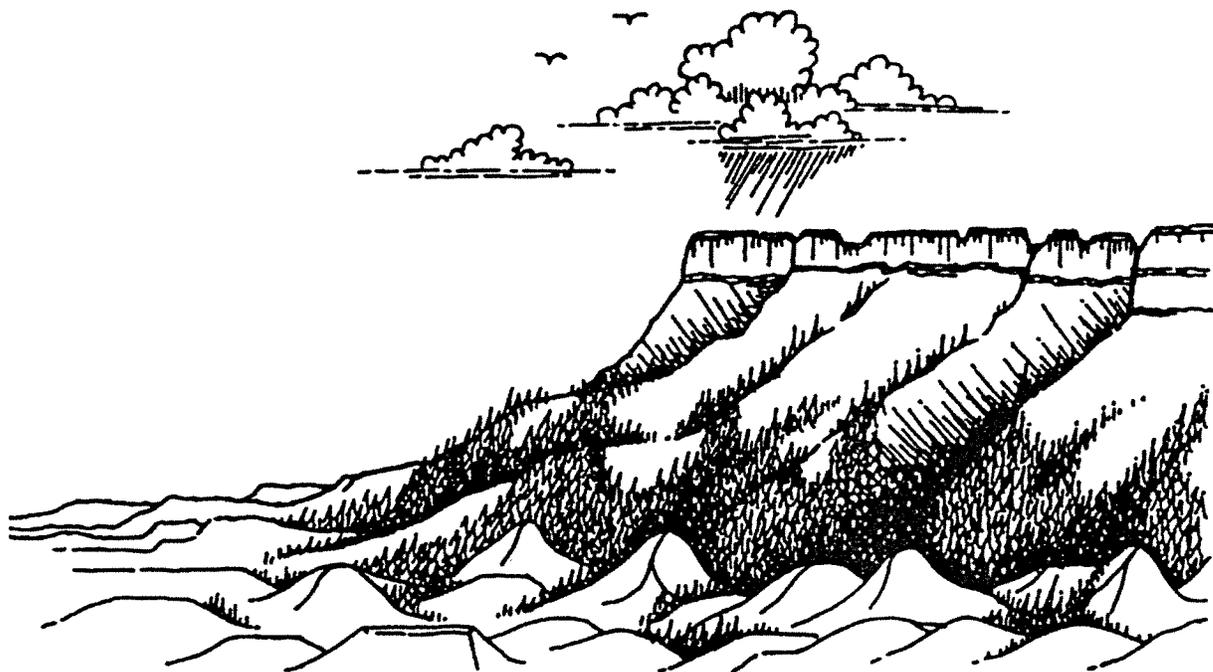


**ENVIRONMENTAL ASSESSMENT
GRAND MESA NATIONAL FOREST
TRAVEL MANAGEMENT PLAN
REVISION**



**Mesa & Delta Counties
Collbran and Grand Junction Ranger Districts
Grand Mesa, Uncompahgre and Gunnison
National Forests**

June 1994





United States
Department of
Agriculture

Forest
Service

Grand Mesa, Uncompahgre and
Gunnison National Forests

2250 Highway 50
Delta, Colorado
81416
303-874-7691

Reply to: 1920

Date: June 30, 1994

Dear Concerned Citizen:

This is a copy of the **Environmental Assessment of The Grand Mesa National Forest Travel Management Plan Revision**. This document analyzes the effects of alternative travel management strategies on elements of the forest ecosystem, as well as impacts to recreation experiences of forest users and social/economic impacts that may be felt in areas surrounding the Grand Mesa National Forest.

The draft Environmental Assessment was released to the public on September 3, 1993 for 60 days. During this period the Forest received 1500 comments letters and 827 petition signatures. This travel plan revision addresses many of the comments and concerns identified during this period.

As a result of the public comment and further analysis by the Forest Service the following changes have been made:

A fourth Alternative has been added.

Special authorization would be provided for disabled individuals
-- similar to that used by Colorado Division of Wildlife

Off-route retrieval of "downed game," using motorized vehicles, would be allowed in certain areas

Travel Authorization would be given to permittees, Water Users and State Dam Inspectors for official business in restricted or closed travel areas

Greater analysis has been given to the Social and Economic portions of the document

Off-highway vehicles would be permitted on gravel roads that make trail connections and loop trails

Additional detail was added to the Mitigation and Monitoring portions of the document





The action proposed (the preferred alternative) by the Forest Service is analyzed as Alternative 3 in the Environmental Assessment. The proposed action would restrict all motorized travel to designated routes, with two exceptions. Snowmobile travel would be allowed over most of the Grand Mesa National Forest, except in areas closed all year to motorized travel (Kannah Creek Basin), areas protected for big game winter range (lower Kannah Creek Basin and Hightower areas), and elk calving and spring transitional big games ranges (sideslopes along the northern edge of Grand Mesa and southern edge of Battlement Mesa) after approximately April 15. Off-route travel by motorized trail vehicles (i.e. ATVs) would be allowed between noon and 5:00 p.m. during big game hunting season, in designated areas (80,283 acres) for game retrieval, provided resource damage does not occur.

The proposed action would focus on operating and maintaining a network of roads and trails which would provide a full spectrum of recreation opportunities to Forest users. The transportation system would include: 25 miles of paved roads, 105 miles of graveled roads, 75 miles of low standard roads, 117 miles of primitive roads, 198 miles of trails designated for motorized use, and 119 miles of trails for non-motorized use. Approximately 299 miles of user-developed routes (currently not maintained as part of the Forest transportation system) would be closed. All low standard and primitive roads and approximately 24 miles of graveled roads would be authorized as open to motorized trail vehicles (in addition to the motorized trails) and would be incorporated into the Colorado Off-Highway Vehicle Trails & Riding Areas map.

Designated travelways would be signed on the ground and depicted on a new Travel Map. In addition, maps specific to user types (e.g. ATV, snowmobile, cross-country ski, etc.) will be developed in cooperation with user groups.

Comments on this proposed action will be accepted for a 30-day period following publication of a public notice in the Grand Junction Daily Sentinel. Send any comments to:

Grand Mesa Travel Plan
2250 Highway 50
Delta, CO 81416

If you have any questions concerning this proposal, please call Tom Condos at this office (303-874-7691).

Thank you.

Sincerely,

ROBERT L. STORCH
Forest Supervisor

Enclosure



Table of Contents

| | |
|---|-----------|
| I. Introduction | 1 |
| A. Purpose & Need | 1 |
| B. Decisions to Be Made | 6 |
| First Level Decision | 6 |
| Second Level Decision | 6 |
| C. Proposed Action | 7 |
| II. Issues | 7 |
| A. Scoping and Early Public Involvement | 7 |
| B. Later Public Involvement | 9 |
| C. Significant Environmental Issues | 9 |
| Watershed Issues | 9 |
| Wildlife-Fish-Native Plant Issues | 10 |
| Livestock Issues | 10 |
| Recreation Issues | 10 |
| Accessibility Issues | 10 |
| Road and Trail Issues | 10 |
| Management/Administration Issues | 10 |
| Socioeconomic Issues | 11 |
| III. Alternatives | 11 |
| A. Management Requirements | 11 |
| B. Actions Common to All Alternatives | 12 |
| C. Actions Common To Alternatives 2, 3 and 4 | 13 |
| D. Alternatives Eliminated from Consideration | 15 |
| E. Alternatives Considered and Analyzed in Detail | 15 |
| Alternative 1 (No Action) | 16 |
| Alternative 2 (1991 Travel Plan) | 19 |
| Alternative 3 (Proposed Action) | 23 |
| Alternative 4 (TMW Proposal) | 29 |
| F. Comparison of Alternatives | 33 |
| G. Mitigation and Monitoring | 36 |
| IV. Environmental Consequences | 38 |
| A. General Consequences of Area-wide Management Options | 39 |
| 1. Cultural Resources | 39 |
| 2. Soils | 39 |
| 3. Water | 41 |
| 4. Vegetation | 42 |
| 5. Fisheries, Aquatic and Riparian Resources | 43 |

Table of Contents

| | |
|---|-----------|
| 6. Wildlife Habitat | 44 |
| 7. Threatened, Endangered and Sensitive Species | 45 |
| 8. Livestock Management | 50 |
| 9. Recreation | 51 |
| 10. Roads and Trails | 53 |
| 11. Special Uses | 54 |
| B. Area Specific Consequences | 55 |
| 1. Battlement Mesa | 55 |
| 2. Mud Hill/Road Gulch/Hightower | 55 |
| 3. Porter | 55 |
| 4. Ruth Mountain | 56 |
| 5. Willow Park/Plateau Creek | 56 |
| 6. Flat Tops | 56 |
| 7. Upper Leon | 56 |
| 8. Leroux Creek Drainage to Marcott Creek Road | 56 |
| 9. Marcott Creek to Hwy. 65 | 57 |
| 10. Highway 65 and Trickle Park Road Corridor | 57 |
| 11. Highway 65 to Alkali Basin, Below the Rim | 57 |
| 12. Lands End and Indian Point | 57 |
| 13. Alkali/Kannah Creek/Whitewater Basin | 58 |
| 14. Mesa Lakes | 58 |
| 15. Coon/Bull/Cottonwood | 58 |
| 16. Horse Mountain/Bonham | 58 |
| 17. Sheep Flats/Young Lake | 58 |
| 18. Fruita Division | 59 |
| C. Specific Road and Trail Consequences | 59 |
| D. Environmental Consequences of Alternatives | 63 |
| 1. Soils and Water | 63 |
| 2. Vegetation | 64 |
| 3. Fisheries, Aquatic and Riparian Resources | 65 |
| 4. Wildlife Habitat | 66 |
| 5. Threatened, Endangered and Sensitive Species | 67 |
| 6. Livestock Management | 68 |
| 7. Recreation | 69 |
| 8. Roads and Trails | 75 |
| 9. Special Uses | 77 |
| 10. Social/Economic Effects | 78 |
| 11. Irreversible and Irretrievable Impacts | 89 |
| 12. Cumulative Effects | 90 |
| V. Consultation and Coordination | 91 |
| VI. Literature Reviewed | 93 |

List of Figures

| | |
|---|----|
| Figure 1 Location Map | 2 |
| Figure 2 Planning Areas | 5 |
| Figure 3 Alternative 1 Area Designation Map | 17 |
| Figure 4 Alternative 2 Area Designation Map | 20 |
| Figure 5 Alternative 3 Area Designation Map | 24 |
| Figure 6 Alternative 3 Winter Travel Management | 26 |
| Figure 7 Alternative 4 Area Designation Map | 30 |

List of Tables

| | |
|---|----|
| Table 1. Alternative 1 at a Glance | 18 |
| Table 2. Alternative 2 at a Glance | 21 |
| Table 3. Alternative 3 at a Glance | 25 |
| Table 4. Alternative 4 at a Glance | 31 |
| Table 5. Travel Management Options by Planning Area | 33 |
| Table 6. Alternative Comparison - Road and Trail Miles | 34 |
| Table 7. Alternative Comparison - Transportation System by User Groups | 35 |
| Table 8. Low Standard System Roads with Proposed Changes | 60 |
| Table 9. Primitive System Roads with Proposed Changes | 61 |
| Table 10. System Trails with Proposed Changes | 62 |
| Table 11. Estimated Grand Mesa Dispersed Recreation Use Levels | 79 |
| Table 12. Alternative Dispersed Road and Trail Miles | 81 |
| Table 13. Change in Dispersed Motorized Road/Trail Miles From Alternative 1 | 82 |
| Table 14. Estimated Job and Income Losses From Road Closures | 82 |
| Table 15. Effects of Restricting Off-Route Motorized Travel During Hunting Season | 84 |
| Table 16. Alternative Compatibility with a Dispersed Motorized Marketing Strategy | 84 |
| Table 17. Alternative Forest Service Costs | 86 |
| Table 18. Historic and Anticipated Funding Needs Years 1-3 | 87 |
| Table 19. Motorized User Social Effects | 88 |
| Table 20. Non-Motorized User Social Effects | 89 |

Appendix A - Summary of Travel Management Working Group Recommendations**Appendix B - Response to Public Comment****Appendix C - Maps****Appendix D - Planning Area Descriptions****Appendix E - Tables of System Roads and Trails****Appendix F - Access to Lake/Reservoir Fisheries by Alternative**

ENVIRONMENTAL ASSESSMENT

Grand Mesa National Forest

Travel Management Plan

I. Introduction

The purpose of this Environmental Assessment (EA) is to describe the environmental effects of a proposal to revise the existing (1984) Travel Management Plan for the Grand Mesa National Forest. The new plan would be implemented beginning in 1995. The new travel management plan would apply to all of the Grand Mesa National Forest. (See general location map Figure 1, page 2.) The Uncompahgre and Gunnison National Forests are excluded.

There is a need to undertake this action to bring travel management into compliance with direction contained in the Amended Land and Resource Management Plan for the Grand Mesa, Uncompahgre and Gunnison National Forests (Forest Plan). Several alternative ways of carrying out these actions are disclosed in this document, including the "No Action" alternative. Each action alternative is designed to meet Forest Plan direction for travel management.

This Environmental Assessment is not a decision document. It does not describe the decision made by the Forest Supervisor with regard to this proposed project. The Environmental Assessment discloses the environmental consequences of implementing the proposed action and alternatives to that action. The Forest Supervisor's decision will be stated and explained in the Decision Notice which will be issued following public review of this EA.

This Environmental Assessment is concerned only with the impacts associated with the proposed action on the Grand Mesa National Forest. However, impacts which may occur on lands adjacent to the National Forest, and impacts which may occur in surrounding communities as a result of the proposed project are described in this document. Through consultation, other Federal, State and local entities have helped in identifying environmental consequences and in the development of alternatives to the proposed action. (See Section V. Consultation and Coordination, page 91.)

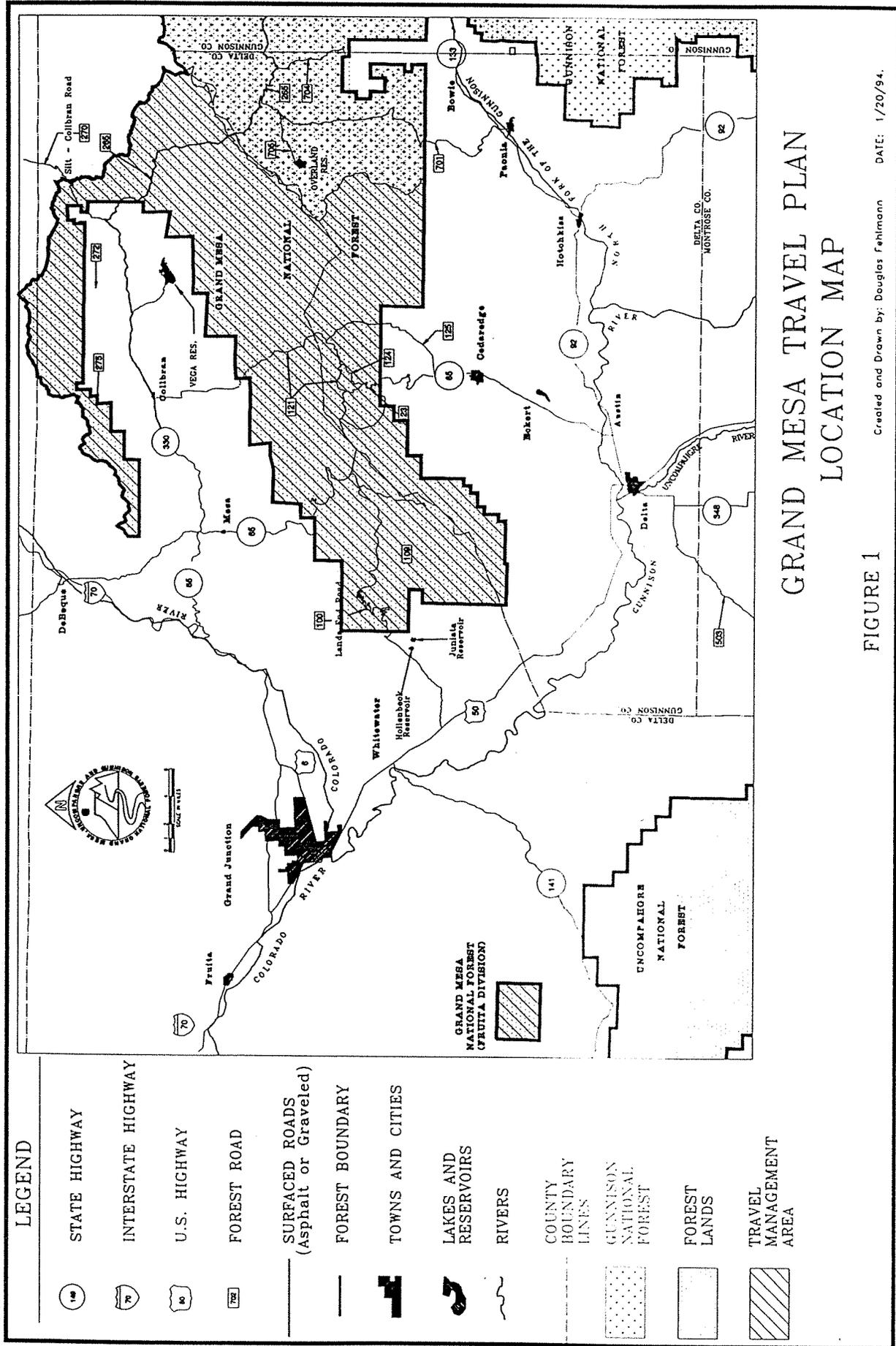
A. Purpose & Need

The purpose of the Grand Mesa Travel Management Plan is to identify travel management that will best provide safe access for recreation users, provide a variety of recreation opportunities and support resource management (e.g. reservoir administration, timber harvest, livestock grazing, mineral exploration and development), while protecting the environment. This Travel Management Plan will implement direction established in the Forest Plan.

Significant changes in the levels and types of transportation use have occurred on the Grand Mesa since the 1984 Travel Management Plan was implemented. A significant increase in off-route or cross-country motorized travel has occurred since 1984. In 1984, the all terrain vehicle (ATV) was a relatively new trail vehicle. Few mountain bikes existed. The 1984 Travel Management Plan needs revision to address the changes that have taken place in the last 10 years.

Four terms used throughout this document are important to reader understanding. They are:

System roads and trails - Those 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.



GRAND MESA TRAVEL PLAN
LOCATION MAP

FIGURE 1
Created and Drawn by: Douglas Fehlmann DATE: 1/20/94.

Nonsystem roads and trails - These roads/trails were developed over time by various users such as ATVs, livestock, big game and horseback riders. They sometimes dead end or become impassable in a short distance. They may also closely parallel a system road or trail. They do not meet current design standards and drainage facilities have not been installed to reduce erosion. They are not managed or maintained. (NOTE: The Forest Service did do a gross inventory of these nonsystem routes used by motorized vehicles, to ascertain the extent of user developed trails for this analysis. Which of these routes would be rehabilitated, incorporated into the proposed transportation system or left alone varies by alternative analyzed in this EA.)

Motorized trail vehicles - Defined as motorized vehicles less than 48 inches wide (motorcycles and ATVs). The defined width has increased as ATV widths have increased. Standard size vehicles, including four-wheel drive (4WD) vehicles, are not considered trail vehicles and are not permitted on trails that are open to motorized trail vehicles. Standard size vehicles are permitted only on roads. Thus, it is important to note the difference between routes marked as roads and those marked as trails.

Water users - This term refers to members of organizations which own water rights on the Forest, and which maintain and operate dams, reservoirs and ditches to store and transfer their water.

Use of ATVs as a recreational vehicle boomed in the late 1980's, both during the summer season for trail rides and fishing access, and in the fall for hunting access. Water users began using them as utility vehicles to access dams and reservoirs for operation and maintenance. Use of ATVs is expected to continue to grow, although not as rapidly as in the past decade. The ability of an ATV user to travel many more miles than foot or horseback users creates a new demand for a transportation system that provides day use with loops and linkages.

Along with the increasing numbers of ATVs, the physical characteristics of the ATV have changed over the decade, too. They have changed from the original fat-tired three-wheeler, less than 40 inches wide; to the ATV of today, with four-wheel drive, up to 48 inches wide. There are now greater impacts to the land with the current models of ATVs than with the original ATV.

Originally designed for use in wet areas the fat tired three-wheeler served well in agricultural areas to aid with irrigation and travel across crop lands. Advancement in ATV designs focused on the expanding user desires to access rougher terrain. Width added stability and four wheel drive added traction. The latest four-wheel drive all terrain vehicles react more like the full size vehicles users are accustomed to.

Use of mountain bikes (all terrain bicycles) has grown significantly since 1989. Many bikers use the existing roads and trails for easy rides. In addition, there are a number of bikers who enjoy the challenge of steep grades and cross-country travel.

Winter recreation users on the Forest are also increasing in number. There is increasing use and demand for a diversity of snowmobiling and cross-country skiing opportunities.

With the significant change in uses, there is a need to provide a network of roads and trails to meet the specific recreational needs of the hiker, horseback rider, mountain biker, ATV user, motorcycle rider, 4-wheel drive (4WD), pickup and passenger car driver, snowmobiler and cross-country skier. There needs to be linkages and loop routes that connect people to the places they want to go.

Under Colorado Revised Statute Section 33-14.5-108 (Off-highway Vehicle Law), unlicensed motorized vehicles may not be operated on the public streets, roads or highways except when the street, road or highway is designated open by the State, the United States or any agency thereof. Currently there are only 13.2 miles of trail (Cedar Mesa Trail, Eureka Trail and Green Mountain Trail) and 28 miles of roads

Grand Mesa Travel Management Plan EA

(FDR 121, 125, 126 and 127) accessing Vega State Park, Leon Lake, the Flat Tops and Leroux Creek area, designated as open to motorized trail vehicles under this State statute. Additional loop route opportunities could be achieved by designating all nonsurfaced roads on the Forest open to unlicensed motorized vehicles.

Also needed is improved signing, maps, information and user ethics education, to assist in travel management compliance through user cooperation and understanding.

Other resource management activities (i.e. timber harvest, mineral development, range/livestock management, water user dam operation) require motorized access on the Grand Mesa, also.

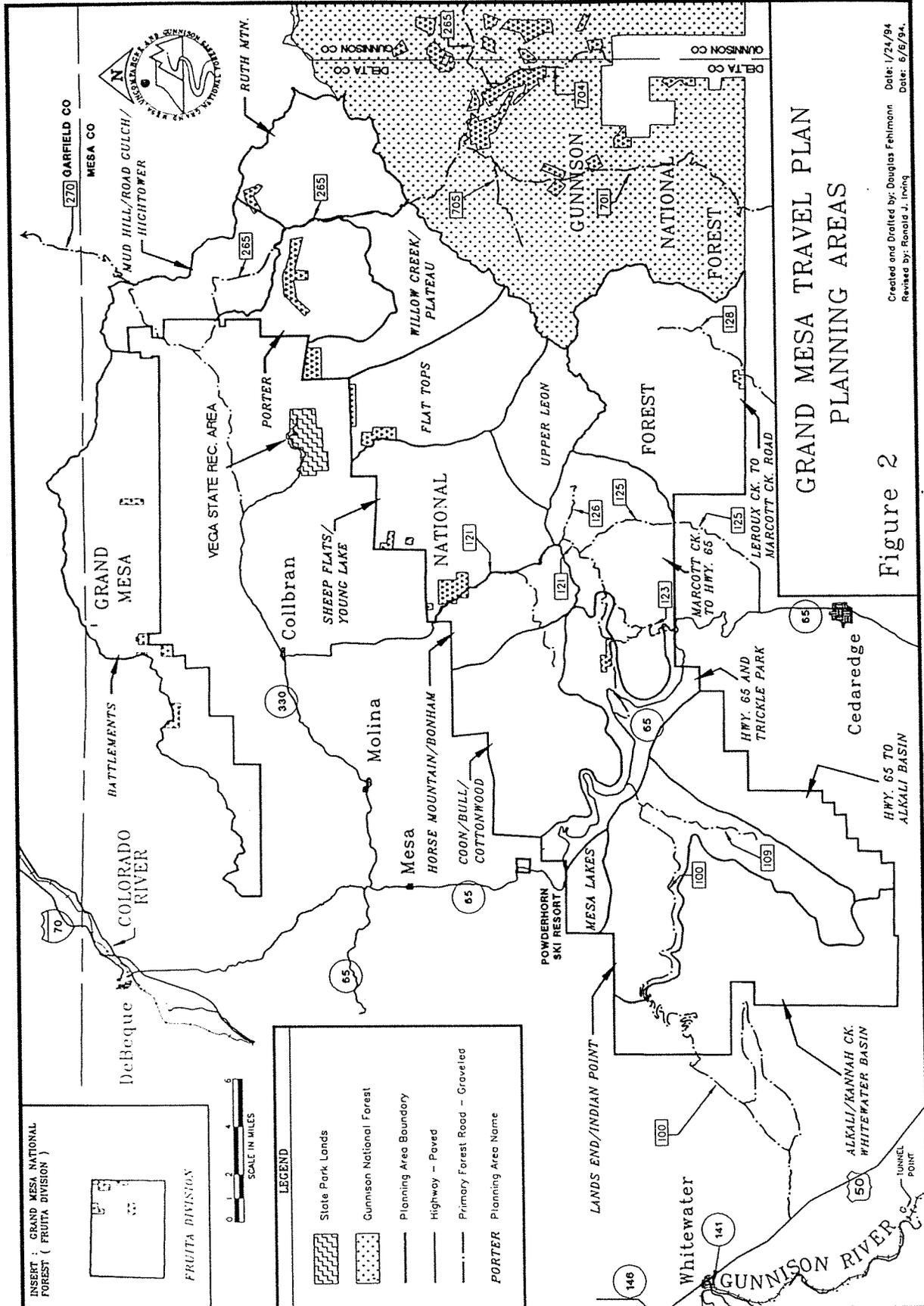
Under the existing travel management plan off-route motorized travel by both standard-sized vehicles and ATVs is allowed, provided resource damage does not occur. Concerns have been expressed by the public and Forest managers about impacts to vegetation, riparian areas and streams; the loss of solitude at backcountry fishing lakes/reservoirs; reduced hunting quality; and the new nonsystem routes being created by repeated use.

To some users, motorized and non-motorized means of travel are not compatible. However, both motorized and non-motorized uses are legitimate and have their place on a National Forest. Some areas are more suitable for one type of use over another. Other areas can provide opportunities for a mix of uses. There is a need to provide recreational opportunities for the different recreational user groups so that each group's needs can be met.

There is a need to manage the recreation use and resource management activities to protect: water quality; soils; vegetation; wildlife, fisheries and their habitats; and other environmental elements. Seven (7) municipal watersheds are located on the Grand Mesa National Forest. Some soils located on the Forest are highly susceptible to being rutted and compacted during wet soil conditions. Elevations from 6,000 to 11,000 feet have short growing seasons that limit the ability of vegetation to recover from disturbances. Varied wildlife habitat is found on the Forest. More than 100 natural and man-made lake/reservoir fisheries occur on the Grand Mesa.

Objectives specific to meeting the purpose and needs for travel management on the Grand Mesa National Forest are:

- Protect soils at riparian sites from being rutted, compacted and devegetated.
- Provide attractive trails and trailheads, with good user guidance and signing.
- Provide a system of both motorized and non-motorized routes to adequately meet the current and expected demand for a wide range of access modes.
- Reduce conflicting interaction among users.
- Anticipate use trends.
- Actively inform users about user ethics.
- Reduce erosion on trails; reduce sedimentation caused by traffic at stream crossings.
- Coordinate all resource projects to enhance travel management objectives and implementation.
- Reduce travel activity in important wildlife habitats during critical periods.



GRAND MESA TRAVEL PLAN
PLANNING AREAS

Figure 2

Created and Drafted by: Douglas Fehlmann Date: 1/24/94
Revised by: Ronald J. Irving Date: 6/6/94.

INSERT: GRAND MESA NATIONAL FOREST (FRUITA DIVISION)

FRUITA DIVISION

SCALE IN MILES
0 1 2 3 4 5 6

LEGEND

- State Park Lands
- Gunnison National Forest
- Planning Area Boundary
- Highway - Paved
- Primary Forest Road - Graveled
- Planning Area Name

PORTER

- Involve user groups in the signing and maintenance of designated routes.
- Provide for diverse Forest visitor experiences and degrees of accessibility.

B. Decisions to Be Made

There are **two levels of decision** that need to be made for the Grand Mesa Travel Management Plan.

First Level Decision

Because travel management involves more than travel (motorized and non-motorized) just along established routes (roads and trails), the **first level of decision needs to identify which travel management option(s) will be allowed in a given area**. There are five options for area-wide travel management:

- Off-route travel by all motorized vehicles is permitted.
- Off-route travel by motorized trail vehicles (less than 48" wide) is permitted.
- Travel by motorized vehicles is restricted to designated routes only, including snow-mobiles operating on snow.
- Travel by motorized vehicles is restricted to designated routes only, excluding snow-mobiles operating on snow.
- Closed to motorized travel.

NOTE: Within any of these options, selected closures for resource protection under 36 CFR 261 can be implemented.

The Grand Mesa National Forest was divided into 18 distinct areas to make this analysis easier to follow. (See Map Figure 2, page 5.) The impacts of each area-wide travel management option on different environmental elements and specifically on each planning area are evaluated in the **IV. Environmental Consequences** section on pages 38 - 59.

Second Level Decision

To meet the needs of providing a variety of recreational experiences and/or support resource management, without adversely impacting the environment, some travel routes will be designated for specific uses. The **second level of decision will identify which uses will be allowed on specific roads and trails**. Options at this decision level include:

- Highway - paved. Open to licensed vehicles only.
- Primary Forest Road - graveled, suitable for passenger car. Open to licensed vehicles only (cars and trucks), unless specifically designated as open to unlicensed vehicles (ATVs and dirt bikes).
- Low Standard Forest Road - native surface, suitable for high clearance and/or 4WD vehicles. Open to licensed (trucks and 4WD full sized vehicles) and unlicensed vehicles (ATVs and dirt bikes).

- Primitive Forest Road - native surface, recommended for 4WD vehicles (some high clearance). Open to licensed and unlicensed vehicles.
- Motorized Trail - open to trail vehicles less than 48 inches wide.
- Single Track Trail - open to motorcycles, closed to ATVs.
- Non-motorized Trail - open to hikers, horses and mountain bikes.
- Non-motorized Trail - open to hikers and horses, only.
- Non-motorized Trail - open to hikers, only.
- Snowmobile Trail.
- Cross-country Ski Trail - closed to snowmobiles.
- Closed road/trail. Access restricted to commercial and/or administrative uses. No public access.
- Obliterated road/trail. Surface rehabilitated (i.e. ripped, seeded, recontoured) to eliminate road/trail. Public use discouraged.

Tables 1, 2, 3 and 4 list roads and trails on which specific travel management decisions will be made for Alternatives 1 through 4, respectively. Tables 8, 9 and 10 (pages 60 - 62) compare the four alternatives and identify the environmental effects of travel management options that could reasonably be applied to each given road or trail.

C. Proposed Action

The Forest Service proposes to revise the existing Travel Management Plan for the Grand Mesa National Forest, to bring it into compliance with Forest Plan direction (see discussion in III. Alternatives, A. Management Requirements) and to address the current and anticipated travel demands on the Forest. A new travel management map will be prepared, updating road and trail locations and depicting travel regulations. Travel management will be implemented through distribution of the new map (to be available in Summer 1995), user information on roads and at trailheads, and through other public contact. Networks and loop routes designed for the variety of Forest users will be created and identified, to enhance the recreational experience available on the Grand Mesa National Forest. Specific details of the proposed action are included under Alternative 3 in the III. Alternatives section.

The proposed action is not "connected" to or dependent upon any other action in this same area.

II. Issues

A. Scoping and Early Public Involvement

In 1991, the Forest Service proposed a revision of the 1984 Travel Management Plan. A Decision Notice was signed May 21, 1991, by then Forest Supervisor R. E. Greffenius, to place into effect the 1991 Travel Management Plan Revision for the Grand Mesa National Forest. The decision was appealed, and after several attempts to find a resolution, the decision was withdrawn in September of 1991 by Forest

Grand Mesa Travel Management Plan EA

Supervisor Robert L. Storch. Mr. Storch noted that the 1991 decision failed to address all forms of travel, particularly winter travel (i.e. cross-country skiing and snowmobiling) and mountain bike use; and that a broader range of people and organizations needed to have an opportunity for input into the travel plan revision.

A working group of nine people, made up of a cross-section of Forest users and interests, was formed to develop a recommendation for a travel management plan for the Grand Mesa. The Grand Mesa Travel Management Working Group (TMWG) was made up of the following individuals who served as the primary representatives of their respective user group/interest:

| | |
|---------------|---|
| John Martin | Motorized Recreation |
| Jack Lowe | Outfitters and Guides |
| John Trammell | Trout Unlimited |
| Scott Kenton | Western Colorado Congress (WCC) |
| Charles Lutje | Water Users |
| Bud Burgess | Grazing Permittees |
| Glen Hinshaw | Colorado Division of Wildlife |
| Ray Ring | Lodge Owners & Grand Mesa Resort Company |
| Len Brooks | USFS District Ranger Grand Junction District |
| Gene Grossman | USFS District Ranger Collbran Ranger District |

In addition, two alternates were named for each group to fill in for the primary member in their absence. Bill Carlquist, Delta County School Administrator, voluntarily facilitated the meetings.

The TMWG held its first meeting January 15, 1992, and continued with two meetings per month through September of 1992.

The Forest Service invited the public to attend the TMWG meetings and provided a summary of the previous meeting minutes through news releases prior to each meeting. All interested publics were mailed the minutes of each of the TMWG meetings (a mailing list of approximately 250). In addition to the Forest Service receiving written comments, each TMWG member was available to bring citizens' concerns or issues to the table for discussion.

The TMWG concluded its work in January, 1993. Its recommendations have been incorporated into Alternative 3, the preferred alternative. A summary of the consensus/decisions/recommendations by the TMWG is found in Appendix A. Minutes of each TMWG meeting are on file at the Supervisor's Office.

The TMWG reviewed the 1991 Plan and identified some points they all agreed with and would use as guidelines or sideboards for developing recommendations. These were:

1. The Forest Service must make decisions with the best data currently available (i.e. no delay for better data).
2. Preventing resource damage is a guiding principle.
3. Adhere to existing Forest Service standards on all travel ways.
4. Access to dams by water users shall be on designated routes.
5. Travel on dams to be managed to protect dam owners' interests.
6. Forest Service to monitor public comment during summer and hunting seasons.
7. Trails destined to be closed and replaced shall be closed as the new ones are opened.

8. Temporary trail closures should have a target date set to fix damage.
9. Centralize trailheads and add trailhead facilities (i.e. parking, signing, toilets).
10. Acquire rights-of-way for public access outside National Forest boundary.

The TMWG also identified points they did not agree on or were in disagreement with the 1991 Plan. These were the areas the TMWG focused their attention on. The group reached consensus on most points and their recommendations have been incorporated into the preferred alternative. The points where consensus was not reached are included below.

Scoping continued during the 1992 fall hunting season when news articles relating to work on a travel plan revision and a proposal specific to the hunting season were included in the special hunting issues of local newspapers. In addition, a flier encouraging input from hunters was distributed at businesses where hunting licenses were sold. Over 300 responses were received from local, in-state and out-of-state citizens. They primarily commented on a proposal to permit retrieval of down game by ATVs off roads and trails during specific time periods (as used on the Rio Grande National Forest). The flier also asked respondents if they wanted to be placed on the mailing list for future information related to the revision of the Grand Mesa Travel Plan.

Meetings were held with various motorized user groups to gather input on desired road and trail networks. (Meeting minutes and maps developed are in project files in the Supervisor's Office.) This information was used in developing alternatives analyzed in this document.

B. Later Public Involvement

On September 3, 1993, a draft Environmental Assessment for the Grand Mesa National Forest Travel Management Plan Revision was released for public comment. A sixty (60) day comment period was required by 36 CFR 295.3 for public participation in any process of "allowing, restricting or prohibiting use of areas and trails to one or more specific vehicle types off forest development roads". The comment period extended to November 8, 1993.

Five open houses were held in Delta, Grand Junction, Mesa, Denver and Cedaredge, on September 14, 15, 23, October 6 and 14, respectively. Forest Service representatives were available at each open house to discuss the information presented in the EA with interested citizens. In addition, Forest Service personnel met with various user groups during the comment period, to discuss particular uses and how they could be affected by the travel management proposal. (See project files in Supervisor's Office for a list of public and group meetings conducted to discuss the Travel Management Plan.)

About 1500 comment letters and 827 petition signatures were received during this comment period. Letters were analyzed to identify issues. (See Appendix B for summary of comment analysis and response to comments.)

A fourth alternative proposal was received from the Thunder Mountain Wheelers, an off-highway vehicle user organization. This alternative has been included as one of the alternatives evaluated in this EA.

C. Significant Environmental Issues

The following significant environmental issues were identified through the efforts described above:

Watershed Issues

- Off-route travel can alter soils, vegetation and water quality.

Wildlife-Fish-Native Plant Issues

- Human activity impacts wildlife, fisheries, native plants and habitat.

Livestock Issues

- Livestock distribution and forage utilization may be affected by changes in travel regulations.
- Grazing permittees' access may be affected by changes in travel regulations.

Recreation Issues

- The Grand Mesa National Scenic Byway may be affected by changes in travel regulations.
- The range of recreation opportunities and experiences will be affected by changes in travel regulations.
- Hunting and fishing experiences will be affected by changes in travel regulations.
- Winter recreation opportunities (i.e. snowmobiling and cross-country skiing) will be affected by changes in travel regulations.
- Loops and connected routes are important in providing a range of recreation opportunities.
- The opportunities for game retrieval using motorized vehicles may be limited.

Accessibility Issues

- A restrictive travel management plan will effect people with disabilities, people that are mobility impaired, and an aging population.

Road and Trail Issues

- Unlicensed vehicles on graveled roads is a safety and liability concern.
- Road or trail closures may be affected by Revised Statute 2477.
- Concentrating travel on designated routes will affect maintenance needs and costs.

Management/Administration Issues

- Mapping, signing and user information are not adequate.
- There is concern about compliance with and enforcement of travel regulations.
- Contractors and permitted users access may be affected and special authorization/permits may be required.

Socioeconomic Issues

- Travel management on the Forest may effect local economies.
- The Forest Service cannot afford to implement a change in travel management.

III. Alternatives

A. Management Requirements

Travel management on the Grand Mesa National Forest must be consistent with the overall management direction provided within the 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 (NFMA, P.L. 94-588). The Record of Decision for the Forest Plan describes a set of goals and activities for recreation, vegetation management and visual management on the Grand Mesa National Forest. Actions necessary to achieve these goals and activities, such as this proposed action, are authorized by the Forest Plan.

Forest Plan goals which affect travel management include:

- Manage vegetation in an ecologically sound and economically efficient manner to provide and maintain a healthy, vigorous ecosystem capable of providing a range of multiple-use outputs and conditions; i.e., outdoor recreation, fish and wildlife habitat, livestock grazing, visual quality, water, wood fiber, research, cultural opportunities and economic benefits to society.
- Meet demand for dispersed recreation outside Wilderness.
- Increase or improve wildlife habitat diversity.
- Manage surface uses to maintain water quality above Federal, State and local standards.
- Protect the water quality in streams, lakes, riparian areas and other water bodies.
- Integrate mineral exploration and development within the National Forest System with the use and protection of other resource values.
- Provide the opportunity for economic growth of industries and communities dependent upon Forest outputs, including tourism.
- Acquire rights-of-way needed to support management of National Forest System resources.
- Conserve soil resource.
- Maintain long-term land productivity.
- Improve cost effectiveness and efficiency of road management.

Grand Mesa Travel Management Plan EA

- Coordinate transportation facilities to meet both public needs and Forest management needs.
- Provide a safe, efficient and environmentally sound transportation system.
- Implement an effective travel management program.

These goals are listed in the Forest Plan, Chapter III, pages III-2 through III-4.

In addition, the Forest Plan also provides general direction and standards and guidelines for specific management activities; both for the Forest as a whole, and for each management prescription area (see Forest Plan pages III-9a through III-202).

The Recreation Appendix to the Forest Plan (Appendix S) identifies the importance of managing transportation systems effectively - in terms of standards, location, maintenance and closures - in order to maximize their contribution to recreation. The Forest Service needs to manage for environmental and social conditions, settings and opportunities, rather than specific activities that may or may not be popular or desired in the future. This type of recreation management ensures that natural settings will continue to be available for future types and demands of recreation activities.

The Recreation Strategy for the Grand Mesa, Uncompahgre and Gunnison National Forest identifies management emphases which includes: provide for motorized and non-motorized recreational activities, assist local communities and businesses in marketing the year-round recreational opportunities available, evaluate the potential for a trails system that would furnish all phases of accessibility levels, market for partners to help maintain and develop recreational facilities, utilize interpretation as a management tool to inform the public of appropriate uses, ethics and interaction with other users.

The authority to allow, restrict, or prohibit off-road vehicle use is provided in Executive Order 11644, as amended by Executive Order 11989, and Title 36 Code of Federal Regulations, Parts 261, 293 and 295. Direction for off-road travel management is found in Forest Service Manual 2350, and in Forest Plan Direction, page III - 76 of the Forest Plan.

Title 36 Code of Federal Regulations, Part 295.6 requires Forest Supervisors to annually review off-road vehicle management plans and if revision is needed, the public will be given the opportunity to participate in the review. The 30 day review of this environmental assessment and the proposed action is one means of providing that participation.

B. Actions Common to All Alternatives

- All trails, system and nonsystem, are open to hiking, horseback riding and mountain biking, except where specifically designated hiker only. In addition, all roads are open to mountain bikers. Roads are also open to hikers and horseback riders, but are generally not preferred routes by those users.
- Existing routes may need to be closed due to resource damage or concerns. Resolution by repairing, relocation, reconstruction, seasonal closure, or more intense maintenance or law enforcement would be pursued as solutions to correct problems before closing any system routes. Generally, needed road closures would be done using gates or signs, rather than by physically closing the road. Assistance from user groups, volunteers and concerned citizens to rehabilitate problem areas will be welcomed and encouraged.

- Acquisition of key trail rights-of-way will be pursued to enhance public access, particularly those areas landlocked by private land.
- The entire Kannah Creek and Whitewater basins, and Indian Point (beginning at Flowing Park Reservoir) would continue to be managed for non-motorized uses only (37,100 acres).
- The Alkali/Kannah Creek/Whitewater Basin area, and most of the Mud Hill/Road Gulch/Hightower area will be closed to motorized use in the winter, to protect big game on winter ranges. Closure dates are dependent on snow, presence of large concentrations of animals, etc. (Average closure dates are from November 15 to May 1.)
- The Grand Mesa Scenic and Historic Byway crosses the Forest, consisting of State Highway 65 (34 miles on National Forest System land) and 13 miles of the Lands End Road (Forest Development Road No. 100) from Hwy 65 to the Lands End Observatory. This byway is managed for passenger car travel and is the primary access route to and through the Forest.
- The Crag Crest National Recreation Trail consists of a 10 mile loop trail. The 6.5 mile crest portion follows Crag Crest and is for hikers only. The 3.5 mile loop portion is designated for all non-motorized traffic.
- Approximately 163 miles (117 miles groomed) of snowmobile trails are marked/signed and mapped with coordination and cooperation between snowmobile organizations and the Forest Service.
- Three cross-country ski areas (Skyline, County Line and Ward) located along Hwy 65 provide approximately 50 kilometers (31 miles) of marked, groomed and ungroomed trails. These areas have been maintained in cooperation with the Grand Mesa Nordic Council. The Ward area also provides backcountry cross-country skiing opportunities. One snowmobile route is permitted in the Ward backcountry area to access Sheep Reservoir area to the east. For safety reasons, a separate cross-country ski trail will be marked to discourage joint use of the snowmobile route.
- The American Discovery Trail, when complete, will run from California to Delaware. Ultimately this trail will traverse the Grand Mesa from Lands End on the west to Owens Creek on the east, along existing routes. The National Park Service is working on the preliminary planning for this trail, with a final study due to be released in 1995.
- Mitigation and monitoring measures described on pages 36 - 38 are also common to all alternatives.

C. Actions Common To Alternatives 2, 3 and 4

- Identified unsurfaced, low standard or primitive roads would be classified as "Authorized Open Roads", in accordance with the State of Colorado's off-highway vehicle law, making it legal to ride an unlicensed vehicle, such as an ATV or dirt bike, on these roads. In addition, the roads would serve as linkages to trails open to motorized trail vehicles and be part of the available trail network. These routes would be included on the State OHV map and funds collected from OHV registration fees could be available to help maintain these routes.

- "Loop" routes would be employed as an important element of new route design.
- Additional environmental analysis will be conducted (according to NEPA) prior to construction of any proposed new trails.
- The Forest Service issues permits for water structures such as dams and ditches and livestock operations. Access for permitted activities is independent of general public access. The individuals or groups having special permits are allowed to conduct their business on National Forest System Lands according to the permit language. Permittees cannot be denied access to their permitted area; however, the Forest Service can restrict or control when or how access is achieved. Special travel authorization would be granted based upon written requests by a facility owner and/or Forest permittee. There would be no fees for travel authorizations. Written requests would be required by the FY 95 field season. Individuals making the request would be required to carry Forest approval while in the travel restricted areas. The request must identify proposed access routes and dates access is needed. The request must also identify individuals having authority (i.e. water tenders/commissioners, workers employed by the permittee, etc.) and responsibility to administer a permit on the ground. Each request is reviewed for adherence to the permit, approved or modified to meet the Forest objectives, then returned to the individuals. Travel authorizations would be approved by the District Ranger and Forest Supervisor and would be processed within 90 days upon receipt. The permittee has the option to issue individual access identification cards or use the approved request to indicate to the public and Forest administrative personnel that they are permitted to travel in restricted or prohibited travel areas. It is the responsibility of all permittees to follow the terms of their permit and take necessary steps to assure they are in compliance with the Forest guidelines.
- Access routes available to permittees but closed to general public motorized use would be signed according to Forest Service guidelines or policy. Typical sign wording would state "Administrative Traffic Only" or "Access by Permit Only".
- Any Federal, State or local official, or member of a rescue organization or fire fighting organization in the performance of an official duty would be exempt from travel restrictions or closures.
- Proposed road and trail closures should not be affected by Revised Statute 2477 (RS 2477). Only those roads established prior to the reservation of the lands for National Forest purposes can qualify as public roads under RS 2477. The purpose of RS 2477 was to grant rights-of-way over public lands if the road or highway predated the reservation of public lands. The revised statute has its origin in the 1866 Mining Law, which states, "The right-of-way for the construction of highways over public lands not reserved for public uses is hereby granted."

NOTE: The authority of the RS 2477 vests with the individual counties in which the roads are located. A county agency must declare a road as a public road and assumes jurisdiction and maintenance for the road proclaimed. It is the responsibility of the proclaiming county agency to prove through historical records that a road predates the reserved public lands and is currently not utilized by a Federal agency such as the Forest Service.

At this time no county agency or county Board of Commissioners within the project area have declared a public road and used the rights of the RS 2477. This is due partly to the fact most of the historic primary corridor routes, such as the Old Grand Mesa Road, are already public roads.

Forest Development Roads (FDRs) are for the protection, administration and utilization of the National Forest. FDRs are not public roads like State and county roads or highways for public transportation of goods, people and materials. Unlike public roads and highways, FDRs can be closed for the best interest of the National Forest.

- Accessible facilities will be provided through reconstruction/relocation of existing features and in any proposed new projects. (NOTE: Ongoing capital investment projects not directly related to travel management will compliment this action.)

D. Alternatives Eliminated from Consideration

Five alternative ways of meeting the purpose and need for action and one alternative of taking No Action in this project area were developed and considered in the environmental analysis process. Two of the action alternatives (as opposed to the No Action Alternative) were investigated, but eliminated from further consideration in the environmental analysis.

The option of eliminating all measures or management requirements to mitigate the impacts of off-road travel was not considered in detail. This option would mean no travel restrictions, or open travel on and off roads and trails, Forest-wide. This alternative was not considered in detail because it conflicts with goals of the Forest Plan. This alternative does not adequately deal with current resource needs or the increasing use by all types of users; nor would this alternative meet the purpose and need described in Chapter I.

The alternative originally proposed as the preferred alternative in the Environmental Assessment released for public review in September, 1993 was considered and analyzed in detail. Originally this proposal included the construction of 44 miles of new motorized trail that would provide linkages between existing motorized trails and keep motorized trail vehicles off gravel surfaced roads. The economic analysis showed the construction costs to be prohibitive (approximately \$660,000) and 40 miles of proposed new construction have been eliminated from the current proposal.

E. Alternatives Considered and Analyzed in Detail

Four alternatives (including the alternative of taking No Action) were studied in detail and are presented here for consideration in the decision process. **IT IS IMPORTANT TO KEEP IN MIND THE TWO LEVELS OF DECISIONS TO BE MADE THROUGH THIS ANALYSIS. SEE CHAPTER I, PAGE 6 FOR A DESCRIPTION OF THESE LEVELS.**

Eighteen distinct areas have been delineated on the Grand Mesa National Forest to aid in analyzing environmental effects of alternatives and making decisions at the first level. Areas were established based on particular features affecting travel management consideration, such as: existing and expected uses, soil and water resource concerns and wildlife habitats affected. Area boundaries follow roads, trails or natural land breaks wherever possible. These planning areas are shown in Figure 2, page 5. Detailed descriptions of these areas are included in Appendix D. These "areas" are specifically referred to in the description of alternatives to follow.

The specific roads and trails where alternative decisions are being considered (the second level of decision) are referred to in the tables included in each alternative description and are shown on alternative maps in Appendix C.

Alternative 1 (No Action)

National Environment Policy Act procedural regulations require the Forest Service to study the No Action alternative in detail, as a baseline for comparing the effects of other alternatives (40 CFR 1502.14(d), and Forest Service Handbook 1909.15, 23.1).

The No Action Alternative would be a continuation of the current Travel Management Plan, which has been in effect since 1984. The current Travel Management Plan is depicted on the Travel Map for the Grand Mesa National Forest, with additional modifications listed in the Travel Availability Guide (updated three times a year) to reflect changing seasons, local on-the-ground conditions and resource needs. (See also Alternative 1 Map Figure 3). The current level of trail maintenance, signing and development would continue within annual budget constraints.

Area-Wide Management Options

Four of the five area-wide travel management options are employed in the No Action alternative. Table 1 summarizes the travel management options available in each planning area.

Presently, about 10% (34,500 acres) of the acres are closed to all forms of motorized access. This includes most of the Alkali/Kannah Creek/Whitewater Basin planning area, most of the Mesa Lakes (West Bench Trail) planning area and a portion of the Coon/Bull/Cottonwood area, north of Twin Basin Reservoir (special closure identified on Travel Availability Guide - published quarterly to supplement the Grand Mesa National Forest Travel Map).

About 41% (144,000 acres) of the Grand Mesa National Forest is open to motorized travel on designated routes only. This includes all or parts of the following planning areas: Battlements, Willow Creek/Plateau, Flat Tbps, Upper Leon, Leroux Creek to Marcott Creek Rd. and Highway 65 to Alkali Basin.

The remaining 49% (173,200 acres) is open to motorized travel (both full sized and trail vehicles) anywhere on or off system roads or trails, provided resource damage or unreasonable disturbance to the land, wildlife, or vegetative resources does not occur. Natural terrain features restrict off-road motorized activities in some areas designated as open (ex. Sunnyside portion of Battlements from Horse Thief Mountain to Kimball Creek). These restrictions apply to travel primarily during summer and fall seasons.

Winter travel management under the No Action Alternative allows snowmobiling over the majority of the Forest, with few exceptions. Snowmobiling is not allowed in areas closed year long to all motorized access (Alkali/Kannah Creek/Whitewater Basin, special closure in Coon/Bull/Cottonwood area). Winter closure areas to protect big game on winter range are listed under Actions Common to All Alternatives, above. Snowmobile travel is prohibited in the Mesa Lakes area (West Bench Trail) for public safety and to avoid conflict with the Powderhorn Ski area. Snowmobiling is allowed over snow in travel restricted areas (i.e. Flowing Park, Highway 65 corridor, Leroux Creek, Fruita Division).

Roads/Trails Options

Appendix E contains tables listing all system roads and trails on the Grand Mesa National Forest. These tables list the travel management option that will be applied to each road and trail by each alternative. Table 1 lists only those system roads and trails that have management changes proposed in one of the four alternatives. Table 6 (page 34) summarizes information from Appendix E, to compare the four alternatives.

Under the No Action Alternative there are approximately 349 miles of open system roads, 71 miles of closed system roads, 152 miles of system motorized trails and 104 miles of system non-motorized trails.

| Planning Area | Mgmt. Options | Low Standard Roads | No. | Length (miles) | Alt. 1 |
|--|----------------------|---------------------------|------------|-----------------------|---------------|
| Battlements | O, R | Flowing Park Spur 1E | 109.1E | 1.10 | O |
| | | Flowing Park Spur 2A | 109.2A | 0.80 | O |
| Mud Hill / Road Gulch / Hightower | R/S, O | Flowing Park Spur 2B | 109.2B | 1.50 | O |
| | | Flowing Park Spur 2C | 109.2C | 0.62 | O |
| | | Weir & Johnson Spur 1B | 126.1B | 1.32 | O |
| Porter | O | Hay Park Spur A | 129.1A | 0.50 | C |
| | | Ryan | 129.1G | 1.43 | C |
| Ruth Mountain | O | Prebble Reservoir | 129.1H | 0.25 | C |
| | | Eureka Reservoir #2 | 129.1I | 0.90 | C |
| | | Silver Lake | 256 | 0.80 | O |
| Willow Creek / Plateau | R, O | Primitive Roads | No. | Length (miles) | Alt. 1 |
| | | Pipeline | 110 | 3.10 | O |
| Flat Tops | R, O | Point Cow Camp | 112.2B | 0.80 | O |
| | | Pitcairn | 112.2C | 0.50 | O |
| Upper Leon | O, R | Atkinson Reservoir | 114 | 4.70 | O |
| | | Forest Lake Rd. | 124 | 0.40 | O |
| Leroux Creek to Marcott Creek | R | Colby Horsepark Reservoir | 127.2A | 0.50 | O |
| | | Mid-Griffith Lake | 249 | 0.90 | O |
| | | Forty Acre Lake Rd. | 256.1A | 0.40 | O |
| Marcott Creek to Hwy 65 | O | Horse Mtn. | 258.1C | 3.10 | O |
| | | Bureau Pipeline | 259 | 11.00 | O |
| Hwy 65 to Trickle Park | R, O | Cottonwood Cow Camp | 259.1A | 0.30 | O |
| | | Wagon Park | 263.1A | 1.50 | O |
| | | Colorado Ute Powerline | 264 | 7.40 | C |
| Hwy 65 to Alkali Basin | O | Powerline Spur A1 | 264.A1 | 0.50 | C |
| | | Powerline Spur A2 | 264.A2 | 0.90 | C |
| | | Powerline Spur A3 | 264.A3 | 1.70 | C |
| | | Powerline Spur A5 | 264.A5 | 3.40 | C |
| | | Buzzard Cow Camp | 265.2D | 0.70 | O |
| Lands End / Indian Point | O, R | Dry Owens Creek | 268.1A | 1.75 | O |
| | | Road Gulch | 270.1A | 1.00 | O |
| | | Labbe Res. | 279.13 | 3.10 | O |
| Alkali / Kannah Creek / Whitewater Basin | C, R/S | South Sheep Creek | 281.1A | 1.90 | O |
| | | Trails | No. | Length (miles) | Alt. 1 |
| Mesa Lakes | C, R/S | Lake-of-the-Woods | 506 | 5.90 | MT |
| Coon / Bull / Cottonwood | O, R, C | Lily Lakes | 509 | 0.50 | MT |
| | | Crum Reservoir | 511 | 3.40 | NM |
| | | Salt Creek | 514 | 3.20 | MT |
| | | Greenwood | 721 | 1.80 | MT |
| Horse Mountain / Bonham | O, R | Blue Grouse | 722 | 4.30 | MT |
| | | Bull and Brown 1A | 724.1A | 2.00 | MT |
| | | Bull and Brown 1B | 724.1B | 1.80 | MT |
| Sheep Flats / Young Lake | O | Point Camp | 725 | 3.00 | MT |
| | | Drop Off | 726 | 2.20 | MT |
| | | Cache Creek | 903 | 1.40 | MT |
| Fruita Division | R | Battlement Trail | 527 | 1.00 | MT |

O = Off-route travel by all motorized vehicles.
R/S = Motorized travel restricted to designated routes, including snowmobiles.
R = Motorized travel restricted to designated routes, not including snowmobiles.
C = Closed to motorized travel.

O = Open to motorized and non-motorized traffic.
C = Closed to motorized traffic, open to non-motorized traffic
MT = Motorized Trail, open to motorized trail vehicles and non-motorized traffic.
NM = Non-motorized Trail, open only to non-motorized traffic.
MO = Motorcycle Trail, open to motorcycles and non-motorized traffic.

In addition, there are approximately 327 miles of nonsystem trails (approximately 60 miles are to be rehabilitated).

Table 7 (page 35) also compares the four alternatives by identifying which transportation systems (miles of a given type of road/trail) are available to different user groups. Currently, unlicensed vehicles (ATVs and dirt bikes) are not allowed on any system roads. To become consistent with the State Off-Highway Vehicle law, unsurfaced low standard and primitive roads will be "authorized open" to unlicensed vehicles under this alternative.

Appendix F lists the lake and reservoir fisheries located on the Grand Mesa. Currently, 100 lakes/reservoirs can be accessed by motorized vehicles, either by road, trail or overland off-route travel. Four (4) lake fisheries are only accessible by non-motorized means.

Alternative 2 (1991 Travel Plan)

This alternative is designed to make off-road travel more compatible with other uses and resource values by identifying situations where conflicts occur and implementing management measures to alleviate conflicts or resource impacts.

Area-wide Management Options

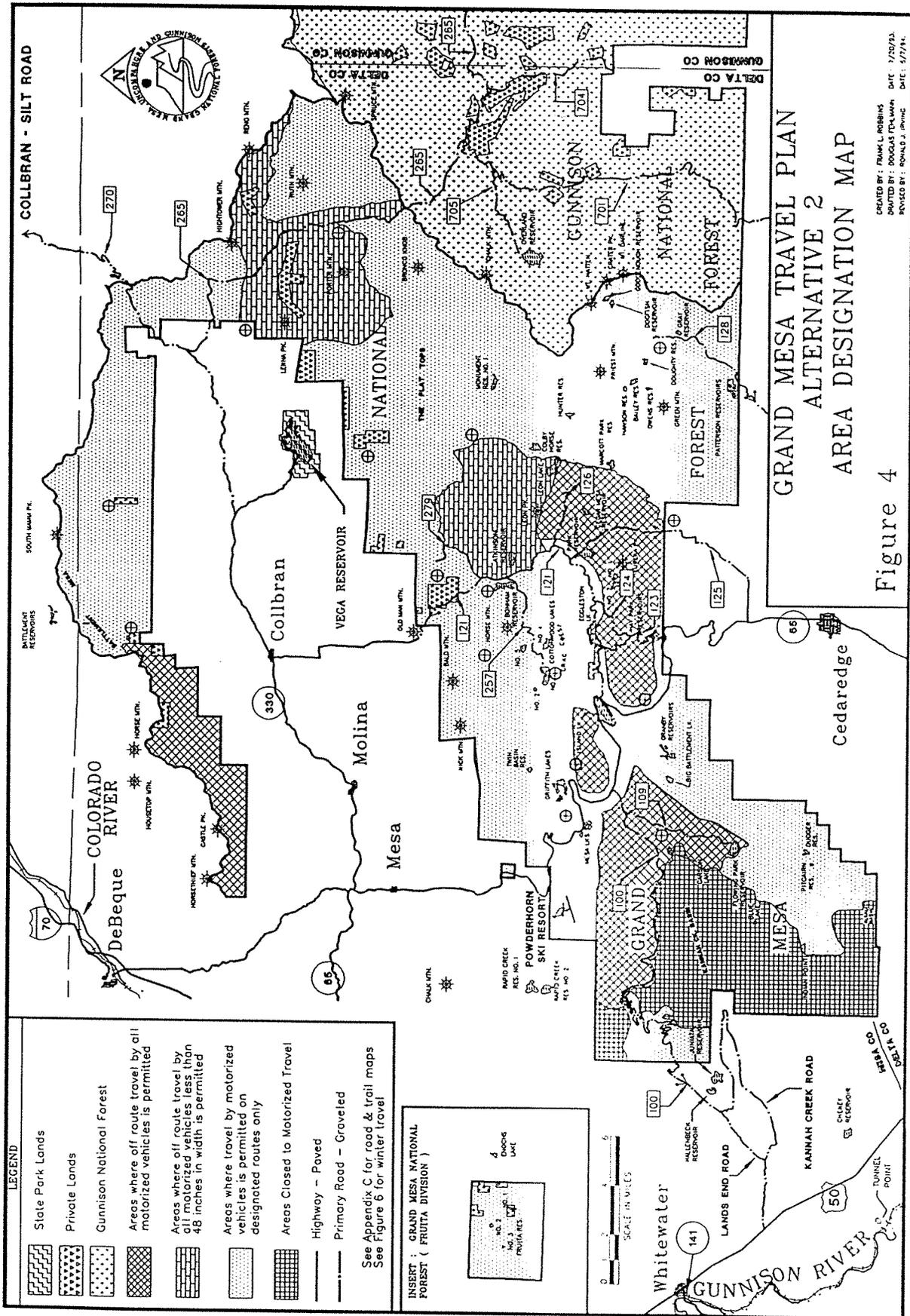
All five area-wide travel management options would be used in Alternative 2. Table 2, page 21, summarizes the travel management options available in each planning area for Alternative 2.

This alternative would classify about 11% (37,100 acres) of the Forest area as closed to all forms of motorized access. The Alkali/Kannah Creek/Whitewater Basin area and the majority of the Mesa Lakes (West Bench Trail) area would still be closed to all motorized access. There would no longer be a motorized closure in the Coon/Bull/Cottonwood planning area, but motorized travel would be restricted to designated trails. The Indian Point area would become closed to motorized access (except for snowmobiles after regular hunting seasons - approximately November 11) because there would be no trails designated for motorized travel. Non-motorized uses (including hiking, horseback riding and mountain bike riding) would be allowed in these areas.

Approximately 64% (227,800 acres) of the Grand Mesa National Forest would be open to motorized access only on designated routes. This would include current system roads and trails, as well as including some nonsystem routes which would be made part of the Forest transportation system. Restricted access would occur in all or parts of Battlements, Mud Hill/Road Gulch/Hightower, Ruth Mountain, Willow Creek/Plateau, Flat Tops, Upper Leon, Leroux Creek to Marcott Creek, Sheep Flats/Young Lake, Horse Mtn./Bonham, Coon/Bull/Cottonwood, Highway 65 to Trickle Park and Highway 65 to Alkali Basin.

The remaining 25% (86,800 acres) of the Forest would be open to motorized access both on and off designated roads or trails. Of the area open to off route travel, 35,200 acres would be open only for trail vehicles (less than 48" in width). This includes all or part of the Porter, Mud Hill/Road Gulch/Hightower, Ruth Mountain, Upper Leon and Sheep Flats/Young Lake planning areas. The 51,600 acres that would be open to off route travel by all vehicles are found in the Marcott Creek to Hwy 65 area, the Lands End portion of the Lands End/Indian Point area and the western half of the Battlements area.

As with the No Action Alternative, the travel management restrictions just listed apply primarily to spring, summer and fall travel. Winter travel regulations would be the same as described for Alternative 1.



GRAND MESA TRAVEL PLAN
 ALTERNATIVE 2
 AREA DESIGNATION MAP

Figure 4

| Planning Area | Mgmt. Options | Low Standard Roads | No. | Length (miles) | Alt. 2 |
|--|---------------|---------------------------|------------|-----------------------|---------------|
| Battlements | O, R | Flowing Park Spur 1E | 109.1E | 1.10 | O |
| | | Flowing Park Spur 2A | 109.2A | 0.80 | C |
| | | Flowing Park Spur 2B | 109.2B | 1.50 | C |
| Mud Hill / Road Gulch / Hightower | R/S, OT | Flowing Park Spur 2C | 109.2C | 0.62 | C |
| | | Weir & Johnson Spur 1B | 126.1B | 1.32 | C |
| | | Hay Park Spur A | 129.1A | 0.50 | MT |
| Porter | OT | Ryan | 129.1G | 1.43 | C |
| | | Prebble Reservoir | 129.1H | 0.25 | C |
| Ruth Mountain | R, OT | Eureka Reservoir #2 | 129.1I | 0.90 | C |
| | | Silver Lake | 256 | 0.80 | C |
| Willow Creek / Plateau | R | Primitive Roads | No. | Length (miles) | Alt. 2 |
| | | Pipeline | 110 | 3.10 | C |
| Flat Tbps | R | Point Cow Camp | 112.2B | 0.80 | C |
| | | Pitcairn | 112.2C | 0.50 | MT |
| Upper Leon | OT, R | Atkinson Reservoir | 114 | 4.70 | C |
| | | Forest Lake Rd. | 124 | 0.40 | C |
| Leroux Creek to Marcott Creek | R | Colby Horsepark Reservoir | 127.2A | 0.50 | C |
| | | Mid-Griffith Lake | 249 | 0.90 | O |
| | | Forty Acre Lake Rd. | 256.1A | 0.40 | C |
| Marcott Creek to Hwy 65 | O | Horse Mtn. | 258.1C | 3.10 | NM |
| | | Bureau Pipeline | 259 | 11.00 | MT |
| Hwy 65 to Trickle Park | R, O | Cottonwood Cow Camp | 259.1A | 0.30 | C |
| | | Wagon Park | 263.1A | 1.50 | O |
| | | Colorado Ute Powerline | 264 | 7.40 | MT |
| Hwy 65 to Alkali Basin | R | Powerline Spur A1 | 264.A1 | 0.50 | MT |
| | | Powerline Spur A2 | 264.A2 | 0.90 | MT |
| | | Powerline Spur A3 | 264.A3 | 1.70 | MT |
| Lands End / Indian Point | O, R | Powerline Spur A5 | 264.A5 | 3.40 | MT |
| | | Buzzard Cow Camp | 265.2D | 0.70 | C |
| | | Dry Owens Creek | 268.1A | 1.75 | O |
| Alkali / Kannah Creek / Whitewater Basin | C, R/S | Road Gulch | 270.1A | 1.00 | MT |
| | | Labbe Res. | 279.13 | 3.10 | C |
| | | South Sheep Creek | 281.1A | 1.90 | O |
| Mesa Lakes | C, R/S | Trails | No. | Length (miles) | Alt. 2 |
| | | Lake-of-the-Woods | 506 | 5.90 | NM |
| Coon / Bull / Cottonwood | R | Lily Lakes | 509 | 0.50 | NM |
| | | Crum Reservoir | 511 | 3.40 | MT |
| | | Salt Creek | 514 | 3.20 | NM |
| Horse Mountain / Bonham | R | Greenwood | 721 | 1.80 | NM |
| | | Blue Grouse | 722 | 4.30 | NM |
| | | Bull and Brown 1A | 724.1A | 2.00 | MT |
| Sheep Flats / Young Lake | R, OT | Bull and Brown 1B | 724.1B | 1.80 | NM |
| | | Point Camp | 725 | 3.00 | NM |
| | | Drop Off | 726 | 2.20 | NM |
| Fruita Division | R | Cache Creek | 903 | 1.40 | MT |
| | | Battlement Trail | 527 | 1.00 | MT |

O = Off-route travel by all motorized vehicles.
 OT = Off-route travel by motorized trail vehicles only.
 R/S = Motorized travel restricted to designated routes, including snowmobiles.
 R = Motorized travel restricted to designated routes, not including snowmobiles.
 C = Closed to motorized travel.

O = Open to motorized and non-motorized traffic.
 C = Closed to motorized traffic, open to non-motorized traffic.
 MT = Motorized Trail, open to motorized trail vehicles and non-motorized traffic.
 NM = Non-motorized Trail, open only to non-motorized traffic.
 MO = Motorcycle Trail, open to motorcycles and non-motorized traffic.

Road/Trails Options

Specific management options for all system roads and trails are listed in the tables in Appendix E. Table 2 lists only those system roads and trails that have management changes proposed in one of the four alternatives. Table 6 (page 34) summarizes this information for each alternative.

In Alternative 2 there would be approximately 311 miles of open system roads, 78 miles of closed system roads, 169 miles of system motorized trails and 127 miles of system non-motorized trails. Approximately 139 miles of nonsystem routes in areas where off-route motorized travel is allowed would still be available for this type of activity, provided resource damage does not occur.

The designated travel ways would be posted, signed on the ground and depicted on the Travel Map. Nonsystem routes would not be shown on official maps and would be signed only as necessary to prevent resource damage. A new, updated Travel Map would be prepared to clearly depict available travel systems and networks, as well as travel regulations. In addition, maps specific to user types (e.g. ATV, snowmobile, cross-country ski) will be developed in cooperation with user groups, to better highlight those trail systems.

The differences between this alternative and Alternative 1 include:

- closing approximately 5 miles of low standard roads,
- redesignating approximately 1 mile of low standard road to motorized trail to provide connections for loop trails,
- closing 14 miles of primitive road,
- redesignating 27 miles of primitive road (14 miles of closed road and 13 miles of open road) as motorized trail,
- redesignating 3 miles of primitive road as a non-motorized trail,
- redesignating approximately 23 miles of motorized trail to non-motorized trail,
- redesignating approximately 3 miles of non-motorized trail to motorized trail, and
- constructing 9 miles of new motorized trail to form connections for loop networks.
(NOTE: Any proposed new construction would require additional NEPA environmental analysis.)
- rehabilitate 139 miles of nonsystem routes to minimum standards to protect soil and water resources, as needed.

The miles of road and/or trail available for various user groups under Alternative 2 are listed in Table 7 (page 35).

In areas where motorized travel is restricted to designated routes only, nonsystem roads and trails not incorporated into the Forest transportation system would no longer be available for motorized travel. If resource damage has occurred or is occurring and natural healing will not occur fast enough, rehabilitation work (i.e. ripping and seeding) may be used.

The motorized trails that will be redesignated as non-motorized trails include:

Lake-of-the-Woods Trail No. 506. Access by foot would be emphasized to the four (4) high quality fishing lakes accessed by this trail. This trail was previously closed to motorized use with the Long Slough Environmental Assessment Decision Notice (1987) for soil and water resource protection and wildlife security, but the closure has not been enforced.

Lily Lakes No. 509. Short (0.5 miles) access from Cottonwood Lakes Campground to Lily Lakes to provide non-motorized access for a walk-in fishing experience.

Salt Creek Trail No. 514. Trail is located below Grand Mesa rim on steep grades. It runs to Forest boundary where no right-of-way exists to cross private land. Proposed

relocation of Silver Spruce Trail and existing motorized trails provide alternative motorized access into the area.

Blue Grouse Trail No. 722. This is a dead end trail with no right-of-way extending across private land. Located in an important elk security area, removing motorized traffic would lessen potential conflicts with wildlife (i.e. fragmenting security habitat) which could result in big game being displaced from the area and moving off the Forest.

Bull and Brown 1B No. 724.1B, Point Camp Trail No. 725 and Drop Off Trail No. 726. Removing motorized use from these trails will reduce soil and water resource impacts and protect wildlife security.

In areas where motorized travel is restricted to designated routes only, routes to and around reservoirs may be limited. Water users will continue to have access to all reservoirs, however they will be required to use specified access routes to each reservoir. Special travel authorizations would be granted to all water rights owners and dam inspectors to access areas closed to public motorized travel, provided:

- each individual's access would be limited to the specific area where private property is owned,
- such access would be for operation, maintenance and inspection only (not for general access),

Special travel authorizations will also be issued to other permittees which require motorized access to perform a permitted activity in an area closed to motorized access. These travel authorizations would be issued on a case by case basis.

Under this alternative, Eight (8) fisheries could only be accessed by non-motorized methods. (See Appendix F for a list of lake/reservoir fisheries on Grand Mesa.) Ninety-six (96) lake/reservoir fisheries will continue to be accessible by motorized access via system routes or cross country travel.

Alternative 3 (Preferred Alternative)

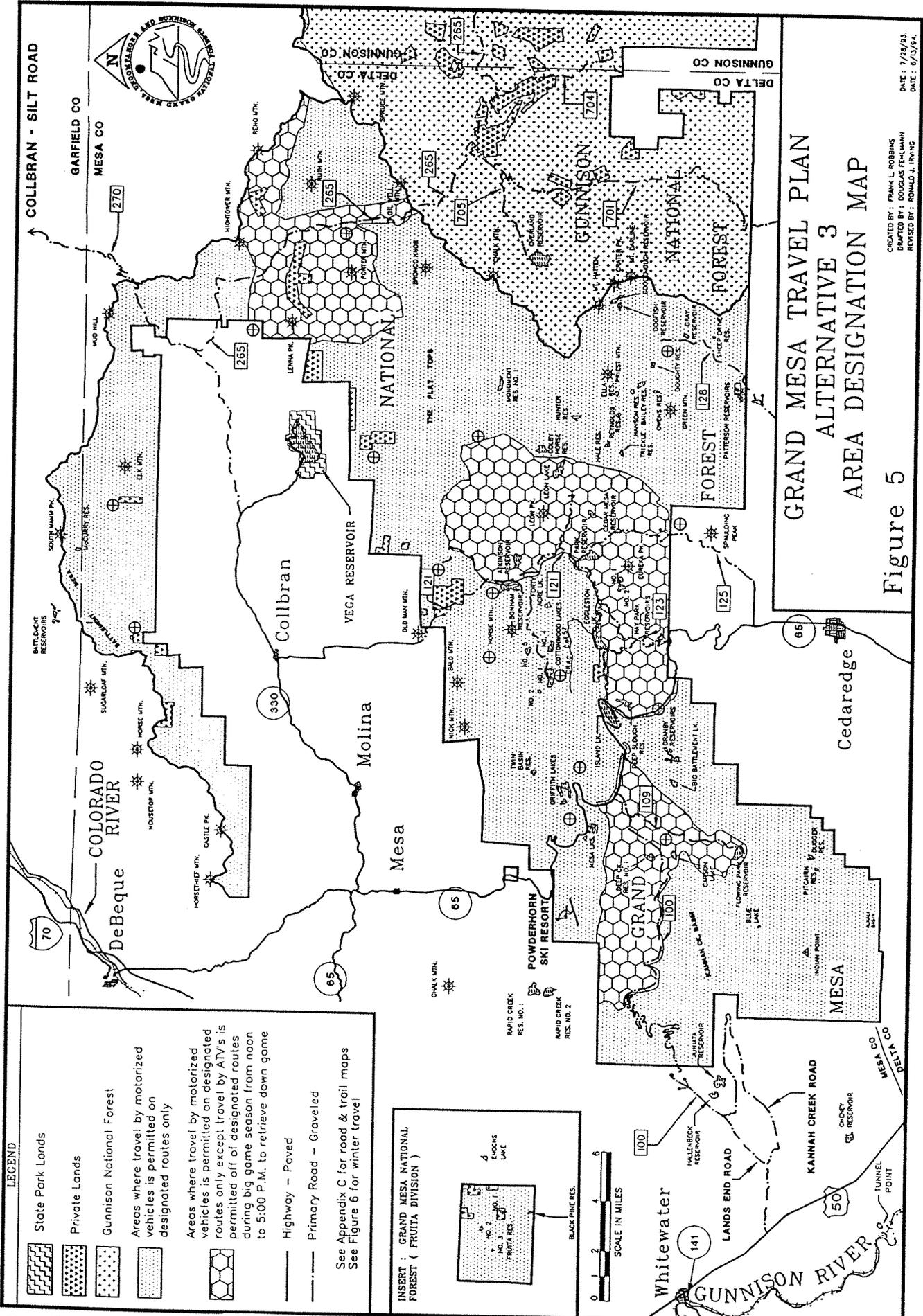
This alternative utilizes some of the recommendations of the Grand Mesa Travel Management Working Group (TMWG); responds to issues raised in the appeal of the 1991 Plan (i.e. Alternative 2) and addresses other issues raised during the scoping process.

Area-wide Management Options

Four area-wide travel management options would be used under this alternative. Table 3 summarizes the travel management options available in each planning area for Alternative 3.

Under this alternative, motorized travel would be allowed only on designated roads and trails for 100% of the Grand Mesa (351,700 acres), with two seasonal exceptions. (Non-motorized travel [hiking, horseback riding, mountain biking] would be allowed anywhere, however users would be encouraged to remain on established routes.) As with Alternative 2, 11% (37,100 acres) of the Forest would be closed to all motorized access in the Alkali/Kannah Creek/Whitewater Basin planning area and in the Indian Point area. There would no longer be a motorized closure in the Coon/Bull/Cottonwood planning area, but motorized travel would be restricted to a designated trail. Elsewhere on the Forest travel by motorized vehicles would not be permitted off designated roads and trails, with the exceptions of snowmobiles traveling over snow and off-route travel by motorized trail vehicles to retrieve downed game during hunting seasons in select areas (see below).

Winter travel regulations under Alternative 3 would allow snowmobile use on most of the Grand Mesa National Forest. Restrictions on snowmobile use would include:



GRAND MESA TRAVEL PLAN
ALTERNATIVE 3
AREA DESIGNATION MAP

CREATED BY: FRANK L. ROBBINS
DRAFTED BY: DOUGLAS FECKLANN
REVISED BY: RONALD J. IRVING
DATE: 7/28/03
DATE: 6/13/04

Figure 5

LEGEND

- State Park Lands
- Private Lands
- Gunnison National Forest
- Areas where travel by motorized vehicles is permitted on designated routes only
- Areas where travel by motorized vehicles is permitted on designated routes only except travel by ATVs is permitted off of designated routes during big game season from noon to 5:00 P.M. to retrieve down game
- Highway - Paved
- Primary Road - Graveled

See Appendix C for road & trail maps
See Figure 6 for winter travel

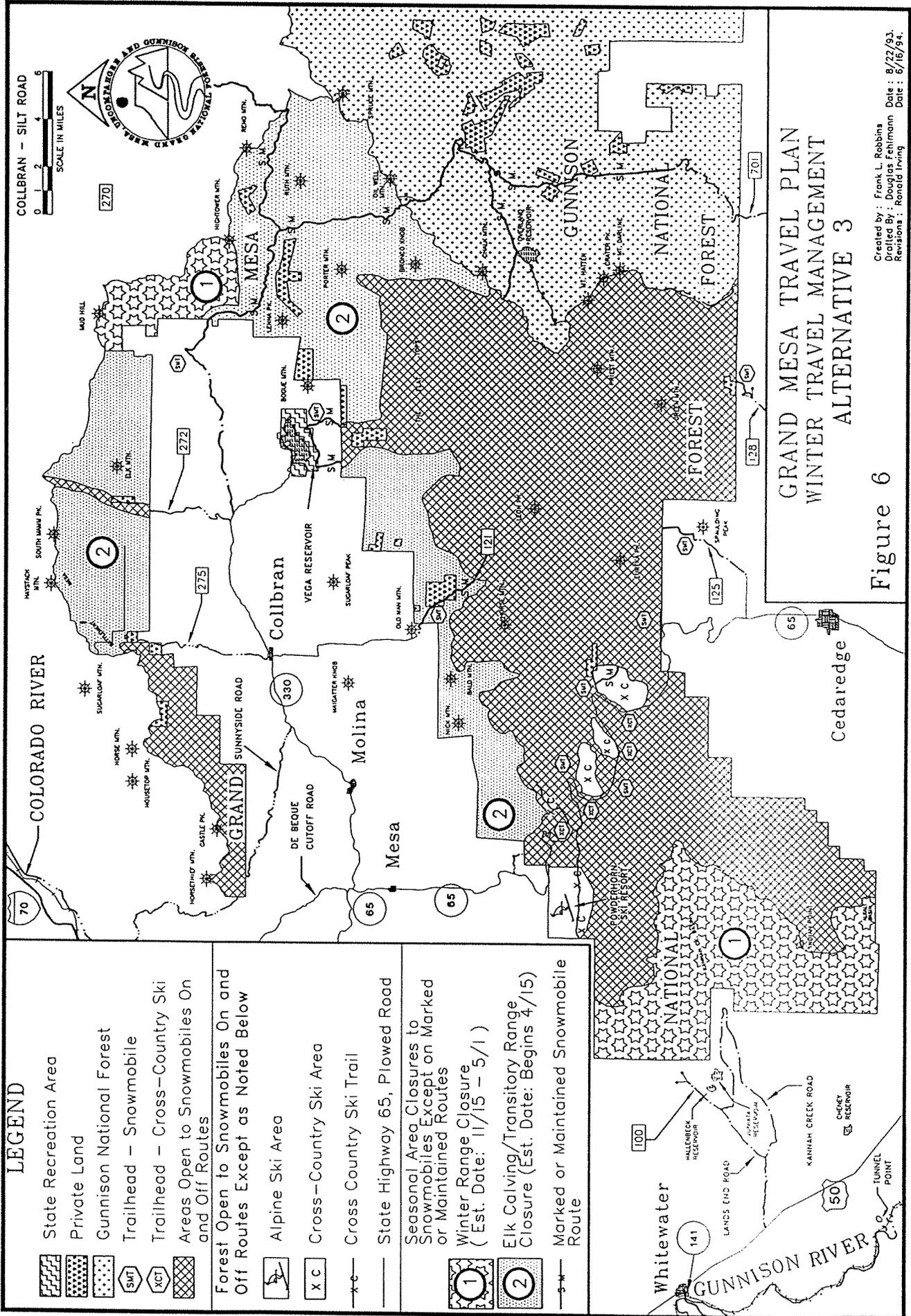
INSERT: GRAND MESA NATIONAL FOREST (FRUITA DIVISION)

1. FRUITA RES.
2. BLACK PINE RES.
3. CHERRY RES.
4. CHERRY LAKE

| Planning Area | Mgmt. Options | Low Standard Roads | No. | Length (miles) | Alt.3 |
|--|---------------|---------------------------|------------|-----------------------|--------------|
| Battlements | R | Flowing Park Spur 1E | 109.1E | 1.10 | C |
| | | Flowing Park Spur 2A | 109.2A | 0.80 | O |
| Mud Hill / Road Gulch / Hightower | R/S, OT* | Flowing Park Spur 2B | 109.2B | 1.50 | C |
| | | Flowing Park Spur 2C | 109.2C | 0.62 | C |
| | | Weir & Johnson Spur 1B | 126.1B | 1.32 | C |
| Porter | R, OT* | Hay Park Spur A | 129.1A | 0.50 | MT |
| | | Ryan | 129.1G | 1.43 | MT |
| Ruth Mountain | R, OT* | Prebble Reservoir | 129.1H | 0.25 | MT |
| | | Eureka Reservoir #2 | 129.1I | 0.90 | MT |
| | | Silver Lake | 256 | 0.80 | O |
| Willow Creek / Plateau | R | Primitive Roads | No. | Length (miles) | Alt.3 |
| | | Pipeline | 110 | 3.10 | C |
| Flat Tops | R | Point Cow Camp | 112.2B | 0.80 | O |
| | | Pitcairn | 112.2C | 0.50 | O |
| Upper Leon | R, OT* | Atkinson Reservoir | 114 | 4.70 | O |
| | | Forest Lake Rd. | 124 | 0.40 | C |
| Leroux Creek to Marcott Creek | R | Colby Horsepark Reservoir | 127.2A | 0.50 | C |
| | | Mid-Griffith Lake | 249 | 0.90 | C |
| | | Forty Acre Lake Rd. | 256.1A | 0.40 | O |
| Marcott Creek to Hwy 65 | R, OT* | Horse Mtn. | 258.1C | 3.10 | MT |
| | | Bureau Pipeline | 259 | 11.00 | O |
| Hwy 65 to Trickle Park | R, OT* | Cottonwood Cow Camp | 259.1A | 0.30 | MT |
| | | Wagon Park | 263.1A | 1.50 | MT |
| | | Colorado Ute Powerline | 264 | 7.40 | MT |
| Hwy 65 to Alkali Basin | R | Powerline Spur A1 | 264.A1 | 0.50 | MT |
| | | Powerline Spur A2 | 264.A2 | 0.90 | MT |
| | | Powerline Spur A3 | 264.A3 | 1.70 | MT |
| | | Powerline Spur A5 | 264.A5 | 3.40 | MT |
| Lands End / Indian Point | R, OT* | Buzzard Cow Camp | 265.2D | 0.70 | O |
| | | Dry Owens Creek | 268.1A | 1.75 | MT |
| | | Road Gulch | 270.1A | 1.00 | MT |
| Alkali / Kannah Creek / Whitewater Basin | C, R/S | Labbe Res. | 279.13 | 3.10 | C |
| | | South Sheep Creek | 281.1A | 1.90 | MT |
| | | Trails | No. | Length (miles) | Alt.3 |
| Mesa Lakes | C, R/S | Lake-of-the-Woods | 506 | 5.90 | NM |
| | | Lily Lakes | 509 | 0.50 | NM |
| Coon / Bull / Cottonwood | R | Crum Reservoir | 511 | 3.40 | MT |
| | | Salt Creek | 514 | 3.20 | NM |
| | | Greenwood | 721 | 1.80 | MT |
| Horse Mountain / Bonham | R | Blue Grouse | 722 | 4.30 | NM |
| | | Bull and Brown 1A | 724.1A | 2.00 | NM |
| | | Bull and Brown 1B | 724.1B | 1.80 | MT |
| Sheep Flats / Young Lake | R, OT* | Point Camp | 725 | 3.00 | MO |
| | | Drop Off | 726 | 2.20 | MO |
| | | Cache Creek | 903 | 1.40 | NM |
| Fruita Division | R | Battlement Trail | 527 | 1.00 | NM |

O = Off-route travel by all motorized vehicles.
 OT* = Off-route travel by motorized trail vehicles only for downed game retrieval during hunting seasons.
 R/S = Motorized travel restricted to designated routes, including snowmobiles.
 R = Motorized travel restricted to designated routes, not including snowmobiles.
 C = Closed to motorized travel.

O = Open to motorized and non-motorized traffic.
 C = Closed to motorized traffic, open to non-motorized traffic.
 MT = Motorized Trail, open to motorized trail vehicles and non-motorized traffic.
 NM = Non-motorized Trail, open only to non-motorized traffic.
 MO = Motorcycle Trail, open to motorcycles and non-motorized traffic.



GRAND MESA TRAVEL PLAN
WINTER TRAVEL MANAGEMENT
ALTERNATIVE 3

Figure 6

Created by : Frank L. Robbins
Drafted By : Douglas Fehrmann
Revisions : Ronald Irving
Date : 8/22/93.
Date : 6/16/94.

| LEGEND | |
|--------|---|
| | State Recreation Area |
| | Private Land |
| | Gunnison National Forest |
| | Trailhead - Snowmobile |
| | Trailhead - Cross-Country Ski |
| | Areas Open to Snowmobiles On and Off Routes |
| | Forest Open to Snowmobiles On and Off Routes Except as Noted Below |
| | Alpine Ski Area |
| | Cross-Country Ski Area |
| | Cross Country Ski Trail |
| | State Highway 65, Plowed Road |
| | Seasonal Area Closures to Snowmobiles Except on Marked or Maintained Routes |
| | Winter Range Closure (Est. Date: 11/15 - 5/1) |
| | Elk Calving/Transitory Range Closure (Est. Date: Begins 4/15) |
| | Marked or Maintained Snowmobile Route |

1. The Lands End portion of the Alkali/Kannah Creek/Whitewater Basin planning area and the Mud Hill/Road Gulch/Hightower planning area would be closed to protect big game on winter range. Closure dates are dependent on snow conditions, presence of animals, etc. Average closure dates are November 15 to May 1. (Common to all alternatives.)

2. Elk calving areas and transition (spring) range on Battlement Mesa and the northern slopes of Grand Mesa would be closed to snowmobile use off marked or maintained routes, beginning approximately April 15, each year. (See winter travel map Figure 6, page 26).

In portions of eight planning areas (see Table 3 and Map Figure 5) motorized trail vehicles would **only** be allowed off designated roads and trails during big game hunting seasons, for game retrieval purposes. (NOTE: This is a change to the preferred alternative made based on public comment received during the 60 day comment period.) Off-route motorized travel would be allowed on 80,283 acres, or 22.8% of the Grand Mesa National Forest **only** between noon and 5:00 p.m. Hunters would be encouraged to leave firearms in camp as a visible indication that they are not hunting with motorized vehicles. Off-route travel should only occur if there would be no damage to soil, water or vegetative resources. Individuals who cause resource damage through indiscriminate motorized off-route travel could be cited and fined under current CFR authorities.

Road/Trails Option

The preferred alternative would focus on operating and maintaining a network of roads and trails which would provide the full spectrum of recreation opportunities, from primitive trails to paved roads; would provide for all modes of travel; and is a recreation and transportation system that is designed to meet the needs of a variety of users.

Specific management options for system roads and trails are listed in the tables in Appendix E. Table 3 lists the proposed changes in management for specific roads and trails. Table 6 (page 34) summarizes and compares this information for each alternative.

Under Alternative 3 there would be approximately 322 miles of open system roads, 70 miles of closed system roads, 198 miles of system motorized trails and 119 miles of system non-motorized trails.

The designated travel ways would be posted, signed on the ground and depicted on the Travel Management Map. A new, updated Travel Map would be prepared to clearly depict available travel systems and networks, as well as travel regulations. In addition, maps specific to user types (e.g. ATV, snowmobile, cross-country ski) will be developed in cooperation with user groups, to better highlight those trail systems.

The difference between this alternative and Alternative 1 include:

- closing approximately 5 miles of low standard roads,
- redesignating approximately 3 miles of low standard road to motorized trail,
- closing approximately 8 miles of primitive roads,
- redesignating 24 miles of primitive road (10 miles open road and 14 miles closed road) as motorized trails,
- designating 28 miles of nonsystem trails to system motorized trails,
- redesignating 5 miles of motorized trail to motorcycle only (non-motorized use allowed),
- redesignating approximately 18 miles of motorized trail to non-motorized trail,
- redesignating approximately 3 miles of non-motorized trail to motorized,
- constructing 4 miles of new motorized trail to form connections for loop networks,

Grand Mesa Travel Management Plan EA

- constructing 2 miles of new motorcycle only trail (NOTE: Any proposed new construction would require additional NEPA environmental analysis.), and
- rehabilitate 299 miles of nonsystem trails.

The miles of road and/or trail available for various user groups under Alternative 3 are listed in Table 7 (page 35).

Miles of new trail construction have been reduced from the original proposal as a result of public comments concerning implementation costs. To retain the trail network linkages and loops that would have been provided by new trails, segments of gravel roads will be authorized open to motorized trail vehicles.

Two hundred ninety-nine (299) miles of nonsystem trail would not be incorporated into the trail system, and rehabilitated where necessary. These trails would not be inventoried, operated or maintained for any use.

Nonsystem routes could potentially be added to the transportation system. Cooperation between user groups and the Forest Service could identify and prioritize routes to be incorporated into the system. Partnership agreements concerning maintenance and possibly relocation or construction of routes could be entered into. As money from grants and/or partnerships becomes available, nonsystem routes could be incorporated into the transportation system.

The motorized trails that will be redesignated as non-motorized trails include:

Lake-of-the-Woods Trail No. 506. Access by foot would be emphasized to the four (4) high quality fishing lakes accessed by this trail. This trail was previously closed to motorized use with the Long Slough Environmental Assessment Decision Notice (1987) for soil and water resource protection and wildlife security, but there has been no enforcement of the closure.

Lily Lakes No. 509. Short (0.5 miles) access from Cottonwood Lakes Campground to Lily Lakes to provide non-motorized access for a walk-in fishing experience.

Salt Creek Trail No. 514. Trail is located below Grand Mesa rim on steep grades. It runs to the Forest boundary where no right-of-way exists to cross private land. Proposed relocation of Silver Spruce Trail and existing motorized trails provide alternative motorized access into the area.

Blue Grouse Trail No. 722. This is a dead end trail with no right-of-way across private land. Located in an important elk security area, removing motorized traffic would lessen the chance of moving big game off the Forest.

Bull and Brown 1A No. 724.1A. Removing motorized use from this trail will reduce soil and water resource impacts and protect wildlife security.

Cache Creek No. 903 and Battlement Trail No. 527. Redesignating these short spur trails will remove connections between motorized trails on the Battlements and non-motorized trails on the White River National Forest.

New motorized trail construction would consist of constructing a new trail (approx. 2.5 miles) from the Granby Road to Hwy 65 to provide alternative motorized access in the Hwy 65 to Alkali Basin area to trade off closures of motorized routes elsewhere in this area and to provide linkage across Hwy 65 to the road and trail network in the Marcott Creek to Hwy 65 planning area. In addition, approximately 1.5 miles of the Bull and Brown Trail No. 724 would be relocated to reduce resource impacts.

Two separate single track motorcycle trails (i.e. closed to ATVs) would be provided by utilizing 5 miles of system trail (Point Camp and Drop Off Trails) and constructing 2 miles of single track tread along an existing snowmobile trail in West Leon Creek.

As with Alternative 2, in areas where motorized travel is restricted to designated routes only, routes to and around reservoirs may be limited. Water users will continue to have access to all reservoirs, however, they would be required to use specific access routes to each reservoir. Special travel authorizations would be granted to all water rights owners and dam inspectors to access areas closed to public motorized travel, provided:

- each individual's access would be limited to the specific area where private property is owned,
- such access would be for operation, maintenance and inspection only (not for general access),

Special travel authorizations would also be issued to other permittees which require motorized access to perform a permitted activity in an area closed to public motorized access. These travel authorizations would be issued on a case by case basis.

Any Federal, State or local officer or member of an organized rescue or fire fighting force can use motorized access for emergency reasons in areas closed to public motorized use or where motorized use is restricted to designated routes, in the performance of an official duty. Emergency access for water users and dam inspectors is also allowed.

Under this alternative 28 lake/reservoir fisheries would be accessible by non-motorized means, only. A total of 76 fisheries will have motorized access either by road or motorized trail. (See Appendix F.)

Alternative 4 (TMW Proposal)

This alternative was submitted by the Thunder Mountain Wheelers, an ATV user group based in Delta, Colorado.

Area-wide Management Options

Three area-wide travel management options would be used under this alternative. Table 4, page 31 summarizes the travel management options for each planning area under Alternative 4.

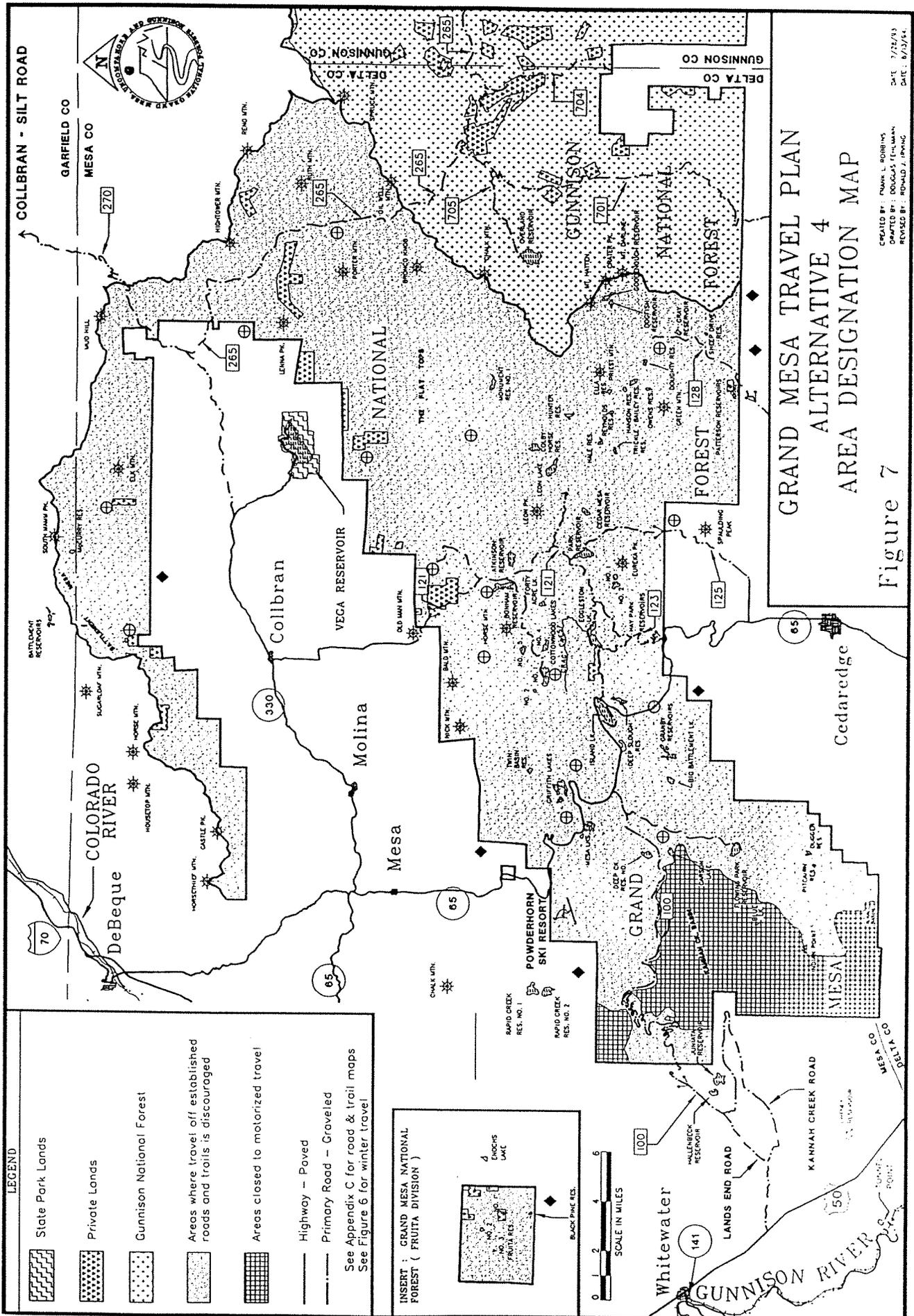
This alternative would classify approximately 11% (37,100 acres) of the Forest area as closed to all forms of motorized access in the Alkali/Kannah Creek/Whitewater Basin planning area. The remaining area would be classified as open but all users would be encouraged to confine their activities to existing roads and trails.

There would be no changes to existing travel regulations for snowmobiles operating over snow.

Separate travel management techniques would be used during high use seasons, such as hunting season. Special closure orders or restrictions to prevent resource damage may be applied to specific areas, for specific seasons, as needs are identified and documented. Restrictions on when (noon to 5:00 p.m.) ATVs could be used off-route during the hunting season would reduce the conflict between motorized and non-motorized hunters while still allowing use of ATVs for game retrieval.

Road/Trail Options

Under this alternative, all existing trails, both system and nonsystem, would initially be open to hiking, horseback riding, mountain biking and specialized motorized equipment specifically designed for trail use. As the plan is implemented, trails would be objectively evaluated as to appropriateness of use and



| Planning Area | Mgmt. Options | Low Standard Roads | No. | Length (miles) | Alt.4 |
|--|---------------|---------------------------|------------|-----------------------|--------------|
| Battlements | OT, R | Flowing Park Spur 1E | 109.1E | 1.10 | O |
| | | Flowing Park Spur 2A | 109.2A | 0.80 | O |
| Mud Hill / Road Gulch / Hightower | R/S,OT | Flowing Park Spur 2B | 109.2B | 1.50 | O |
| | | Flowing Park Spur 2C | 109.2C | 0.62 | O |
| | | Weir & Johnson Spur 1B | 126.1B | 1.32 | O |
| | | Hay Park Spur A | 129.1A | 0.50 | MT |
| Porter | OT | Ryan | 129.1G | 1.43 | MT |
| | | Prebble Reservoir | 129.1H | 0.25 | MT |
| Ruth Mountain | OT | Eureka Reservoir #2 | 129.1I | 0.90 | MT |
| | | Silver Lake | 256 | 0.80 | O |
| Willow Creek / Plateau | R, OT | Primitive Roads | No. | Length (miles) | Alt.4 |
| | | Pipeline | 110 | 3.10 | O |
| Flat Tops | R, OT | Point Cow Camp | 112.2B | 0.80 | O |
| | | Pitcairn | 112.2C | 0.50 | O |
| Upper Leon | OT, R | Atkinson Reservoir | 114 | 4.70 | O |
| | | Forest Lake Rd. | 124 | 0.40 | O |
| Leroux Creek to Marcott Creek | R | Colby Horsepark Reservoir | 127.2A | 0.50 | O |
| | | Mid-Griffith Lake | 249 | 0.90 | O |
| | | Forty Acre Lake Rd. | 256.1A | 0.40 | O |
| Marcott Creek to Hwy 65 | OT | Horse Mtn. | 258.1C | 3.10 | O |
| | | Bureau Pipeline | 259 | 11.00 | O |
| Hwy 65 to Trickle Park | R, OT | Cottonwood Cow Camp | 259.1A | 0.30 | O |
| | | Wagon Park | 263.1A | 1.50 | O |
| | | Colorado Ute Powerline | 264 | 7.40 | MT |
| Hwy 65 to Alkali Basin | OT | Powerline Spur A1 | 264.A1 | 0.50 | MT |
| | | Powerline Spur A2 | 264.A2 | 0.90 | MT |
| | | Powerline Spur A3 | 264.A3 | 1.70 | MT |
| | | Powerline Spur A5 | 264.A5 | 3.40 | MT |
| Lands End / Indian Point | OT, R | Buzzard Cow Camp | 265.2D | 0.70 | O |
| | | Dry Owens Creek | 268.1A | 1.75 | O |
| | | Road Gulch | 270.1A | 1.00 | O |
| Alkali / Kannah Creek / Whitewater Basin | C, R/S | Labbe Res. | 279.13 | 3.10 | O |
| | | South Sheep Creek | 281.1A | 1.90 | O |
| | | Trails | No. | Length (miles) | Alt.4 |
| Mesa Lakes | C, R/S | Lake-of-the-Woods | 506 | 5.90 | MT |
| | | Lily Lakes | 509 | 0.50 | MT |
| Coon / Bull / Cottonwood | OT | Crum Reservoir | 511 | 3.40 | MT |
| | | Salt Creek | 514 | 3.20 | MT |
| | | Greenwood | 721 | 1.80 | MT |
| Horse Mountain / Bonham | OT, R | Blue Grouse | 722 | 4.30 | MT |
| | | Bull and Brown 1A | 724.1A | 2.00 | MT |
| | | Bull and Brown 1B | 724.1B | 1.80 | MT |
| Sheep Flats / Young Lake | OT | Point Camp | 725 | 3.00 | MT |
| | | Drop Off | 726 | 2.20 | MT |
| | | Cache Creek | 903 | 1.40 | MT |
| Fruita Division | R | Battlement Trail | 527 | 1.00 | MT |

O = Off-route travel by all motorized vehicles.
 OT = Off-route travel by motorized trail vehicles only.
 R/S = Motorized travel restricted to designated routes, including snowmobiles.
 R = Motorized travel restricted to designated routes, not including snowmobiles.
 C = Closed to motorized travel.

Q = Open to motorized and non-motorized traffic.
 C = Closed to motorized traffic, open to non-motorized traffic.
 MT = Motorized Trail, open to motorized trail vehicles and non-motorized traffic.
 NM = Non-motorized Trail, open only to non-motorized traffic.
 MO = Motorcycle Trail, open to motorcycles and non-motorized traffic.

Grand Mesa Travel Management Plan EA

may be categorized by that use. No uses would be prohibited (except in closed areas), but some trails may be more desirable for one particular use, and would be so identified and managed. Standard size vehicles, such as 4WD vehicles, are not designed for travel on trails and would be limited to using existing roads.

All unpaved roads (including graveled roads) would be classified as "Authorized Open Roads", open to unlicensed vehicles, such as ATVs and motorcycles. Under the Colorado State OHV law, unlicensed motorized vehicles are not allowed on roads unless they have been designated as open to unlicensed vehicles.

The existing trail system would consist of various levels of development ranging from unmarked "cow-trails" to developed and maintained primary trail systems and would recognize and provide for the experience of discovery. The primary trail systems (which would correspond to the trail networks proposed in Alternative 3) would be posted, signed on the ground and depicted on the Travel Map. The primitive trails would not be shown on official maps and would be signed only as necessary to prevent resource damage and mark the route if not clearly visible on the ground. Efforts would be made to direct all users to the preferred and appropriate routes. A new, updated Travel Map would be prepared to clearly depict travel systems and networks. In addition, maps specific to user types (e.g. hiker, horse, snowmobile, mountain bicycle, ATV, motorcycle, cross-country ski) would be developed in cooperation with user groups, to better highlight those trail opportunities.

Specific management options for system roads and trails are listed in Appendix E. Table 4 lists the proposed changes in management for select roads and trails. Table 6, page 34, summarizes this information for each alternative.

Under Alternative 4 there would be 404 miles of primary system roads (roads currently closed for administrative reasons would be opened to public motorized use after these activities are complete), 203 miles of primary system motorized trails and 101 miles of primary system non-motorized trails. In addition, there would be 299 miles of nonsystem trails open to both motorized and non-motorized use.

Some specific road and trail changes proposed for this alternative include:

- designating 28 miles of nonsystem trails to primary system motorized trails,
- designating 5 miles of motorized trail as appropriate for motorcycle only (other motorized trail vehicles and non-motorized use allowed, however ATVs would be discouraged),
- redesignating approximately 3 miles of non-motorized trail to motorized,
- constructing 4 miles of new motorized trails to form connections for loop networks,
- constructing 2 miles of new motorized trail appropriate for motorcycles,
- rehabilitate 299 miles of nonsystem trails to minimum standards to protect soil and water resources.

Table 7 (page 35) lists the miles of roads and/or trails available for different user groups under Alternative 4.

All roads or trails that are utilized for the operation and maintenance of dams and reservoirs will be open for public use, eliminating the need for special travel authorizations.

New motorized trail construction would consist of constructing a new trail (approx. 2.5 miles) from the Granby Road to Hwy 65 to provide alternative motorized access in the Hwy 65 to Alkali Basin area to trade off closures of motorized routes elsewhere in this area and to provide linkage across Hwy 65 to the road and trail network in the Marcott Creek to Hwy 65 planning area. In addition, approximately 1.5 miles of the Bull and Brown Trail No. 724 would be relocated to reduce resource impacts.

Two separate single track motorcycle trails (i.e. ATVs discouraged) would be provided by utilizing 5 miles of system trail (Point Camp and Drop Off Trails) and constructing 2 miles of single track tread along an existing snowmobile trail in West Leon Creek.

There would be one fishery without motorized access (Blue Lake) on the Grand Mesa National Forest.

F. Comparison of Alternatives

| Planning Area | Alternative 1 (No Action) | Alternative 2 (1991 Plan) | Alternative 3 (Preferred) | Alternative 4 (TMW) |
|--|------------------------------|------------------------------|------------------------------|------------------------|
| Battlements | O, R | O, R | R | OT, R |
| Mud Hill/ Road Gulch/ Hightower | R/S, O | R/S, OT | R/S, OT* | R/S, OT |
| Porter | O | OT | R, OT* | OT |
| Ruth Mountain | O | R, OT | R, OT* | OT |
| Willow Creek/Plateau | R, O | R | R | R, OT |
| Flat Tops | R, O | R | R | R, OT |
| Upper Leon | O, R | OT, R | R, OT* | OT, R |
| Leroux Creek to Marcott Creek | R | R | R | R |
| Marcott Creek to Hwy 65 | O | O | R, OT* | OT |
| Hwy 65 to Trickle Park | R, O | R, O | R, OT* | R, OT |
| Hwy 65 to Alkali Basin | O | R | R | OT |
| Lands End/Indian Point | O, R | O, R | R, OT* | OT, R |
| Alkali/ Kannah Creek/ Whitewater Basin | C, R/S | C, R/S | C, R/S | C, R/S |
| Mesa Lakes | C, R/S | C, R/S | C, R/S | C, R/S |
| Coon/Bull/ Cottonwood | O, R, C | R | R | OT |
| Horse Mountain/ Bonham | O, R | R | R | OT, R |
| Sheep Flats/ Young Lake | O | R, OT | R, OT* | OT |
| Fruita Division | R | R | R | R |

O - Off-route travel by all motorized vehicles

OT - Off-route travel by motorized trail vehicles only

OT* - Off-route travel by motorized trail vehicles only for downed game retrieval during hunting seasons.

R/S - Restricted motorized travel (to designated routes) including snowmobiles

R - Restricted motorized travel (to designated routes) excluding snowmobiles

C - Closed to motorized travel

| TABLE 6. Alternative Comparison - Road and Trail Miles | | | | | |
|---|--------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------|
| | | Alternative 1 (No Action) | Alternative 2 (1991 Plan) | Alternative 3 (Preferred) | Alternative 4 (TMW) |
| System Roads (miles) | | | | | |
| Paved | | 25 | 25 | 25 | 25 |
| Graveled | Open | 105 | 105 | 105 | 108 |
| | Closed | 4 ¹ | 4 ¹ | 4 ¹ | 1 ¹ |
| Low Standard | Open | 83 | 77 | 75 | 122 |
| | Closed | 39 ² | 44 ² | 43 ² | 0 |
| Primitive | Open | 136 | 104 | 117 | 149 |
| | Closed | 28 ² | 30 ² | 23 ² | 0 |
| Total Open | | 349 | 311 | 322 | 404 |
| Total Closed | | 71 | 78 | 70 | 1 |
| System Motorized Trails (miles) | | | | | |
| Motorized Trail | | 152 | 133 | 132 | 150 |
| Redesignate Low Standard Roads | | 0 | <1 | 3 | 0 |
| | Redesignate Primitive Roads | 0 | 26 | 24 | 14 |
| Designate Nonsystem Trail | | 0 | 0 | 28 | 28 |
| Proposed New Trail | | 0 | 9 | 4 | 4 |
| Motorcycle Trail (redesignated Motorized Trail) | | 0 | 0 | 5 ³ | 5 ⁶ |
| Proposed New Motorcycle Trail ⁴ | | 0 | 0 | 2 ³ | 2 ⁶ |
| Total | | 152 | 169 | 198 | 203 |
| System Non-Motorized Trails (miles) | | | | | |
| Non-motorized Trails (not including Hiker Only) | | 85 | 105 | 100 | 82 ⁷ |
| Redesignated Primitive Road. | | | 3 | | |
| Hiker Only | | 19 | 19 | 19 | 19 ⁸ |
| Total | | 104 | 127 | 119 | 101 |
| Nonsystem Trails | | | | | |
| Motorized | | 267 ⁹ | 139 ⁹ | 0 | 299 ⁹ |
| To Be Rehabilitated ⁵ | | 60 | 188 | 299 | 0 |

1 Administrative traffic only.

2 Timber sale roads closed to public motorized use, to reduce road maintenance cost, retained for future sale entries or fuelwood access.

3 Single track trail open to motorcycles and non-motorized uses. Closed to ATVs.

4 Proposed new construction will require separate site specific environmental analysis (NEPA).

5 Nonsystem trails to be rehabilitated and closed to all uses.

6 More suited for single track motorized but ATVs not prohibited.

7 Motorized use not prohibited on 46 miles.

8 Motorized use not prohibited on 14 miles.

9 Repair of resource damage where needed.

| TABLE 7. Alternative Comparison - Transportation System by User Groups | | | | |
|---|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------|
| | Alternative 1 (No Action) | Alternative 2 (1991 Plan) | Alternative 3 (Preferred) | Alternative 4 (TMW) |
| Passenger Cars | | | | |
| Paved Roads | 25 | 25 | 25 | 25 |
| Graveled Roads | 105 | 105 | 105 | 108 |
| Total | 130 | 130 | 130 | 133 |
| 4WD/High Clearance Vehicles | | | | |
| Paved & Graveled Roads | 130 | 130 | 130 | 133 |
| Low Standard & Primitive Roads | 219 | 181 | 192 | 271 |
| Total | 349 | 311 | 322 | 404 |
| Motorized Trail Vehicles | | | | |
| Graveled Roads | 0 | 0 | 24 ¹ | 108 ² |
| Low Standard & Primitive Roads | 219 | 181 | 192 | 271 |
| Motorized Trails | 152 | 169 | 191 | 196 |
| Motorcycle Only | 0 | 0 | 7 | 7 |
| Nonsystem Trails | 267 | 139 | 0 | 299 |
| Total | 638 | 489 | 414 | 881 |
| Non-Motorized Users | | | | |
| Paved & Graveled Roads | 134 | 134 | 134 | 134 |
| Low Standard & Primitive Roads | 286 | 255 | 258 | 271 |
| Motorized Trails | 152 | 169 | 191 | 196 |
| Motorcycle Only | 0 | 0 | 7 | 7 |
| Non-Motorized Trails | 85 | 108 | 100 | 82 |
| Hiker Only Trails | 19 | 19 | 19 | 19 |
| Nonsystem Trails | 267 | 139 | 0 | 299 |
| Total | 943 | 824 | 709 | 1008 |

1 To provide loop connections unlicensed motorized vehicles would be allowed on 24 miles of graveled roads.

2 Graveled roads would be authorized as open to unlicensed motorized vehicles. Includes 3 miles of road currently closed to public motorized use.

G. Mitigation and Monitoring

Mitigation measures are actions taken to avoid, minimize, reduce or eliminate adverse effects as a result of implementing an alternative. The following mitigation measures will be used when implementing any of the alternatives for the Grand Mesa National Forest Travel Management Plan.

- Stress user education and information as management tools to inform the public of appropriate uses, ethics and interactions with other users.
- Information on user ethics will be distributed through active user groups and clubs to achieve compliance.
- In areas where motorized travel is restricted to designated routes only, routes to and around reservoirs may be limited. Water users will continue to have access to all reservoirs, however, they may be required to use specific access routes to each reservoir. Special travel authorizations will be granted to all water rights owners and dam inspectors to access areas closed to public motorized travel, provided:
 - each individual's access will be limited to the specific area where private property is owned (the permitted area),
 - such access will be for operation, maintenance and inspection only (not for general access),
- Special travel authorizations will be issued to water users and other permittees where completion of permitted activities requires use of motorized access into areas where motorized access is restricted or prohibited.
 - Permitted travel will be only on approved/specified routes.
 - Permittees will be required to have written authorization present in/on their vehicle identifying them as legal users within restricted areas.
- All Class I (high hazard) dams have an Emergency Action Plan which describes the access routes and who is responsible to carry out action plans. Pursuant to 36 CFR 261.50 (e), each of the following is exempted from the travel regulations:
 - 1) Persons with a permit specifically authorizing the otherwise prohibited act or omission;
 - 2) Any Federal, State or local officer or member of an organized rescue or fire fighting force in the performance of an official duty.
- Special travel authorizations will be issued to disabled individuals to allow use of motorized access in areas where their means of transportation does not conform with travel regulations, but safety and resource concerns would allow such access (e.g. A trail vehicle is defined as less than 48 inches in width. A mobility impaired individual desires to use a 60-inch wide vehicle.). Applicants will have to meet the same criteria currently used by the Colorado Division of Wildlife for their Permanent Handicapped Hunter Permit application. (Only Alternatives 2 and 3.)
- The designated travel ways will be posted, signed on the ground and depicted on the Travel Map. A new, updated Travel Map will be prepared to clearly depict available travel systems and regulations. In addition, maps specific to user types (e.g. ATV,

snowmobile, cross-country ski) will be developed in cooperation with user groups, to better highlight those trail systems.

- Acquisition of key trail rights-of-way will be pursued to enhance public access, particularly those areas landlocked by private land.
- Plan implementation will emphasize maintenance and reinforcement of designated routes to withstand use in preference to closure of routes.
- Unsurfaced, low standard or primitive roads will be classified as "Authorized Open Roads", in accordance with the State of Colorado's off-highway vehicle law, making it legal to ride unlicensed vehicles, such as ATVs and dirt bikes, on these roads. These roads will serve as linkages to trails open to motorized trail vehicles and be part of the available trail network. These "authorized open" routes will be added to the State OHV map, making it possible for State OHV registrations funds to be used to defray maintenance costs on these routes. (State funds would have to be applied for by OHV user groups who could then make them available to the Forest Service through cooperative agreement.)
- Forest Supervisor will close road(s), trail(s) and/or area(s) where significant resource damage is occurring, by special order. Federal Regulation 36 CFR Part 261 prohibits damage to the land, wildlife or vegetative resources.
- Road and/or trail construction, reconstruction and use in transitional and winter ranges will be regulated and monitored (see below) to prevent loss of security areas and fragmentation of habitat, through: restricting travel to designated roads and trails, seasonal timing provisions on use, specification on type of use on/off roads/trails, establishing maximum road/trail densities which will not diminish security areas, providing environmental information to users and developing partnerships with users.
- Provide key habitat components important for maintaining the overall integrity of specific habitats (i.e. calving areas, nursery areas, cavity nesting areas, plant colonies, spawning and rearing sites, etc.) through: road/trail/parking area locations and design standards specific to needs within an area, seasonal timing provisions on use, specifying types of use on/off roads/trails, area avoidance, modifications of stream crossing standards, identification and management for replacement of key habitat components, providing environmental information to users and developing partnerships with users.
- Prevent permanent and/or repeated displacement of wildlife/fish/plants from cumulative impacts of forest activities. Retain and manage for foraging and reproductive habitat attributes which are of the size and spatial arrangement to support genetic transfer of populations across bio-regions.
- Identify and minimize parallel roads/trails, especially those dissecting ridge tops and/or drainages which act as barriers to wildlife movements in times of increased forest visitor use in spring and fall.
- Avoid and/or rehabilitate plant communities which have been dissected with roads/trails which have caused a change, loss or diminished function of the plant community.

- Relocate roads/trails to minimize or avoid disturbance to soils, unique/relic plant communities and wet areas.
- Provide and retain effective vegetative cover along all roads and trails for 40% of their total length where cover naturally would occur.
- Manage for extreme circumstances in the ecosystem (i.e. successive drought years, abnormal temperatures, fire, etc.).
- Focus law enforcement on areas of greatest concern or potential for resource damage.
- Use positive signing to inform public of route closures. Identify which uses area is open to, which uses the area is closed to and why. White arrow symbols will be posted on all open routes.

Monitoring travel management practices and use will be done to determine if mitigation measures are being effective or if additional actions need to be taken to avoid, minimize, reduce or eliminate adverse effects as a result of implementing an alternative. Monitoring can also identify whether reasons for travel restrictions still exist and determine if there are needs for additional recreational opportunities. The following monitoring measures will be used when implementing any of the alternatives for the Grand Mesa National Forest Travel Management Plan.

- To prevent loss of security areas and fragmentation of habitat in transitional and winter ranges the Forest Service will monitor habitat effectiveness; carrying capacity for animals using these areas; animal movements on, through and out of transitional and winter ranges and private land; changes in plant composition and forage utilization that indicate trends; and animal mortality in these areas.
- Monitor key habitat components to determine any changes in habitat effectiveness, carrying capacity, animal movements and use, changes in plant use or plant composition and animal mortality.
- Monitor wildlife use patterns in travel restricted areas (ex. Indian Point).
- Work with users groups to determine if desired recreational opportunities are being provided, and if not, determine if opportunities exist to meet these needs.
- See Forest Plan direction for travel management monitoring page IV-14.

IV. Environmental Consequences

AT THIS POINT IT IS IMPORTANT FOR THE READER TO UNDERSTAND THE IDEA OF TWO LEVELS OF ANALYSIS AND DECISIONMAKING PRESENTED IN CHAPTER I. AT THE FIRST LEVEL, ENVIRONMENTAL EFFECTS OF AREA-WIDE MANAGEMENT OPTIONS ARE DISCUSSED. AT THE SECOND LEVEL, ENVIRONMENTAL EFFECTS OF VARIOUS SPECIFIC ROAD/TRAIL OPTIONS ARE DISCUSSED.

WITHIN EACH OF THESE LEVELS THERE IS A DISCUSSION OF THE GENERAL EFFECTS OF OPTIONS ON EACH OF THE ISSUE DRIVEN RESOURCE AREAS, FOLLOWED BY DISCUSSION OF EFFECTS RELATED TO SPECIFIC AREAS, ROADS OR TRAILS. THEN, AT THE LAST PART OF THIS CHAPTER, THERE IS A DISCUSSION OF THE ENVIRONMENTAL EFFECTS OF EACH OVERALL ALTERNATIVE (ALTERNATIVES 1 - 4)

SHOULD THEY BE IMPLEMENTED. THIS MULTILAYERED ANALYSIS IS DESIGNED TO GIVE THE READER AND THE DECISION MAKER A CLEAR UNDERSTANDING OF THE EFFECTS OF CHOICES BEING CONSIDERED, FROM A SPECIFIC AREA OR ROAD PERSPECTIVE, ALL THE WAY TO THE FOREST-WIDE EFFECTS OF CHOOSING A GIVEN ALTERNATIVE. A REVIEW OF THE TABLE OF CONTENTS FOR THIS CHAPTER MAY ALSO HELP THE READER TO UNDERSTAND THIS ORGANIZATION.

A. General Consequences of Area-wide Management Options

This section describes the environmental effects of each area-wide travel management option on elements of the environment.

1. Cultural Resources

A discussion of cultural resources found on the Grand Mesa National Forest is contained in the Final Oil and Gas Leasing EIS for the Grand Mesa, Uncompahgre and Gunnison National Forests, April 1993, (O&GEIS) pages III-40 through III-43.

Effects of Off-route travel by all motorized vehicles. Off-route travel by motorized trail vehicles.

Some degradation of cultural sites could occur from unrestricted off-route travel by motorized vehicles. Overland travel could result in disturbing and/or destroying isolated sites.

There is also a potential that heretofore unknown cultural sites could be discovered in areas not previously inspected by Forest archaeologists.

Effects of Travel by motorized vehicles on designated routes, (including and excluding snowmobiles traveling on snow).

Little degradation of cultural sites should occur under these options. Designated routes would be maintained as system travel ways, designed and constructed to specific standards. Prior to all new ground disturbing activities, archaeological surveys would be conducted, resulting in either avoidance of any significant cultural sites, or recordation prior to disturbance. If any cultural artifacts are uncovered during maintenance or construction, work would be halted until the site is surveyed and evaluated by an archaeologist, and appropriate mitigation completed.

In the case of snowmobiles traveling on snow, no degradation of cultural sites would occur since the sites would likely be buried under snow.

Effects of Closure to motorized travel.

No degradation of cultural sites as a result of motorized activity would occur under this option. Some impacts could occur from non-motorized users traveling overland, resulting in disturbance and/or destruction of isolated sites.

2. Soils

Soils information has been gathered throughout the Grand Mesa National Forest as part of the National Cooperative Soil Survey, conducted by the Soil Conservation Service (1979-1992). Soils on the Grand Mesa National Forest can be grouped into two regions:

Grand Mesa Travel Management Plan EA

1. Grand Mesa Top - also includes top of Battlement Mesa
2. Grand Mesa Sideslopes - includes all upper- and mid-slopes of Grand Mesa, Battlement Mesa and the Muddy Basin-Buzzard Divide area.

Brief descriptions of the soil characteristics in these regions can be found in the O&GEIS pages III-19 through III-20. Discussions of soil erosion, slope stability and soil productivity are also included in the O&GEIS pages III-21 through III-22.

Effects of Off-route travel by all motorized vehicles. Off-route travel by motorized trail vehicles.

Off-route travel by motorized vehicles (both full-size and trail-size) have the most impact during wet soil conditions, when soils can be easily rutted and compacted. Compacted soil results in increased runoff and ruts act as channels for this runoff. The erosion potential increases with slope.

On the Grand Mesa Top, soils with fine textured subsoils result in localized seasonally perched water tables, so these soils remain wet into the summer season. Rains which usually occur in the late summer (mid-July through mid-August) recharge the soil moisture during the growing season. Snows in the late fall (late October through mid-November) also keep the soil wet before the ground freezes. Under these climatic conditions, many areas on the Grand Mesa Top are susceptible to impacts from off-route travel during much of the summer and fall seasons.

The Grand Mesa Sideslopes generally show much evidence of past soil mass movement in the form of earthflows, slumps, slides and mudflows. These areas are classified as mostly moderate with some areas of high geologic hazard because of the slope instability. Off-route travel on these soils, particularly in wet conditions (as described above), can increase the chance of soil movement through erosion and mass wasting.

Effects of Travel by motorized vehicles on designated routes, (including and excluding snowmobiles traveling on snow).

Designated routes would be designed and located to avoid areas where soils remain wet during much of the summer and fall seasons, or mitigating measures (i.e. turnpikes, culverts, bridges, surfacing) could be used to lessen the travel impact in the more sensitive areas. Seasonal or temporary closures could also be used to restrict travel during susceptible (wet) periods. In the case of steeper slopes, routes would be located to lessen the chance of slope movement. Routine maintenance on designated routes would also help reduce travel impacts to the soil resource.

Snowmobiles operating on snow would have no impacts to soil resources.

Effects of Closure to motorized travel.

Closing an area to motorized travel would result in no impacts to the soil resources from motorized vehicles either on or off roads or trails.

Soils could be negatively impacted by non-motorized activities (i.e. horseback riding, mountain biking, hiking) during wet soil conditions, just as described above. Similar mitigation measures as mentioned above could be used to lessen impacts of non-motorized use on designated routes. Impacts resulting from non-motorized use off designated routes could be lessened through user information programs (i.e. low-impact camping).

3. Water

Water resources have been extensively and intensively managed on the Grand Mesa National Forest for over 100 years. Numerous reservoirs and ditches, as well as natural lakes and stream courses store and move water on and off the Grand Mesa. Communities surrounding the Forest use this water for recreation, domestic use, power generation and irrigation. Good water quality is important for these uses as well as providing important fish and wildlife habitat.

Effects of Off-route travel by all motorized vehicles. Off-route travel by motorized trail vehicles.

Water quality is directly related to impacts on soil and vegetative resources. Off-route travel by motorized vehicles which impacts soils resulting in increased overland flow and erosion, in turn results in increased sedimentation and decreased water quality. Potential impacts are related to soil type, slope and distance of disturbance from water source. (Locations showing evidence where this is occurring include Grove Creek, Young's Lake, Lake-of-the-Woods area.)

The anticipated increase in motorized recreation use on the Grand Mesa could result in an increase in off-route motorized vehicle use, as well. The number and area of unplanned travel routes impacting riparian zones could increase. This in turn would result in increased impacts to water quality.

User ethics education, signing, information and enforcement are management tools which could be used to reduce impacts under these travel management options.

Effects of Travel by motorized vehicles on designated routes, (including and excluding snowmobiles traveling on snow).

As with soils, restricting motorized activity to designated routes could reduce impacts to water quality. Designated routes would be designed and constructed to handle the anticipated traffic. Drainage structures would be installed to dissipate overland flow to reduce erosion. Wet areas would be avoided or structures installed (i.e. bridges, culverts, hardened fords) to reduce impacts to soil and water resources. Routine maintenance would occur on designated routes, to ensure drainage structures are working. Seasonal or temporary route closures could also be used to restrict travel during wet soil conditions.

Watershed rehabilitation needs on nonsystem trails could be reduced over time where travel is restricted to designated routes, because as these nonsystem trails recover naturally or are rehabilitated, impacts to soil and water resources could be reduced.

There would be no impacts to water resources as a result of snowmobile activity on or off designated routes.

Effects of Closure to motorized travel.

There would be no impacts to water resources from motorized vehicle travel under this travel management option.

As with soils, water resources could be negatively impacted by non-motorized activities (i.e. horseback riding, mountain biking, hiking) during wet soil conditions, just as described above. Similar mitigation measures as mentioned above could be used to lessen impacts of non-motorized use on designated routes. Impacts resulting from non-motorized use off designated routes could be lessened through user information programs (i.e. low-impact camping).

4. Vegetation

Elevations on the Grand Mesa National Forest vary from 6,000 to 11,000 feet. Plant associations found on the Forest include pinyon-juniper woodlands, mixed shrublands, aspen forests, mixed aspen-conifer and spruce-fir forests, interspersed with grasslands and forblands. Species mix depends on elevation, exposure and soil types, as does productivity. A relatively short growing season (approximately 45 days above elevations of 9,000 feet) directly effects how an area recovers from disturbance.

Effects of Off-route travel by all motorized vehicles. Off-route travel by motorized trail vehicles.

Vegetation can be crushed and bruised by off-route motorized travel. Where travel is repeated over the same path, roots can become exposed and damaged. Affected plants lose vigor. Results can vary from less individual plant growth to loss of plant species. Trees can be cut down or pushed over to clear paths. In wet areas, soils may become compacted and plants may be unable to germinate in the area. Associated soil erosion and water quality degradation may occur. Loss of vegetation in wet areas may also result in these sites drying up. Non-native or undesirable plant seeds can be introduced. There may be a loss of species diversity.

These impacts are associated with the path of motorized travel. Where motorized travel is spread out over a large area, so are the impacts.

The most impact occurs during wet soil conditions. 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 may be visible for years.

Effects from motorized use are often subtle but significant. Impacts can expand away from originating points (roads/trails). Disruptions and/or demise of functions between soils, plants, water cycles and air resulting from motorized impacts are not as readily observed.

User ethics education, and informative signing are tools that can be used to help lessen the impacts of off-route motorized travel, by encouraging users to stay on existing routes.

Effects of Travel by motorized vehicles on designated routes, (including and excluding snowmobiles traveling on snow).

Vegetation is cleared to construct and/or maintain designated routes. The disturbance to the vegetative resource is greatest along any given travel route corridor. Designated routes are usually constructed to avoid sensitive areas (i.e. riparian area, wet meadows) as much as possible. Often the existing vegetation is used to enhance the visual quality along roads and trails. Limiting motorized travel to designated routes will reduce impacts to the vegetative resource.

Linear breaks (like roads or trails through plant communities) can act as barriers to these communities. High densities of linear breaks result in fragmentation of plant communities and landscapes.

Shoulder and side cuts along roads create micro-climates within the ecosystem. Plants generally found in these sites are more adapted to drier, disturbed growing conditions than native high elevation mesic species. Micro-pollutants (i.e. petroleum products) accumulations are higher within ground level air zones along roads.

Snowmobile travel on or off-route will have little effect on vegetative resources.

Effects of Closure to motorized travel.

There would be no impacts to vegetative resources from motorized vehicle travel under this travel management option.

Vegetative resources could be negatively impacted by non-motorized activities (i.e. horseback riding, mountain biking, hiking) during wet soil conditions, overland travel or under heavy use, just as described above. Impacts resulting from non-motorized use off-designated routes could be lessened through user information programs (i.e. low-impact camping). Impacts from any new non-motorized trail construction or maintenance would be limited to a corridor along the travel route.

5. Fisheries, Aquatic and Riparian Resources

Natural water courses on the Grand Mesa have been greatly altered by private development. Wetland and shallow lake habitats have been replaced by reservoirs and stock ponds. Still water environments, seeping dams, spillways and culverts provide today's amphibian habitat. Motorized routes have added to the further loss of remaining riparian and wetland areas. Many moist meadows have been fragmented by these routes, which drain away surface runoff or alter subterranean flows. Some historic moist meadows are now dry meadows.

***Effects of Off-route travel by all motorized vehicles.
Off-route travel by motorized trail vehicles.***

People are naturally drawn to water and riparian areas. As a result, some off-route motorized travel paths could cross wetlands and streams. Loss of vegetation, soil structure (through compaction) and bank stability may occur, resulting in increased sedimentation. Streambanks and lake and reservoir shorelines which receive heavy motorized use could become denuded of vegetation and soils could become compacted and rutted. Increased sediment could enter the water. Increased sediment could negatively impact fisheries, by reducing available oxygen and potentially covering spawning gravels. Additional fishing pressure from the anticipated increased use may result in the more accessible fisheries being over fished.

Wetlands and streams regulate stability of entire watersheds. Degradation of these areas may result not only in loss of native plants, wildlife and fish, but impact water quality of entire watersheds.

***Effects of Travel by motorized vehicles on designated routes,
(including and excluding snowmobiles traveling on snow).***

Impacts to fisheries, aquatic resources and riparian resources could be reduced by restricting motorized vehicles to designated routes. Designated routes could be located away from riparian areas wherever possible, to reduce the amount of sediment and overland water flow that could be generated from motorized travel. Routine maintenance on roads and trails to insure drainage structures are working properly and seasonal route closures during wet soil conditions would also reduce potential impacts to aquatic and riparian resources. Where routes cross riparian areas and/or streams, mitigating measures like bridges, hardened fords, or culverts would be used to lessen impacts. Crossing would be at right angles, to reduce the amount of surface disturbance adjacent to the riparian area/stream.

Potential impacts to fisheries could also be reduced. By having a network of maintained routes, a diversity of fishing experiences can be managed for, along with proactive management of riparian vegetation.

Snowmobile activity would have little impact on fisheries, aquatic resources or riparian resources.

Effects of Closure to motorized travel.

Impacts to riparian habitat resulting from motorized travel would be eliminated; however, impacts to streambanks and lake and reservoir shorelines (devegetation, soil compaction) could result from non-motorized activities if use is heavy. Eliminating motorized access to some popular fishing areas could concentrate people into areas more easily accessed. Potential problems could be lessened through user ethic education and good distribution of information on alternate locations for similar activities.

6. Wildlife Habitat

Effects of Off-route travel by all motorized vehicles.

Off-route travel by motorized trail vehicles.

Motorized use is only one aspect influencing habitat effectiveness; however, it is one of the more manageable facets of public resource management. Off-route motorized travel decreases habitat effectiveness for many species. Habitat effectiveness is the percentage of usable habitat available for wildlife (Lyons and Christensen, 1992). Habitat effectiveness correlates to influences of cover, topography and food (Basil and Lonner, 1979; Hillis et al, 1991). Habitat effectiveness in areas with gentler and more open slopes depends on greater amounts of undisturbed habitat (Hillis, et al, *ibid.*; Thomas, 1976).

Species tied to small home ranges (i.e. small mammals, neotropical birds and amphibians) are susceptible to routes crossing meadow areas dissecting plant and animal communities. Numerous microsites could develop and the balance of the meadow ecosystems shifts. These shifts are often beyond the adaptable limits of plants and wildlife. Native plants could be replaced by exotic weeds or invader species. Local populations of some wildlife species, such as amphibians or certain insect species could become less common or disappear altogether.

Other species with larger home ranges prefer larger expanses of uninterrupted forested habitat. Routes crossing densely forested areas intrude upon species dependent upon interior habitat. The more breaks in the interior, the greater the fragmentation of the habitat. Habitat for interior species, such as pine marten and goshawk, could become fragmented as new user routes are developed or created.

Animals adopt movement patterns within a defined area of their home range. These patterns are influenced by stress on the animal. If an animal becomes stressed the animal may move out of an area more easily. An animal will remain in an area only when the balance of food, water and security cover (provided by either topography or vegetation) offset the stress an animal is experiencing. (Lyon, Jack and Christensen, 1992)

Topography and vegetative cover along roads/trails is very important to big game, especially for heavily used routes. Calving areas which are topographically separated from low-traffic roads have a higher probability of use than areas with topographic barriers between calving locations and high use roads. Calving areas separated from high use traffic areas by minimal topographic barriers are least used (Edge and Marcum 1991, Perry and Overly, 1977). Unique habitat features such as wallows, springs or ridgetops may require more security cover, as well.

Off-route motorized travel can negatively impact big game by encroaching upon important habitats, especially during critical time periods (i.e. calving/fawning, fall breeding areas, winter ranges, staging areas, migration routes).

Use of snowmobiles to run trap lines could negatively impact furbearer species, such as pine marten. A much larger area can be accessed and trapped through the use of motorized vehicles than would be possible with foot access.

***Effects of Travel by motorized vehicles on designated routes,
(including and excluding snowmobiles traveling on snow).***

With motorized travel only on designated roads and trails, encroachment into wildlife habitat could be reduced from what is described above. Sensitive habitats like meadows and riparian areas could be avoided by designated routes. Additional nonsystem/user developed routes would not further fragment interior habitats.

Travel routes should be located where vegetative cover and topographic barriers lie between unique habitat features such as winter ranges, fall concentration areas, wetlands, riparian areas, wallows or calving areas. Where alternative location opportunities are limited, other management options (i.e. seasonal road closures, restrictions on types of motorized use, etc.) can be explored (Leege, 1984, Lyon et al, 1985).

Big game winter range areas would be closed to snowmobile and vehicle use (approximately November 15 through May 1). In the spring, elk calving and transitional range could be closed to snowmobile use (except on groomed and/or marked snowmobile trails) or other vehicle travel beginning approximately April 15 to June 15 (depending on snow conditions, etc.). This would not likely affect snowmobiling opportunities, because snow condition which would allow elk to move into the area are not conducive to snowmobile use.

Impacts of trapping on furbearers would be the same as described above where snowmobile use is not restricted to designated routes. Where snowmobile use is restricted to designated routes the impacts of trapping would be lessened.

Effects of Closure to motorized travel.

The effects of closing an area to all motorized travel would further reduce the potential of motorized disturbance to wildlife habitat. System non-motorized trails would be designed to avoid critical habitat areas, however off-route non-motorized travel could potentially impact animals at critical periods in some circumstances.

A closure to motorized travel would reduce the potential impact of winter trapping on furbearers by limiting the amount of area that could readily be covered by non-motorized means.

7. Threatened, Endangered and Sensitive Species

All travel management activities are subject to the provisions of the Endangered Species Act.

All modes of travel on road/trail and cross-country have the potential to adversely effect threatened, endangered and sensitive plant, animal and fish species on the Forest, unless species and their habitats are protected and monitored where they are known to occur. Provisions will be made to protect existing and new populations, individuals and habitat on a case by case basis. Where a biological assessment and/or evaluation indicates a species may be adversely affected, measures would be adopted to prevent any adverse impacts.

Threatened and Endangered Species

American Peregrine Falcon (*Falco peregrinus anatum*) Endangered - The peregrine falcon nests on large cliffs overlooking or situated near streams, rivers and possibly lakes. There are no known active nesting sites on the Grand Mesa National Forest, however two eyries occur on lands adjacent to the Forest. Adults and juvenile birds have been observed hunting on the Forest primarily along the mesa rim. Juvenile birds have been found, apparently hit by motor vehicles, along Hwy 65 in 1990 and 1991.

Bald Eagle (*Haliaeetus leucocephalius*) Endangered - The bald eagle is known to occur year-round on the Grand Mesa National Forest. They are common migrants through the area during spring and fall and they also winter in the main river drainages where open water is abundant, both on and off the Forest. Big game winter ranges are frequented in the winter where eagles feed on carrion. Winter roost sites are associated with feeding areas. Bald eagles have been observed near several lakes on the Grand Mesa during the nesting period, but no nest sites are known to occur. Nesting may occur in the future as bald eagle populations increase. Bald eagles are very sensitive to human disturbance during the nesting period.

Whooping Crane (*Grus americana*) Endangered - Whooping cranes pass over the Grand Mesa during their spring and fall migrations between southern New Mexico and central Idaho. Cranes stop and rest at Fruit Growers Reservoir, just south of the Grand Mesa, near Orchard City and Cedaredge, to rest before or after crossing the Grand Mesa. Whooping cranes have been reintroduced into this flyway by replacing whooping crane eggs in sandhill crane nests. The sandhill crane parents raise the whooping cranes, which have continued to migrate with their foster parents. Whooping cranes may occasionally stop on the Grand Mesa to feed or rest during their migrations.

Colorado Squawfish (*Ptychocheilus lucius*) Endangered - Historic range of the Colorado squawfish included the main channels and major tributaries of the entire Colorado River basin. Present distribution is restricted to the upper Colorado River system above Glen Canyon. No habitat occurs on the Grand Mesa National Forest, however this downstream species could potentially be impacted by any activity which depletes the amount of water entering the Colorado River system.

Razorback Sucker (*Xyrauchen texanus*) Endangered - Historically this species also occurred throughout the main channels and tributaries of the Colorado River basin. It is known to exist in the Green River (below its confluence with the Yampa River) and in the Colorado River upstream from its confluence with the Green River, to DeBeque, CO. No habitat occurs on the Grand Mesa National Forest. Potentially dewatering activities could also impact this downstream species.

Bonytail Chub (*Gila elegans*) Endangered - This species once occurred throughout the Colorado River basin. Present distribution is in the Black Rocks area of Ruby Canyon and Cataract Canyon (Colorado River) and Desolation Canyon (Green River). No habitat for this species exists on the Grand Mesa National Forest. Activities which could remove water from the Colorado River system could have adverse impacts on this downstream species.

Humpback Chub (*Gila cypha*) Endangered - This species occurs in the upper Colorado River in canyon areas with fast currents, deep pools and boulders. No habitat for this species exists on the Grand Mesa National Forest. As with the other endangered fish species, activities which could reduce the amount of water in the river system could adversely effect this downstream species.

Candidate Species

North American Lynx (*Felis lynx canadensis*) - Colorado is the southernmost range for this species. Lynx prefer boreal forest situations consisting of spruce, fir, lodgepole pine and mixed aspen/conifer. Its primary prey species, the snowshoe hare, frequents these habitats. Dense stands of young conifers are used for hunting; mature stands are used for denning, cover and travel corridors. Lynx habitat and range has dwindled due to hunting, trapping pressure and predator control programs. Forest fragmentation

caused by roading and logging and increased accessibility for trappers have probably contributed to their decline.

North American Wolverine (*Gulo luscus*) - Historically the wolverine occurred on the Grand Mesa. No recent sightings have been reported. Wolverine inhabit coniferous forests and alpine areas during the summer and move to lower elevations during the winter where carrion or weakened big game animals could be present. They prefer large unroaded areas where contact with humans is minimal. As with the lynx, habitat and range for this species has probably been reduced by roading and logging. Increased trapper accessibility may also have impacted this species. This species, like the lynx, prefers large unroaded areas where contact with humans is minimal.

Northern Goshawk (*Accipiter gentilis*) - This species occupies mature coniferous, mixed coniferous/aspen and aspen forests which occur on the Grand Mesa National Forest. Large unbroken areas of habitat are preferred. This species is particularly sensitive to disturbance during nesting periods (March 15 through July 31). Habitat fragmentation can adversely impact this species.

Boreal Western Toad (*Bufo boreas boreas*) - High elevation spruce/fir communities associated with open moist and wet meadows and areas of still water are suitable habitat for this species. This subspecies is the only toad to utilize habitat at elevations above 9,000 feet. It winters under spruce/fir roots and downed materials. Metamorphic young use drier uplands. Once common across the Grand Mesa, this species has drastically declined in number.

Colorado River Cutthroat Trout (*Oncorhynchus clarki pleuriticus*) - This species is native to the Colorado River drainages, including all major creeks on the Grand Mesa National Forest. Due to habitat loss and competition from introduced species, numbers have steadily declined. Spring spawning is regulated by water temperatures reaching a minimum of 45 degrees F., in clean, sediment free gravel beds with moderate water flows. Well vegetated stable stream banks are needed to regulate high water flows and water temperatures. Instream cover and good pool to riffle ratios are important to fry survival. The Forest Service is currently working with the Colorado Division of Wildlife to develop a conservation plan for this species to prevent its status from declining further. Plans to reintroduce this species to several areas on the Grand Mesa are currently being studied.

Flannelmouth Sucker (*Catostomus latipinnis*) - This species is native to the Colorado River system. Habitat occurs in rocky pools, runs and riffle habitat in medium to large rivers in the system. No habitat for this species occurs on the Grand Mesa National Forest. Like the endangered fish species, population declines are thought to be the result of dam and reservoir construction, introduction of non-native fishes and removal of water from the Colorado River system.

Roundtail Chub (*Gila robusta*) - Roundtail chub once occurred throughout the Colorado River system. This species is now only found in isolated populations. This species does not occur on the Grand Mesa National Forest. Population declines are likely the result of dam and reservoir construction, introduction of non-native species and removal of water from the Colorado River system.

Grand Mesa Penstemon (*Penstemon mensarum*) - This plant is found only in Mesa and Delta counties on the Grand Mesa. It is found in the Gambel oak and aspen plant associations at elevations from 7,200 to 9,500 feet. It can also occur in open meadows on low creek terraces. This species is susceptible to impacts from off-route travel.

Sensitive species or species of special concern within Colorado and Region 2 of the Forest Service which could be affected by travel management activities include:

Greenland Primrose (*Primula egaliksensis*) Wormsk. ex. Hornem. - This species is limited to very wet meadows and swales in the high mountain valleys, where it is associated with sedges, rushes, shooting star and pale blue-eyed grass. This plant has only been collected from one site in Colorado, not on the Grand Mesa National Forest; however, suitable habitat is present on the Forest.

Harrington's Beardtongue (*Penstemon harringtonii*) Penl. - This plant occurs on pinyon, juniper and sagebrush covered slopes of the upper Colorado and Eagle River valleys. This penstemon grows 1 to 2 1/2 feet tall, has deep blue to pinkish lilac flowers with two stamens extending out of the throat of the flower like a tongue. Scattered populations may occur on the lower elevation of the Grand Mesa National Forest, however none are known to exist at this time.

Northern Leopard Frog (*Rana pipiens*) - The leopard frog typically inhabits the banks and shallow portions of permanent bodies of water, especially those having rooted aquatic vegetation. This species can also be found in wet meadows. Once abundant throughout Colorado, it is becoming increasingly scarce throughout much of its range.

Tiger Salamander (*Ambystoma tigrinum*) - This species occurs in most habitats that contain non-flowing water suitable for breeding, up to 12,000 feet in elevation. Preferred sites include ponds that are mud bottomed and at least 18" deep, with a shallow shoreline.

Milk Snake (*Lampropeltis traingulum*) - Milk snakes are strikingly colored with alternating black, red, black, yellow bands. This snake ranges from extreme southern Canada to northern South America and uses a wide variety of habitats including grasslands, sandhills, canyons and open stands of ponderosa pine and pinyon-juniper. In western Colorado this species normally occurs below 6,000 feet in elevation. The subspecies found on the Grand Mesa National Forest is the Utah milk snake (*L. traingulum taylori*). This snake is a constrictor and eats small mammals, birds, lizards, snakes, and bird and reptile eggs.

Pine Marten (*Martes americana*) - The pine martin is closely tied to old growth spruce-fir forests, particularly the down woody component of these forests. Large snags and logs are required for nesting and feeding. This species preys on small mammals and birds. Marten require large areas of connected habitat. They are very susceptible to trapping. One of the greatest threats is the construction of roads into their habitat. Surveys are currently being done to gather population information on the Grand Mesa.

Southwestern Willow Flycatcher (*Epidonax trailii extimus*) - Willow flycatchers are closely associated with riparian habitats such as willow or alder thickets along streams, on the shores of ponds or bordering marshy areas. They are also found in the brushy margins of fields, along mountain streams and in shrubby floodplain areas. This species is not believed to occur on the Grand Mesa National Forest, however potentially suitable habitat is found along scattered riparian areas on the Forest.

Ferruginous Hawk (*Buteo regalis*) - This hawk inhabits grassland prairies, plains and broken hills and is found around the base of Grand Mesa. No nests have been identified on the Forest. Breeding pairs are extremely sensitive to human activity near their nests and will easily abandon their nests if disturbed before eggs hatch. Loss of native grassland and shrubland habitat has resulted in the decline of this species.

Flammulated Owl (*Otus flammeolus*) - This owl can occur in mixed forests of ponderosa pine, oak, aspen, spruce and fir up to 10,000 feet in elevation. Nests occur in natural or woodpecker excavated cavities. This owl avoids stands that have been cut over, suggesting it requires more mature stands.

Western Burrowing Owl (*Athene cunicularia*) - This small owl is commonly associated with abandoned and active prairie dog colonies. No nests have been found on the Forest to date. This owl is very sensitive to disturbance near its nesting hole in the ground.

Three-toed Woodpecker (*Picoides tridactylus*) - This woodpecker prefers dead standing trees, particularly where fire has destroyed large stands. It feeds on these dead trees for wood boring insects. Population declines have been linked to snag habitat loss from harvesting and control of forest fires, which stifles creation of new habitat.

Boreal Owl (*Aegolius funereus*) - The boreal owl is closely associated with high elevation spruce-fir and lodgepole pine forests. The boreal owl nests in cavities made by woodpeckers or in natural holes in snags. This species occurs on the Grand Mesa. A study is currently underway on Grand Mesa, to gather population information for this species.

***Effects of Off-route travel by all motorized vehicles.
Off-route travel by motorized trail vehicles.***

Plant, amphibian and reptile species have the greatest potential for having adverse effects from off-route motorized travel. Plants can be directly impacted, which can result in loss of individual plants, and which can effect changes in habitat for plant, amphibian and reptile species. (See impacts described in Vegetation and Wildlife Habitat sections above.)

Colorado River cutthroat trout habitat has been dramatically degraded by the loss of spawning/rearing habitat and decline of natural waterways. Off-route motorized travel has the potential to adversely impact trout habitat (see effects described under Fisheries, Aquatic and Riparian Resources section).

Interior forest species like the pine marten and boreal owl could continue to have habitats disturbed by off-route motorized travel, further limiting the availability of effective security habitat, directly influencing populations.

Species requiring solitude (i.e. northern goshawk and boreal owl), especially during nesting and young rearing periods could be affected during these critical times by random off-route motorized travel.

Closures, yearlong or during critical time periods, would be necessary to prevent any impacts to any given threatened, endangered or proposed species or its habitat.

***Effects of Travel by motorized vehicles on designated routes,
(including and excluding snowmobiles traveling on snow).***

A system of motorized travel on designated routes would allow for planned avoidance of susceptible species/habitats totally, or during critical reproductive periods. Known populations of threatened, endangered or proposed species and their habitats could be avoided so that travel management activities will have no adverse effect on the species or their habitats. Disturbance to sensitive species or species of concern or their habitat can be avoided or minimized to reduce any adverse effects. Further mitigation measures could be applied if needed.

Also see *Effects of Travel on designated routes* discussion in the Wildlife Habitat section above.

Effects of Closure to motorized travel.

No effects from motorized travel on threatened, endangered or sensitive species would occur. Mitigation such as monitoring known populations/habitat and closing areas during critical time periods would prevent any potential impacts to sensitive species or species of special concern.

Also see *Effects of Closure to motorized travel* discussion in the Wildlife Habitat section above.

8. Livestock Management

***Effects of Off-route travel by all motorized vehicles.
Off-route travel by motorized trail vehicles.***

Off-route motorized travel can impact livestock management in several ways. Vegetation/forage can be impacted as described above. Motorized vehicle use along livestock paths can widen these routes (potentially impacting soil and vegetative resources). If motorized use along livestock paths is extensive, livestock may develop and use alternative routes. Conversely, livestock could use travel routes developed by motorized users, which could result in undesirable grazing/movement patterns. Impacts on permitted livestock usually occur as motorized vehicles pass through or by the animals. These impacts are normally short-term and very localized.

Impacts from off-route motorized travel to livestock management could be lessened through user education/information programs.

***Effects of Travel by motorized vehicles on designated routes,
(including and excluding snowmobiles traveling on snow).***

Use on and location of designated routes would be considered in designing allotment management (a joint effort between permittees and the Forest Service), so that potential impacts from motorized travel could be reduced.

Grazing permittees would be authorized to continue any off-route motorized activities which are required to administer their permitted use, under a special authorization.

Livestock grazing and snowmobile use do not occur at the same time on the Grand Mesa National Forest so there would be impacts to livestock from snowmobile use.

Effects of Closure to motorized travel.

There would be no impacts to livestock management from public motorized travel under this alternative. Non-motorized users could still cause disturbances to livestock, vegetation and soil resources, as previously described. These impacts could be lessened through user information/education programs.

Closure to motorized travel would relate only to public motorized travel. If grazing permittees require motorized access to administer their allotments, this use would be allowed under a special travel authorization.

9. Recreation

Effects of Off-route travel by all motorized vehicles. Off-route travel by motorized trail vehicles.

Visual Quality

Visual scars from ruts, erosion, bog holes and tree removal could result from off-route motorized travel. Multiple tracks or paths around reservoirs and other bodies of water would reduce vegetative cover in these areas and lessening the natural forest appearance.

Motorized User Experience

The spectrum of motorized use experiences would continue under these options. Motorized users would be able to use the existing system and nonsystem roads and trails. Additional travel ways could continue to evolve as the anticipated use increases. Off-route travel would be available to motorized users. Nonsystem routes would not be maintained by the Forest Service, which could effect the ease with which motorized users could travel through the Forest. On the other hand, this could provide adventure for those who enjoy exploring unmarked and unmapped areas. There would be no separation of motorized uses.

Non-motorized User Experience

Recreation experience settings such as walk-in fishing lakes, hunting without the noise of motorized activity, or a sense of remoteness or solitude would decrease in availability under this option.

Winter Recreation Experience

There could be an increase in conflicts between motorized (snowmobiles) and non-motorized (cross-country skiers) use under this option because motorized activity would not be restricted. Both types of activities occur on similar terrain.

Hunting and Fishing Experiences

Hunters desiring a non-motorized experience could be negatively impacted by the allowed off-route use of motorized vehicles. The noise and increased number of hunters could reduce hunter success. Hunters who desire motorized access into areas they could not normally get to and those who like to use ATVs to retrieve downed game would be positively impacted by this travel management option.

Disabled User Experience

The ability to use motorized vehicles off-route would enhance the opportunities for mobility impaired individuals to use the Forest if they use motorized vehicles.

Forest Visitor Safety

Off-route travel and travel along nonsystem, unmaintained routes increases the risk to Forest visitors. The chance of mechanical problems or accidents is increased off maintained routes. Interactions between different types of users which could result in accidents is also increased on routes where use is not segregated or anticipated.

*Effects of Travel by motorized vehicles on designated routes,
(including and excluding snowmobiles traveling on snow).*

Visual Quality

These options would minimize visual impacts as all motorized travel would be on designated routes which would receive routine maintenance. The trails not designated would be allowed to recover naturally over time. Visual impacts in visually sensitive areas (e.g. along the Grand Mesa Scenic and Historic Byway) would be rehabilitated where natural recovery would be too slow or inadequate.

Motorized User Experience

Restricting motorized travel to designated routes would eliminate the opportunity to travel off-route using motorized vehicles. However, designated routes could form networks and loops which would provide for motorized experiences. Some routes could be designated for different users, reducing conflicts and improving user safety.

Non-motorized User Experience

Non-motorized user experiences could be enhanced by the options of restricting motorized use to designated routes. This could reduce the noise and eliminate the presence of motorized vehicles off-route. The nonsystem routes not designated for motorized use could be available to non-motorized users without motorized conflicts. Non-motorized routes could also be designated, providing additional areas for these users.

Winter Recreation Experience

There would be a decrease in conflicts between motorized (snowmobiles) and non-motorized (cross-country skiers) use under this option where each activity could be restricted to designated routes or areas. The potential for conflicts between motorized and non-motorized winter recreation would remain the same where both types of activities occur on similar terrain.

Hunting and Fishing Experiences

The same restrictions of travel only on designated routes would apply during the hunting season. Hunters desiring or needing more motorized access than would be provided by this option may choose to not hunt on the Grand Mesa or they can choose to hunt by utilizing one of the designated motorized roads and trails that provide access to the backcountry. Hunters that prefer non-motorized hunting would find this hunting opportunity in areas away from roads and trails. Retrieval of down game off designated roads and trails in travel restricted areas would be by horseback or human back. Hunting access for hunters not physically able to pack game out would decrease with this option. Physical limitations due to age, high altitude and general overall physical fitness will be a factor for hunters who must pack out their game by horse or on foot.

Disabled User Experience

The opportunity for travel off-route would be eliminated, however the improvement of motorized networks and loop routes on designated routes would still provide for motorized experiences for mobility impaired users.

Forest Visitor Safety

User safety would be increased because people would be using maintained designated routes rather than nonsystem routes.

Effects of Closure to motorized travel.

Visual Quality

Closing an area to motorized travel will reduce visual impacts of motorized travel. Closed routes and areas would be allowed to recover naturally over time. Visual impacts in visually sensitive areas would be rehabilitated where natural recovery would be too slow or inadequate.

Motorized User Experience

Opportunities for motorized travel would be eliminated in areas closed to motorized travel.

Non-motorized User Experience

Opportunities for non-motorized use would be increased in areas closed to motorized use. Conflicts between these types of use would be eliminated.

Winter Recreation Experience

Opportunities for snowmobiling would not be available under this option. Cross-country skiing experience would be enhanced because potential conflicts with snowmobiles would not occur.

Hunting and Fishing Experiences

Hunters desiring a more primitive experience would be able to find this in areas closed to motorized travel. Hunters wanting to use motorized vehicles would have to relocate to areas allowing this opportunity.

Disabled User Experience

Areas closed to motorized use will not be accessible to most mobility impaired users. Only those who use non-motorized means of transportation (horse, mountain bike) would be able to use these areas.

Forest Visitor Safety

Non-motorized user safety would be enhanced along designated routes for non-motorized use. These routes would be maintained for the desired users. Eliminating motorized travel would remove the potential hazards of having motorized and non-motorized users in the same area. User safety for non-motorized use off designated routes would not be affected.

10. Roads and Trails

***Effects of Off-route travel by all motorized vehicles.
Off-route travel by motorized trail vehicles.***

In areas with off-route travel, enforcement of the requirement that travel shall not damage or unreasonably disturb the land, wildlife or vegetative resources is difficult. As noted in many of the above sections under environmental consequences, impacts to the land, wildlife or vegetative resources are probable with travel off route. With a very large, remote area, it is very unlikely that an offender would be caught while causing resource damage.

Where unacceptable resource impacts occur on nonsystem trails, the benefiting function (e.g. watershed, wildlife) would have to fund the repair or rehabilitation of the resource. Road maintenance appropriated funds are available to physically close nonsystem roads by waterbars, ripping, and seeding, but trail maintenance funds cannot be used to close and rehabilitate nonsystem trails.

***Effects of Travel by motorized vehicles on designated routes,
(including and excluding snowmobiles traveling on snow).***

Nonsystem routes would be closed and watershed rehabilitation needs on nonsystem trails would be completed over time. Road and trail maintenance would be focused on designated routes. Routine maintenance to ensure drainage structures are working properly and seasonal closures to prevent route use during wet soil conditions would also protect roads and trails.

With no areas open to off-route travel, there would be more probability for compliance as a result of user education. Enforcement efforts would be aided since travel off-route would be a violation.

Effects of Closure to motorized travel.

Effects to road and trail maintenance and signing and mapping would be the same as described above, except that no motorized activities would be allowed or benefited.

11. Special Uses

A special use permittee (e.g. water users, loggers, livestock permittees, oil and gas operators) would be granted the necessary access provided for in their special use permit, regardless of the travel management option applied to a given area. However, the responsibility for construction and maintenance of that access will vary depending on the adopted travel management alternative.

***Effects of Off-route travel by all motorized vehicles
Off-route travel by motorized trail vehicles.***

Where public access is not restricted to designated routes, the special use permittee would be responsible for their commensurate share of construction and/or maintenance of their permitted access.

In the case of special use permits for dams and reservoirs, the Forest land upon which dams and reservoirs are constructed, operated and maintained is available for other uses, including recreation such as fishing and utilization of dams for trails. The Forest cannot completely absolve the owners/operators of liability. If a trail accessing a reservoir is a system trail, managed by the U.S. Forest Service; the responsibility for the safe operation and maintenance of that trail falls upon the Forest Service. In addition, the road or trail must be designed, constructed and maintained to protect the structural integrity of the dam and meet safety requirements for the dam.

***Effects of Travel by motorized vehicles on designated routes,
(including and excluding snowmobiles traveling on snow).***

Holders of special use permits and other authorizations would continue to have access to their permitted operations. Where motorized public access is restricted on the permitted routes, the permittees would be responsible for construction and maintenance costs. Permittee access would have special travel authorization. Access to reservoirs by water users would be on specified route(s) (to each reservoir). Where access is not closed to the public, no special travel authorizations for access would be required by the permittees.

Where only special use permittees are allowed to use motorized vehicles by permit, they would have their travel authorization in or on their vehicle to show they are authorized to be in a restricted area.

Effects of Closure to motorized travel.

Any motorized access required to administer a special use permit would be allowed under special travel authorization. Any maintenance and/or construction costs associated with the required motorized access would be the responsibility of the permittee.

Where only special use permittees are allowed to use motorized vehicles by permit, they would have their authorization in or on their vehicle to show they are authorized to be in a restricted area.

B. Area Specific Consequences

Brief descriptions of the 18 planning areas can be found in Appendix D. For many of the planning areas, the consequences of the five travel management options would be the same as described in the section above. The following discussion describes only additional or unique environmental consequences for a given planning area.

1. Battlement Mesa

Unique effects of travel management options on the Battlement Mesa area include:

- Off-route motorized travel is not physically possible in the Sunnyside portion, due to steep terrain. If this portion of the area were to remain open to motorized travel it may encourage users to attempt motorized travel which could result in soil erosion on the steep slopes and negatively impact the bighorn sheep herd which lives in this area. Changing travel management to "travel only on designated routes" with the 1.3 miles of the Sunnyside road (the only existing route) being designated open would not result in any additional impacts in this area. Closing this area to motorized travel would eliminate the opportunity for motorized travel from Plateau Valley to DeBeque along the Sunnyside road.
- Continuing and enforcing the "travel only on designated routes" management in the Battlements portion of the area would protect big game transition, calving and winter ranges. It would also reduce some of the motorized versus non-motorized recreational use conflicts. Allowing off-route motorized travel will increase conflicts between motorized and non-motorized users, result in increased erosion on the steep slopes, and negatively impacting big game by reducing habitat effectiveness in the area. Closing the Battlement portion to motorized travel would result in a loss of motorized recreation opportunities in this area.

2. Mud Hill/Road Gulch/Hightower

Unique effects of travel management options on the Mud Hill/Road Gulch/Hightower area include:

- Big game winter range occurs in this area. A closure to motorized vehicles during the winter protects big game during this critical time period. Any change that would allow motorized travel during the time animals are on the winter range could severely impact these animals by causing increased stress and possibly forcing animals off their preferred range onto poorer quality range. The result could be an increase in mortality of the animals.

3. Porter

Unique effects of travel management options on the Porter area include:

- Because relatively few motorized travel routes (system and nonsystem) exist in this area, there is a higher concentration of wildlife and native plant communities due to higher habitat effectiveness. Off-route motorized travel would result in development of new travel routes, potentially decreasing habitat effectiveness. Restricting motorized travel to designated routes would not result in decreased habitat effectiveness and could increase habitat effectiveness where nonsystem routes may

be rehabilitated. Closing the area to motorized travel would increase habitat effectiveness.

4. Ruth Mountain

Effects of travel management options on this area are not unique from those described in the General Consequences of Area-wide Management Options section on pages 38 through 54.

5. Willow Park/Plateau Creek

Unique effects of travel management options on the Willow Park/Plateau Creek area include:

- This area, as with the Porter area, has higher concentrations of wildlife due to the greater amount of security habitat resulting from limited motorized travel routes. Much of this area is currently managed with motorized travel restricted to designated routes. If this management was changed to allow off-route motorized travel, habitat effectiveness would be negatively impacted through potential new route development. Habitat effectiveness within this area could be improved if the entire area is managed for motorized travel only on designated routes, since areas of critical habitat would be avoided by designated system routes. Closing the area to motorized travel would increase habitat effectiveness.

6. Flat Tops

Unique effects of travel management options on the Flat Tops area include:

- Because this area is currently managed for motorized travel only on designated routes, and the number of designated routes is small, the existing habitat effectiveness in the area is high, with a correspondingly high wildlife concentration. Because the terrain is very gentle in this area, the large amount of currently undisturbed habitat is the major component of habitat effectiveness. If this area were managed to allow off-route motorized travel, habitat effectiveness would be negatively impacted as a result of habitat fragmentation by new routes. Maintaining the area as a "travel only on designated routes" would maintain the existing habitat effectiveness. Closing the area to motorized traffic would increase habitat effectiveness.

7. Upper Leon

Effects of travel management options on this area are not unique from those described in the General Consequences of Area-wide Management Options section on pages 38 through 54.

8. Leroux Creek Drainage to Marcott Creek Road

Unique effects of travel management options in this area include:

- Access to reservoirs for water users occurs on routes currently designated as open. There would be no impacts to water users by continuing existing travel management. If off-route motorized travel were allowed in this area, additional impacts could occur around reservoir shorelines and new routes could develop between reservoirs. Closing this area to motorized travel would shift the maintenance requirements for reservoir access routes from the Forest Service to the water users. Water users would still have access to all reservoirs under special travel authorizations.

9. Marcott Creek to Hwy. 65

Unique effects of travel management options on the Marcott Creek to Hwy. 65 area include:

- Off-route motorized travel could impact relic native wetland plant communities resulting in their decline or loss. Restricting motorized travel to designated routes which would avoid these plant community sites would lessen this potential.
- The high concentration of reservoirs in this area require water users access. Access is along both system and nonsystem routes. Maintaining the existing travel management would not effect water user access. Restricting motorized travel to designated routes could result in limiting water user access to specified routes but access would continue to be provided to each reservoir. If an access route is not designated open to the public, maintenance responsibility for that access falls to the water users. Water users would be assured access to all reservoirs through special travel authorizations. Closing the area to motorized travel would shift all reservoir access maintenance responsibilities to water users and all motorized access would be under special travel authorization.

10. Highway 65 and Trickle Park Road Corridor

Effects of travel management options on this area are not unique from those described in the General Consequences of Area-wide Management Options section on pages 38 through 54.

11. Highway 65 to Alkali Basin, Below the Rim

Unique effects of travel management options in this area include:

- Access for water users to reservoirs is not restricted under the current travel management regime. Restricting motorized travel to designated routes could impact water users if the access routes they use are not designated as open to public motorized travel. Access would not be restricted to water users, but may be limited to specified routes, and route maintenance responsibilities may shift to water users. Water user access would be under special travel authorizations. Closing this area to motorized use would have similar impacts to water users.

12. Lands End and Indian Point

Unique effects of travel management options on the Lands End and Indian Point area include:

- Off-route motorized travel could impact unique and relic native plant communities resulting in their decline or loss. Restricting motorized travel to designated routes which would avoid these plant community sites would lessen this potential.
- The Flowing Park (Indian Point) closure was initiated to enhance elk security cover with the implementation of the 1984 travel management plan. Because this area has gentle slopes which do not add to security habitat, the timber stands near Chambers Reservoir, the narrow mesa top between the rims above Alkali Basin and Kannah Creek Basin (approximately 1 mile) and the motorized closure of this area allow it to be a security area for elk, deer, black bear and mountain lions. This area currently receives non-motorized use because of the gentle terrain. Use is heavy during hunting seasons. If on or off-route motorized travel was allowed in this area this security habitat would be lost.
- The closure to motorized travel except for snowmobiles traveling over snow, currently allows a unique experience for non-motorized users in the Indian Point area. The

level terrain would provide an ideal opportunity for a hiking or mountain bike trail along the rim.

13. Alkali/Kannah Creek/Whitewater Basin

Unique effects of travel management options in the Alkali/Kannah Creek/Whitewater Basin area include:

- Big game winter range occurs in the lower elevations of this area, near the Lands End Road. A winter motorized closure in this area prevents snowmobile activity to protect wintering animals. Any change that would allow motorized activity in this area while animals are on the winter range could detrimentally impact these animals by causing increased stress, relocation to undesirable habitat and increased mortality.

14. Mesa Lakes

Effects of travel management options on this area are not unique from those described in the General Consequences of Area-wide Management Options section on pages 38 through 54.

15. Coon/Bull/Cottonwood

Unique effects of travel management options in the Coon/Bull/Cottonwood area include:

- A large concentration of reservoirs occur in the upper Bull and Cottonwood drainages. Access for water users to reservoirs is not restricted under the current travel management regime. Restricting motorized travel to designated routes could impact water users if the access routes they use are not designated as open to public motorized travel. Access would not be restricted to water users, but may be limited to specified routes, and route maintenance responsibilities may shift to water users. Water user access would be under special travel authorizations. Closing this area to motorized use would have similar impacts to water users.
- Relic soil areas, high water tables and saturated soils are scattered throughout the area. Off-route travel would have the most impact on these areas. Restricting travel to designated routes would attempt to avoid these areas. Closing this area to motorized travel would eliminate motorized travel impacts on these soils.

16. Horse Mountain/Bonham

Unique effects of travel management options in the Horse Mountain/Bonham area include:

- Potential impacts to water users access to reservoirs in the upper Big Creek drainage are similar to impacts described for other areas with concentrations of reservoirs.

17. Sheep Flats/Young Lake

Unique effects of travel management options in the Sheep Flats/Young Lake area include:

- Parallel routes separated by a ridge and connected by road extensions on both ends of the ridge and dissecting the ridge fragment security habitat within this area. These routes cross perennial streams and wetlands. The ridge connection wanders through spruce/fir vegetation and stays wet nearly year round. All routes are rutted and have places where spurs occur to circumvent impassable sections.

- Off-route travel and travel along nonsystem routes through wet areas is resulting in loss of vegetation and drying of these sites. Amphibian habitat could be lost as a result. Streambanks have been broken down and crossings are becoming wider and shallower.
- Restricting motorized travel to designated routes would reduce the impacts to soil and water resources and improve habitat effectiveness by reducing the motorized traffic in the area. Closing this area to motorized travel would reduce the impacts further.

18. Fruita Division

Unique effects of travel management options in the Fruita Division area include:

- Off-route motorized travel could impact the relic willow and wetland habitats as well as the waterfowl habitat located in this area. Retaining the "travel only on designated routes" management would continue to protect these habitats. Closing the area to motorized travel would have the same effect as restricting travel to designated routes.

C. Specific Road and Trail Consequences

The environmental consequences of the 13 travel route options at the second level of decision have generally been described under the General Consequences of Area-wide Management Options section. Travel routes that are designed and maintained for specific uses will have the impacts as described under the "Effects of Travel by motorized vehicles on designated routes,..." discussions. Non-motorized travel on routes designed and maintained for non-motorized travel would have similar effects.

Motorized and non-motorized travel on routes that developed as a result of repeated use, as opposed to being designed and maintained as part of a transportation system, have impacts similar to those described in the "Effects of off-route travel by all motorized vehicles and off-route travel by motorized trail vehicles."

Closing and/or obliterating roads or trails result in impacts similar to those described in the "Effects of closure to motorized travel" discussions.

The following tables list the specific roads and trails that would have changes in travel management under the different alternatives. Unique effects of management changes are identified where they will occur, otherwise effects of different management are as described under the General Consequences of Area-wide Management Options section.

TABLE 8. Low Standard System Roads with proposed changes in travel management

| Road Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
|------------------------|--------|----------------|--------|--------------------|--------------------|-----------------|
| Flowing Park Spur 1E | 109.1E | 1.10 | O | O | C ¹ | O |
| Flowing Park Spur 2A | 109.2A | 0.80 | O | C ¹ | O | O |
| Flowing Park Spur 2B | 109.2B | 1.50 | O | C ¹ | C ¹ | O |
| Flowing Park Spur 2C | 109.2C | 0.62 | O | C ¹ | C ¹ | O |
| Weir & Johnson Spur 1B | 126.1B | 1.32 | O | C ^{1,2,3} | C ^{1,2,3} | O |
| Hay Park Spur A | 129.1A | 0.50 | C | MT ⁴ | MT ⁴ | MT ⁴ |
| Ryan | 129.1G | 1.43 | C | C | MT ⁴ | MT ⁴ |
| Prebble Reservoir | 129.1H | 0.25 | C | C | MT ⁴ | MT ⁴ |
| Eureka Reservoir #2 | 129.1I | 0.90 | C | C | MT ⁴ | MT ⁴ |
| Silver Lake | 256 | 0.8 | O | C ¹ | O | O |

O = Open to motorized and non-motorized traffic.

C = Closed to motorized traffic, open to non-motorized traffic.

MT = Motorized Trail, open to motorized trail vehicles and non-motorized traffic.

Consequences:

¹ Loss of motorized access to area. Impact is minimal due to length of spur or parallel route.

Non-motorized access would continue.

² Eliminate full-sized vehicle access across dam which could result in structural weakening of the dam.

³ Reduce road density in area which may increase habitat effectiveness.

⁴ Motorized recreation opportunity would be improved by using section of closed road to provide linkages between existing motorized trails, to develop loop routes.

| Road Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
|---------------------------|--------|----------------|--------|-------------------|-------------------|------------------|
| Pipeline | 110 | 3.10 | O | C ¹ | C ¹ | O |
| Point Cow Camp | 112.2B | 0.80 | O | C ² | O | O |
| Pitcairn | 112.2C | 0.50 | O | MT ³ | O | O |
| Atkinson Reservoir | 114 | 4.70 | O | C ⁴ | O | O |
| Forest Lake Rd. | 124 | 0.40 | O | C ^{4,5} | C ^{4,5} | O |
| Colby Horsepark Reservoir | 127.2A | 0.50 | O | C ^{5,6} | C ^{5,6} | O |
| Mid-Griffith Lake | 249 | 0.90 | O | O | C ⁴ | O |
| Forty Acre Lake Rd. | 256.1A | 0.40 | O | C ⁴ | O | O |
| Horse Mtn. | 258.1C | 3.10 | O | NM ⁷ | MT ⁸ | O |
| Bureau Pipeline | 259 | 11.00 | O | MT ³ | O | O |
| Cottonwood Cow Camp | 259.1A | 0.30 | O | C ² | MT ³ | O |
| Wagon Park | 263.1A | 1.50 | O | O | MT ^{8,9} | O |
| Colorado Ute Powerline | 264 | 7.40 | C | MT ¹⁰ | MT ¹⁰ | MT ¹⁰ |
| Powerline Spur A1 | 264.A1 | 0.50 | C | MT ¹⁰ | MT ¹⁰ | MT ¹⁰ |
| Powerline Spur A2 | 264.A2 | 0.90 | C | MT ¹⁰ | MT ¹⁰ | MT ¹⁰ |
| Powerline Spur A3 | 264.A3 | 1.70 | C | MT ¹⁰ | MT ¹⁰ | MT ¹⁰ |
| Powerline Spur A5 | 264.A5 | 3.40 | C | MT ¹⁰ | MT ¹⁰ | MT ¹⁰ |
| Buzzard Cow Camp | 265.2D | 0.70 | O | C ² | O | O |
| Dry Owens Creek | 268.1A | 1.75 | O | O | MT ^{8,9} | O |
| Road Gulch | 270.1A | 1.00 | O | MT ^{8,9} | MT ^{8,9} | O |
| Labbe Res. | 279.13 | 3.10 | O | C ⁴ | C ⁴ | O |
| South Sheep Creek | 281.1A | 1.90 | O | O | MT ⁹ | O |

O = Open to motorized and non-motorized traffic.

C = Closed to motorized traffic, open to non-motorized traffic.

MT = Motorized Trail, open to motorized trail vehicles and non-motorized traffic.

NM = Non-motorized Trail, open only to non-motorized traffic.

Consequences:

¹ Closing this road to motorized travel would improve habitat effectiveness in the Hwy 65 to Alkali Basin area, in combination with other proposed route travel management changes, to create a larger area with no motorized routes.

² Loss of motorized access to area. Impact is minimal due to length of spur. Non-motorized access would continue.

³ Closing the road to full-sized vehicles would change the recreational experience available at this reservoir.

⁴ Closing the road to motorized vehicles would change the recreational experience available at this reservoir from motorized to non-motorized. A negative impact on those desiring motorized access and a positive impact to non-motorized users.

⁵ Loss of motorized access to area. Impact is minimal due to length of spur. Non-motorized access would continue.

⁶ Closing road will reduce sediment produced at stream crossing as a result of motorized travel.

⁷ Creating a non-motorized trail from a primitive road would change the recreational experience in this area. Positive change for non-motorized users, negative change for motorized users.

⁸ Changing motorized use to allow only motorized trail vehicles would result in less potential impacts to the roadbed which would also reduce potential sediment yield from the roadway.

⁹ Changing motorized use to allow only motorized trail vehicles would reduce safety hazard of full-sized and trail vehicles on the same route. Trail would provide linkage between existing motorized trails to form loop.

¹⁰ Motorized recreation opportunity would be improved by using section of closed road to provide linkages between existing motorized trails, to develop loop routes.

TABLE 10. System Trails with proposed changes in travel management

| Trail Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
|-------------------|--------|----------------|--------|-------------------|---------------------|-----------------|
| Lake-of-the-Woods | 506 | 5.90 | MT | NM ^{1,2} | NM ^{1,2} | MT |
| Lily Lakes | 509 | 0.50 | MT | NM ^{1,3} | NM ^{1,3} | MT |
| Crum Reservoir | 511 | 3.40 | NM | MT ⁴ | MT ⁴ | MT ⁴ |
| Salt Creek | 514 | 3.20 | MT | NM ⁵ | NM ⁵ | MT |
| Greenwood | 721 | 1.80 | MT | NM ² | MT | MT |
| Blue Grouse | 722 | 4.30 | MT | NM ^{1,5} | NM ^{1,5} | MT |
| Bull and Brown 1A | 724.1A | 2.00 | MT | MT | NM ^{1,6} | MT |
| Bull and Brown 1B | 724.1B | 1.80 | MT | NM ^{1,6} | MT | MT |
| Point Camp | 725 | 3.00 | MT | NM ^{1,6} | MO ^{1,6,7} | MT |
| Drop Off | 726 | 2.20 | MT | NM ^{1,6} | MO ^{1,6,7} | MT |
| Cache Creek | 903 | 1.40 | MT | MT | NM ⁸ | MT |
| Battlement Trail | 527 | 1.00 | MT | MT | NM ⁸ | MT |

MT = Motorized Trail, open to motorized trail vehicles and non-motorized traffic.

NM = Non-motorized Trail, open only to non-motorized traffic.

MO = Motorcycle Trail, open to motorcycles and non-motorized traffic.

Consequences:

¹ Changing to non-motorized travel will reduce impacts to soil and water resources, improve wildlife habitat effectiveness.

² Recreational experience will be changes from motorized to non-motorized. Positive for non-motorized users, negative for motorized users.

³ Loss of motorized access to area. Impact is minimal due to length of spur. Non-motorized access would continue.

⁴ Motorized route would provide access to BLM land north of Forest. All other routes in the area would be non-motorized so impact of motorized travel on habitat effectiveness would be minimal.

⁵ This trail connects with routes north of the Forest where no public right-of-way occurs. Changing these trails to non-motorized would reduce the chance of public trespass. Alternate motorized access to the area exists, so there will be no loss to motorized recreation.

⁶ Part of plan to provide motorized and non-motorized recreation experiences in the Hwy 65 to Alkali Basin area, while reducing impacts to soil and water resources and providing wildlife security habitat.

⁷ A single track motorized trail experience would be provided improving the mix of recreational experiences available on the Forest.

⁸ This would eliminate a motorized trail (on the Grand Mesa National Forest) connecting to a non-motorized trail (on the White River National Forest) reducing the chance of noncompliance travel on the White River National Forest.

D. Environmental Consequences of Alternatives

This section contains a discussion of the cumulative environmental effects of four alternative combinations of area-wide and road/trail management options.

1. Soils and Water

Alternative 1 (No Action)

Within the areas open to motorized travel off roads and trails (173,200 acres), the present trends of route encroachment would continue to have the effects described for off-route motorized travel management options, above. Soil erosion and devegetation would continue or accelerate. Where indiscriminate use occurs, soil areas could be rutted and compacted in sub-irrigated meadows, and along stream and lake margins. Water quality would gradually be more impacted by siltation and point source pollution.

Impacts to soil and water resources in areas where motorized use is restricted to designated routes and areas closed to motorized use would remain the same.

Cooperative agreements with user groups could be established to provide cost effective resource protection, reconstruction and maintenance work that would reduce some existing impacts to soil and water resources..

Alternative 2 (1991 Travel Plan)

This alternative would be able to accommodate a larger number of users without a corresponding increase in resource deterioration. More travel would be directed to system routes that are constructed and maintained to better withstand the use, or to locations which are already dedicated to travel ways. These system routes will have drainage and design features which would reduce impacts to soil and water resources associated with road and trail use. Cooperative agreements with user groups would be established to provide cost effective resource protection, construction and maintenance.

Of the 86,800 acres open to off-route travel, 35,200 acres would permit only trail vehicles (such as ATVs) off route, and the remaining 51,600 acres would permit all vehicles (e.g. pickups, 4WD) off-route, as long as resource damage does not occur.

The area open to off-route travel would be reduced by 86,400 acres from the current Travel Plan (Alternative 1). Those areas remaining open to off-route travel would have the same risks as noted for Alternative 1 above.

Alternative 3 (Preferred Alternative)

The results of restricting motorized travel to designated routes would be less impacts to soil and water resources of the Grand Mesa National Forest, as a whole. Designated routes would be operated, maintained, constructed and repaired to handle the anticipated traffic. Routine maintenance to ensure drainage structures are functioning properly and seasonal closures during wet soil conditions would minimize soil erosion, siltation and water quality degradation resulting from traffic use.

On the designated roads and trails where existing resource damage is occurring or where there is potential for damage, these roads or trails would be relocated or redesigned to reduce impacts to soil and water resources and regular maintenance will be performed. Cooperative agreements with user groups would be established to provide cost effective resource protection, construction and maintenance.

There is a potential that some damage to soil and water resources may occur in the selected areas where off-route travel by motorized trail vehicles is allowed during hunting seasons for downed game retrieval. These impacts are anticipated to be localized and minimized since game retrieval should result in only one or two passes over the same path. Also, the areas where off-route game retrieval would be allowed are areas with more level terrain and have soils which are less susceptible to impacts from off-route travel (See Map Figure 5, page 24). Through improved user ethics education and peer pressure the majority of off-route travel for game retrieval should be done so that resource damage is minimized. If damage does occur as a result of off-route motorized travel, violators can be cited and fined under current CFR authorities.

Alternative 4 (TMW Proposal)

Under this alternative, all recreational uses would be encouraged to confine their activities to established routes (both existing system and nonsystem) that would be operated, maintained, constructed and repaired to handle the anticipated traffic so as to minimize soil erosion, siltation and water quality degradation. Because more miles of roads and trails will be open to motorized use in this alternative over the others, overall impacts to soil and water would not be reduced at the same rate as under other action alternatives.

On established roads and trails where existing resource damage is occurring or where there is potential for damage, the roads or trails could be relocated, stream crossings hardened and designed to reduce sediment loading, bridges constructed and regular maintenance performed. Areas would be rehabilitated and closed only if all other remedies failed. Cooperative agreements with user groups would be established to provide cost effective resource protection, construction and maintenance.

2. Vegetation

Alternative 1 (No Action)

Impacts to vegetation in areas open to off-route motorized travel are expected to increase as motorized use increases. Where motorized travel is restricted to designated routes and where no motorized use is allowed, impacts to the vegetative resource are expected to remain the same.

Alternative 2 (1991 Travel Plan)

This alternative will have more area where motorized travel is restricted to designated routes than Alternative 1. As a result, there would be less impacts to vegetative resources than under Alternative 1.

Alternative 3 (Preferred Alternative)

The least impacts to the vegetative resource would occur under this alternative since motorized travel would be restricted to designated routes for the majority of the year. Off-route downed game retrieval has the potential to result in some localized damage to vegetation, especially during wet soil conditions. As with impacts to soil and water resources, the impacts to vegetation are anticipated to be localized as a result of good user ethics and few passes in any given area. Enforcement of existing resource protection regulations should also limit impacts to vegetative resources.

Alternative 4 (TMW Proposal)

Impacts to vegetative resources would be reduced over Alternatives 1 and 2 since all travel would be encouraged to remain on established routes. Impacts to vegetation are not expected to diminish as quickly as Alternative 3, because off-route travel for downed game retrieval will be allowed over most of the Forest under Alternative 4.

3. Fisheries, Aquatic and Riparian Resources

Alternative 1 (No Action)

The current travel management would continue under this alternative. Where off-route motorized travel is allowed, impacts to fisheries, aquatic and riparian resources would continue, and are expected to increase as motorized use increases.

Some stream fisheries would be adversely affected by additional fishing pressure resulting from the anticipated increase in motorized access. Some of the 100 lakes/reservoirs currently accessible by motorized vehicles would also see increased use with associated shoreline impacts. Four (4) lakes or reservoir fisheries that are not accessed by motorized vehicles would remain unaffected.

Alternative 2 (1991 Travel Plan)

With more area (83,800 acres more than Alternative 1) being restricted to motorized travel only on designated roads and trails, stream fisheries habitat would be more protected. A total of eight lakes/reservoirs would no longer have motorized access, as a result of nonsystem routes being closed, which would lessen the shoreline impacts at these locations.

There is a potential that some more accessible fisheries may receive increased use (and impacts) as a result of the increased area with travel restrictions. This potential could be lessened by improving and maintaining designated routes to established fisheries and advertising the improvements and alternative fishing opportunities.

Alternative 3 (Preferred Alternative)

Under this alternative, impacts to fisheries, aquatic and riparian habitat would be minimized by restricting all motorized travel to designated roads and trails. Impacts from off-route motorized travel would be eliminated, and impacts from motorized travel on designated routes would be lessened by well designed, constructed and maintained drainage features and stream crossings.

This preferred alternative would provide the least fishing pressure on remote stretches of mountain streams due to no acres being open to off-route motorized travel. Access to 28 lake/reservoir fisheries would be closed to motorized vehicles. Motorized access to 76 lakes/reservoirs would continue. See Appendix F for a listing of which lakes would have changes in mode of access and the access distance.

As with alternative 2, there is a potential that some more accessible fisheries may receive increased use as a result of restricting motorized travel to designated routes. This potential could be lessened by improving and maintaining designated routes to established fisheries and advertising the improvements and alternative fishing opportunities.

Alternative 4 (TMW Proposal)

Under this alternative, impacts to fisheries, aquatic and riparian habitat could be reduced by encouraging all travel to remain on established roads and trails. Impacts from off-route motorized travel would gradually be minimized, and impacts from motorized travel on designated routes would be lessened by well designed, constructed and maintained drainage features and stream crossings as in Alternative 3.

Motorized access to 103 lakes/reservoirs along established routes would be available. Only Blue Lake would be limited to non-motorized access. Stream access by established routes would also remain unchanged. Fisheries currently accessed by off-route means would see reduced impact as a result of encouraging travel to remain on established routes.

As with Alternative 2, there is a potential that some more accessible fisheries may receive increased use as a result of discouraging off-route travel. This potential could be lessened by improving and maintaining routes to established fisheries and advertising the improvements and alternative fishing opportunities.

4. Wildlife Habitat

Alternative 1 (No Action)

Forest Plan direction, standards and guidelines (Forest Plan page III-76) require that motorized use on roads and trails be managed to maintain or enhance effective habitat for elk, with a Forest-wide objective of elk habitat effectiveness at 40% or more. Habitat effectiveness is directly related to the open road/trail density (miles/square mile). In the areas open to off-route travel, the habitat effectiveness would continue to decline as new routes are established by users and existing nonsystem routes have increasing use. Currently, the Forest-wide elk habitat effectiveness, as related to open road and trail densities, ranges from 54% to 61%. (NOTE: The amount of use [traffic] on the roads and trails is a factor in calculating habitat effectiveness. A range of traffic was used for the nonsystem trails [from less than one vehicle per day to greater than five vehicles per day], resulting in the 7% range for habitat effectiveness.)

Habitat effectiveness for other species would also be reduced by new route development in both open meadow areas and forests.

Big game winter range would remain protected west of the rim of Lands End and in the Hightower Mountain area with closures to all motorized vehicles, including snowmobiles, from early winter to spring (estimated November 15 - May 1). Calving/fawning and summer concentration areas would receive no special protection under this alternative.

Alternative 2 (1991 Travel Plan)

Impacts to wildlife habitat would be less under this alternative than Alternative 1, because less area would remain open to off-route motorized travel.

The Forest-wide habitat effectiveness for elk as directly related to open road and trail density would be 58% to 64% (see NOTE above for explanation of range). The effectiveness would decline over time in the 86,800 acres that would be open to off-route travel.

Big game winter range protection would remain the same as Alternative 1.

Protection of calving/fawning areas would be improved on the south side of Grand Mesa where the Blue Grouse and Point Camp Trails would be closed to motorized use and motorized travel in the general area would be restricted to designated routes.

Big game transitional range, summer concentration areas and additional calving/fawning areas would be protected by restricting motorized use to designated routes along the north side of Grand Mesa and in the Bronco Knob/Bird Creek vicinity.

Alternative 3 (Preferred Alternative)

With travel only on designated roads and trails for most of the year, encroachment into and disturbance upon wildlife habitat would be reduced. The Forest-wide elk habitat effectiveness, as related to open road/trail density, would be 60% at a minimum. (NOTE: The 60% is a minimum because all the designated routes were assumed to have use greater than five vehicles per day, and there will be no nonsystem routes or new user developed routes in the area.)

Big game winter range would be protected with the same restrictions as in Alternatives 1 and 2. In addition, areas along the north side of Grand Mesa would be closed to snowmobile use (except on the groomed and/or marked snowmobile trails) in the spring when elk calving and use of the transitory range is taking place (estimated start date of area closure would be April 15). This would not likely affect snowmobiling opportunities, because snow conditions which would allow elk to move into the area are not conducive to snowmobile use.

As with Alternative 2, the Blue Grouse Trail No. 722 would be closed to motorized vehicles and the area designation for the Doughspoon-Granby Reservoirs area would be travel only on designated routes. However, this alternative would designate the Point Camp Trail No. 725 and the Drop Off Trail No. 726 as expert motorcycle (single track) trails, closed to ATVs and opened seasonally (approximately July 15 to September 15). The trails would provide an expert motorcycle experience, while providing security habitat during the elk calving period and during the big game rifle season. In addition, the use by expert motorcycle riders is expected to be very low. The habitat effectiveness for elk (86%) would be essentially equal for Alternatives 2 and 3 for this area.

Off-route motorized trail vehicle travel during the big game hunting seasons would be allowed only in certain areas (see Tables 3 and 5) and could potentially impact big game and wildlife habitat in these areas. The impacts would be reduced from Alternatives 1 and 4, since the area where off-route travel could occur is reduced and the season when this travel can occur is shortened. Off-route motorized activity may result in big game animals being displaced out of the areas where this activity is occurring.

Alternative 4 (TMW Proposal)

Impacts to wildlife habitat under this alternative would be similar to Alternative 1, because all existing travel routes would remain available for use.

The Forest-wide habitat effectiveness for elk as directly related to open road and trail density would be 54% to 61% (see NOTE above for explanation of range), the same as for Alternative 1, because all existing routes would remain available for travel. The effectiveness is not expected to decline significantly over time since new route development would be discouraged. However, the potential exists for reduced habitat effectiveness if new routes become established.

Big game winter range protection would remain the same as Alternative 1.

Protection of calving/fawning areas, transitional range and summer concentration areas would be gained over Alternative 1 as a result of encouraging all travel to remain on established routes. In addition, area and/or route closures could be used in specific areas for specific seasons as needs are identified and documented or if wildlife disturbance problems developed.

5. Threatened, Endangered and Sensitive Species

All travel management activities are subject to the provisions of the Endangered Species Act. To comply with the requirements of the Endangered Species Act, all travel management activities would be cleared for species occurrence, prior to any new ground disturbance, on a case by case basis. Travel management activities have the potential to adversely affect threatened, endangered and proposed plant and animal species on the Forest unless species and their habitat are protected where they are known to occur, and provisions are made to protect new populations, new species, and new habitat when located. Threatened, endangered and proposed species are protected by law. Where future biological assessments indicate that these species could be adversely affected by any travel management activities appropriate measures will be required to prevent impacts on any of these species.

A site specific biological assessment for threatened, endangered and proposed species; and a biological evaluation for Federal candidate species and species the Forest Service identifies as sensitive will be

conducted for each future travel management action, such as the construction of a new trail that may result from this environmental assessment.

Cumulative effects of travel management and subsequent activities (i.e. construction or new routes) and other projects planned for the Grand Mesa National Forest (i.e. timber sales, oil and gas exploration and development, etc.) must also be considered. Future biological assessments for travel management activities must be closely coordinated with other existing and proposed resource management actions.

Alternative 1 (No Action)

This alternative could have the most potential impacts on threatened, endangered and sensitive species in areas open to off-route motorized travel. Unrestricted travel could adversely affect threatened, endangered and sensitive species or their habitat in areas where populations exist that are not currently known to exist. Monitoring of known populations/habitats and closures during critical periods would prevent potential impacts.

Alternative 2 (1991 Travel Plan)

Alternative 2 would have the second highest potential to result in impacts on threatened, endangered and sensitive species because it would have the second largest amount of land available for off-route motorized travel. Unrestricted travel could adversely affect threatened, endangered and sensitive species or their habitat in those areas where travel is not controlled, if populations exist that are not currently known to exist. Monitoring of known populations/habitats and closures during critical periods would eliminate potential impacts.

Alternative 3 (Preferred Alternative)

This alternative would have no potential for impacts on threatened and endangered species and the least potential for impacts on sensitive species because motorized travel would be restricted to designated system routes designed to avoid known populations/habitats for these important species for all or most of the year. During big game hunting seasons, off-route travel by ATVs for downed game retrieval has the potential to impact individuals of threatened, endangered and sensitive species that may occur in the areas where motorized down game retrieval is allowed (see Map Figure 5 for areas where ATVs can be used for downed game retrieval). Monitoring of known populations/habitats and closures during critical periods would eliminate potential impacts.

Alternative 4 (TMW Proposal)

This alternative would have similar potential for impacts on threatened, endangered and sensitive species as Alternative 1. Ideally, all modes of travel would be encouraged to remain on established routes. However, nonsystem routes which were developed without the benefit of environmental analysis (to determine potential impacts - some of which could be on these important species) or proper design and maintenance may need to be relocated to prevent impacts to threatened, endangered and sensitive species. Monitoring of known populations/habitats and closures during critical periods would eliminate potential impacts.

6. Livestock Management

Alternative 1 (No Action)

Livestock distribution, and utilization of forage could continue to be impacted in those areas with off-route travel. Grazing permittee access would not be affected.

Alternative 2 (1991 Travel Plan)

Disturbance to livestock by off-route travel would be less than Alternative 1 in the additional 83,800 acres where travel is restricted to designated routes. Grazing permittee access would remain the same with special travel authorization under the grazing permit where motorized access is necessary in restricted areas without a designated route.

Alternative 3 (Preferred Alternative)

Effects on livestock distribution would be minimized with the preferred alternative as no off designated route travel is permitted. As with Alternative 2, administrative procedures would be used to grant permittee access where it is necessary.

Alternative 4 (TMW Proposal)

Effects on livestock distribution would be minimized with this action as all recreational use would be encouraged to travel only on established routes. User groups, permittees and others would be encouraged to work cooperatively with the Forest Service to mediate problem areas.

7. Recreation

Alternative 1 (No Action)

Visual Quality

In those areas where off-road travel has created visual scars from ruts, erosion and bog-holes; the scarring would continue. The magnitude or extent of visual impact would be a function of user numbers and user ethics, and is not accurately predictable. The present trend indicates that visual impacts would increase.

Visual quality concerns are greatest along the Grand Mesa Scenic Byway, which receives the most vehicle and people use on the Forest. Currently nonsystem routes developed by indiscriminate use are visible from the Byway in the Long Slough, Flowing Park and Lands End areas. Under this alternative, additional nonsystem routes could develop within view of the Byway in the future.

Motorized User Experience

Table 7 on page 35 displays the approximate miles of system and nonsystem roads and trails that would be available for full-sized vehicles and motorized trail vehicles. In addition, off-route motorized travel would be allowed on the 86,800 acres designated as open.

No routes are specifically identified as single track or motorcycle trails.

Not all travel ways would be signed or appear on maps. Without good direction, signing and mapping, it would be difficult for newcomers to the Forest to reliably find their way. However, it would provide adventure for those who enjoy exploring trails that are unmarked or not mapped.

Non-motorized User Experience

Non-motorized use is allowed throughout the Forest unless specifically restricted.

Nineteen (19) miles of trail would be open to hikers only (upper loop of Crag Crest National Recreation Trail, Land-O-Lakes overlook trail, trails around Mesa Lakes, and the inter-campground system between Ward Lake and Alexander Lake, including the interpretive trail near the Visitor Center).

An additional 85 miles of system trails would be designated for non-motorized use in Alternative 1.

Conflicts between users may occur where non-motorized and motorized use overlap. This potential problem could be lessened by providing information about allowed uses at trailheads, visitor centers and other visitor contact points.

Winter Recreation Experience

Snowmobilers and cross-country skiers would continue to use the existing trails and suitable areas. As use increases the potential for conflicts between these users may increase.

Hunting and Fishing Experiences

Hunting seasons run from late August (archery) through mid-November (regular rifle). Hunters who use motorized vehicles (i.e. ATVs) to access areas and retrieve downed game would continue to have this opportunity in areas open to off-route travel (approx. 173,200 acres) and along designated routes in restricted areas (within 144,000 acres). The anticipated increase in use of motorized vehicles during hunting season could decrease hunter success in these areas because of the length of time these activities occur (approximately three months) and the fact that big game tend to avoid such disturbances and can be displaced off the Forest onto private lands. There could also be a decrease in the quality of backcountry hunting experiences for non-motorized hunters in areas where off-route motorized travel is allowed. Hunters desiring a non-motorized experience could find this opportunity restricted to areas with existing motorized use restrictions or closures.

There would be no change in access to lake/reservoir fisheries under this alternative. Four (4) lakes currently have only non-motorized access. The remaining 100 lake/reservoir fisheries either have motorized road or trail access or are in areas where off-route motorized travel is allowed. Under this alternative, impacts to fisheries accessed by motorized vehicles is anticipated to increase. There would be a corresponding decrease in more primitive backcountry fishing experiences as a result.

Disabled User Experience

The No Action alternative would provide the most access to those who are in some way limited by physical conditioning, age, or disability; with the greatest area open to off-route travel (173,200 acres). This would apply to accessing the backcountry for motorized recreation pursuits (i.e. sight-seeing, fishing and/or hunting).

Forest Visitor Safety

Forest visitor safety may decrease as a result of increasing use and travel on and off nonsystem routes.

Alternative 2 (1991 Travel Plan)

Visual Quality

Evidence of off-road travel would not be eliminated but would be reduced from Alternative 1, due to the increased area of motorized travel only on designated routes (i.e. 83,800 acres more than Alternative 1). Nonsystem routes in the restricted areas would be allowed to recover naturally.

Visual impacts along the Grand Mesa Scenic Byway, would be reduced as a result of more areas having motorized travel restricted to designated routes only. Under this alternative, additional nonsystem routes could develop within view of the Byway in the future, within the Lands End and Marcott Creek to Hwy 65 planning areas, since these areas would remain open to off-route motorized travel.

Motorized User Experience

Table 7 on page 35 shows the miles of system and nonsystem roads and trails that would be available for motorized use under this alternative. This includes some existing nonsystem routes. Primitive and low standard system roads would be authorized as open to unlicensed vehicles (ATVs and dirt bikes) as well as licensed standard-sized vehicles. The combination of trails and roads would provide a network of 489 miles available to motorized trail vehicles. Proposed new trail construction to create loop connections between existing roads and trails and authorization to allow unlicensed motorized trail vehicles to use portions of graveled roads as trail connections will improve the recreation opportunities for motorized users.

No miles would be specifically set aside for single track motorcycle trails.

Motorized trail experiences will be lost on 23 miles of existing system trails that would be reclassified for non-motorized use only.

Areas allowing off-route travel will be reduced by 86,400 acres from Alternative 1. This would limit the opportunities for off-route exploration by motorized users.

Non-motorized User Experience

As with Alternative 1, non-motorized uses are allowed throughout the Forest unless specifically restricted. "Hiker only" restrictions apply to 19 miles of system trail. Table 2 on page 21 lists system trails that would be redesignated for non-motorized use in Alternative 2. (19.3 more miles than Alternative 1)

Opportunities for non-motorized experiences could also increase in areas where off-route motorized activity is restricted.

Winter Recreation Experience

Same as Alternative 1.

Hunting and Fishing Experiences

The 227,800 acres of "travel only on designated routes" would provide more non-motorized hunting and fishing experiences than would be available in Alternative 1. Less conflict between motorized and non-motorized users during hunting would occur within the "travel only on designated routes" area as those seeking a more remote hunting opportunity would gravitate to the restricted areas where open trail density is lowest. Those needing or desiring the use of a motorized vehicle for access or retrieval of downed game may move to the remaining 86,800 acres that would be open to off-route travel.

Under this alternative a total of 8 lake/reservoir fisheries would have non-motorized access only. However, as the tables in Appendix F show, these lakes/reservoirs are within 0.6 miles of motorized access and one (East Stell Lake) is within 1.1 miles of motorized access. These changes will increase the opportunities for more primitive backcountry fishing experiences. Motorized access to lake/reservoir fisheries would still be allowed to 96 lakes/reservoirs.

Disabled User Experience

Access opportunities off route would be reduced in the additional 86,400 acres where motorized travel would be restricted to designated routes. Mobility impaired users would still be allowed off-route motorized access in open areas. Access on designated routes is expected to improve as a result of routine maintenance and by having a defined network of roads/trails.

Forest Visitor Safety

Forest visitor safety is expected to increase under this alternative because motorized users will be using more maintained system travel routes than in Alternative 1. Signing will be improved to warn users of motorized trail vehicle use along low standard and primitive system roads, to reduce the potential hazards associated with mixing traffic on these routes.

Alternative 3 (Preferred Alternative)

Visual Quality

The preferred alternative would minimize visual impacts from off-route travel and nonsystem route development since all motorized travel would be on designated routes, with maintenance and/or repair needs focused on the designated system. The trails not designated as open would be allowed to recover naturally, over time. Visual impacts in visually sensitive areas (e.g. along the Grand Mesa Scenic Byway) would be rehabilitated where natural recovery would be too slow or inadequate.

Motorized User Experience

Off-route motorized travel will be eliminated under this alternative, with a corresponding loss of off-route motorized exploration experiences.

Motorized use would continue on approximately 322 miles of system roads and approximately 198 miles of system trails designated as open to motorized travel. Approximately 28 miles of nonsystem trails would be made part of the system. Table 3 on page 25 list the roads and trails where management would change.

Standard-sized vehicles would be allowed on all system roads. Passenger cars would be discouraged from primitive and low standard roads. Primitive and low standards system roads would be authorized as open to unlicensed vehicles (as in Alternative 2).

Approximately 15 miles of system trails currently open to motorized use would be redesignated for non-motorized use only (See Table 3 on page 25). In addition 299 nonsystem trails currently open and used for motorized travel would no longer be open.

This alternative would designate the Point Camp Trail No. 725 and the Drop Off Trail No. 726 as expert motorcycle (single track) trails that would be closed to ATVs and only open seasonally (approximately July 15 to September 15). The trails would provide an expert motorcycle experience, while protecting the area during the elk calving period and provide elk security during the big game rifle season. Both trails are more suited for single track use than the wider ATV. The Drop Off Trail needs some relocation and reconstruction work to safely accommodate even expert riders.

Non-motorized User Experience

As with Alternatives 1 and 2, non-motorized uses are allowed throughout the Forest unless specifically restricted. Hiker only restrictions would apply to 19 miles of existing system trail. As previously mentioned, Table 6 (page 34) lists system trails that would be redesignated for non-motorized use (approximately 15 miles greater than Alternative 1).

Opportunities for non-motorized experiences could also increase in areas where off-route motorized activity is restricted.

Winter Recreation Experience

Alternative 3 would have limited impacts on snowmobile activity on the Grand Mesa National Forest. All existing snowmobile areas and routes would be unchanged. Winter travel restrictions to protect big game winter range would remain the same in the lower Kannah Creek and Mud Hill/Road Gulch/Hightower planning areas. Snowmobile activity off designated routes would be restricted in elk calving areas and transitional range on Battlement Mesa and the north slopes of Grand Mesa, beginning approximately April 15. This new restriction should have little impact on snowmobile use in these areas since snow conditions which would allow animals to move into these areas in the spring are not normally conducive to snowmobile activity.

During analysis for this new travel management plan, a new snowmobile trail paralleling the West Bench Trail was proposed. Though not part of this preferred alternative, this parallel trail could be considered in the future.

This alternative would result in no changes to existing cross-country ski areas. Improved user information about additional experiences available at these areas (i.e. backcountry skiing in the Ward area) could result in more people finding a diversity of skiing opportunities.

Hunting and Fishing Experiences

Under this alternative there will be reduced opportunity to use motorized trail vehicles (e.g. ATVs) for backcountry access for hunting and fishing. Off-route motorized trail vehicle access would **only** be allowed during hunting seasons for downed game retrieval in limited areas (portions of the Mud Hill/Road Gulch/Hightower, Porter, Ruth Mountain, Upper Leon, Lands End and Sheep Flats/Young Lake planning areas as shown on Map Figure 5, page 24). Off-route ATV travel for downed game retrieval would be restricted to afternoon hours (noon to 5:00 p.m.) and hunters would be encouraged to not carry firearms on their ATVs while traveling to retrieve game. Approximately 80,283 acres, or 22.8% of the Grand Mesa National Forest would be available for off-route motorized trail vehicle access only to retrieve downed game.

For the majority of the Grand Mesa National Forest, hunters desiring or needing motorized access would be restricted to using designated motorized routes. Off-route access to remote areas would be limited to non-motorized means. Hunters preferring non-motorized hunting experiences would have increased opportunities because there would be more area where motorized travel off-route would not be allowed than in any other alternative. Hunting opportunities for hunters not physically able to walk or ride horses into remote areas would decrease in this alternative.

An total of 28 lake/reservoir fisheries would be accessible only by non-motorized means in this alternative. As shown in Appendix F, most of these 28 fisheries are within 0.1 to 1.1 miles of motorized access routes. The remaining 76 fisheries would be accessed by motorized routes. The change in access may result in loss of motorized access to favored fishing areas for some users. Fishing use may concentrate around lakes/reservoirs with good motorized access routes. Reducing motorized access to some fisheries would increase the opportunity for more primitive fishing experiences.

Disabled User Experience

No motorized access would be permitted off route, limiting those who need motorized means to travel off route for hunting, fishing, etc.. However, approximately 322 miles of signed and maintained system roads and 198 miles of system motorized trails would be available to get into the backcountry, providing safer and more dependable access routes.

Forest Visitor Safety

All motorized travel would be on maintained system routes, reducing the potential for accidents caused by terrain related problems. Restricting motorized use to designated routes could increase the number of users on these routes, potentially increasing the safety hazard to users. Signing will be improved to warn users of motorized trail vehicle use along low standard and primitive system roads, to reduce the potential hazards associated with mixing traffic on these routes.

Alternative 4 (TMW Proposal)

Visual Quality

Visual impacts of recreational travel could be reduced since travel would be encouraged to remain on established routes. Maintenance and/or repair needs would be focused on the primary transportation system; however, primitive routes would not receive maintenance. Visual impacts in visually sensitive areas (e.g. along the Grand Mesa Scenic Byway) would be rehabilitated where natural recovery would be too slow or inadequate.

Motorized User Experience

Table 7, page 35, shows the approximate miles of system and nonsystem roads and trails that would be available for motorized use under this alternative. Standard sized vehicles would be allowed on all established roads (passenger cars would be encouraged to use only paved and graveled roads). Motorized trail vehicles would be allowed on graveled, low standard and primitive roads (including those roads identified as closed in the other alternatives), as well as all trails not specifically designated as non-motorized.

A system of primary roads and trails would be established using existing system and nonsystem routes, plus the proposed new route construction identified in Alternative 3. Selected trails will be classified as Special Category Trails, when they are particularly suited to a specific use. Uses other than the appropriate use would not be prohibited or excluded from a Special Category Trail; however, user experiences would be enhanced through improved signing and information regarding appropriate route usage and expected users.

There would be no loss in opportunities for motorized travel on established routes under this alternative. Because off-route travel would be discouraged there could be less opportunity for this activity under this alternative. Overall, motorized user experiences would be improved as a result of improved signing, mapping and user information on the primary transportation system.

Non-Motorized User Experience

Non-motorized use is allowed across the entire Forest, unless specifically restricted. Under this alternative, all users, including non-motorized users, would be encouraged to restrict travel to established routes. Table 7 lists the miles of routes that would be available for non-motorized users. Hikers would have the upper loop of the Crag Crest National Recreation Trails and existing and proposed inter-campground/lake trails just for foot travel; mountain bikers and horseback riders can use all other available routes.

Because no use would be prohibited on any given trail, there is a potential that motorized uses could occur on trails more appropriate for non-motorized activities. This could increase potential conflicts between users and result in a loss of non-motorized experiences.

Non-motorized user experiences could be enhanced through improved signing, mapping and user information, similar to what is described for motorized users above.

Winter Recreation Experience

Same as Alternatives 1 and 2.

Hunting and Fishing Experiences

Hunters would be encouraged to remain on established routes; however off-route access for hunters to reach remote areas and for game retrieval would be allowed everywhere except in areas closed to motorized travel (i.e. Alkali/Kannah Creek/Whitewater Basin). Vigorous enforcement of existing anti-damage regulations may be necessary to reduce resource damage. Special hunting regulations would allow off-route access by ATVs in the afternoon (noon to 5:00 p.m.) to retrieve downed game, provided damage to the land does not occur. Firearms should not be carried during game retrieval if using ATVs. This would continue to provide the opportunity to use ATVs while reducing conflicts between motorized and non-motorized hunters during prime hunting hours.

Only one lake fishery would remain closed to motorized access under this alternative. The remaining 103 lakes/reservoirs could be accessed by motorized vehicles by road or trail. This could result in a loss of primitive backcountry fishing experiences if motorized use increases at the more remote locations.

Disabled User Experience

This alternative would provide the most access for all recreational users. In compliance with the Americans with Disabilities Act, there would be no barriers to the physically challenged or aged and no special privileges would need to be extended to them for their chosen mode of access since no type of travel would be prohibited on any route (although some routes would be identified as being more suitable for non-motorized uses versus motorized uses, for example).

Forest Visitor Safety

Visitor safety hazards could increase under this alternative as a result of motorized trail vehicles exploring trails previously designated as non-motorized and by mixing both full-sized and motorized trail vehicles on all Forest roads other than the 25 miles of paved highway. Visitor travel along unmaintained nonsystem routes would continue, which would have associated travel hazards.

8. Roads and Trails

Alternative 1 (No Action)

Road and trail maintenance would continue to be focused on system routes. Nonsystem roads and trails would continue to be expanded and developed in the areas open to off-route travel. Signing and mapping would be improved on designated routes, but with increasing development of nonsystem routes, overall guidance and direction for users would still be lacking.

Normally a No Action Alternative results in no changes from the existing situation. There would be an exception in this case. To become consistent with the State of Colorado's Off-Highway Vehicle law, all unsurfaced system roads (low standard and primitive) would be authorized as open to unlicensed motorized trail vehicles. Signing would be needed along these routes to inform people that mixed full-sized and trail-sized traffic is allowed and should be anticipated. All routes available to motorized trail vehicles would be placed on the State OHV map.

A new travel map displaying system routes and travel regulations would be prepared as a result of all alternatives. For Alternative 1, this would entail updating system routes currently not shown on the map. Maps specifically designed for a given user group (i.e. motorized trail users, 4WD enthusiasts, mountain bikers, etc.) similar to the existing cross-country ski and snowmobile trail maps, would provide additional information about the travel options available on the Grand Mesa National Forest.

Alternative 2 (1991 Travel Plan)

Road and trail maintenance would continue to be focused on system routes. Signing and mapping would be improved on designated routes, and guidance and direction for the user would improve in the "travel on designated routes" areas. The 86,800 acres remaining open to off-route travel would have an increasing number of unmarked routes as new user established trails are developed.

As with Alternative 1, all unsurfaced system roads (low standard and primitive) would be authorized as open to unlicensed motorized trail vehicles. Signing would be needed along these routes to inform people that mixed full-sized and trail-sized motorized traffic is allowed and should be anticipated. All routes available to motorized trail vehicles would be placed on the State OHV map.

A new travel map displaying system routes and travel regulations would be prepared as a result of all alternatives. Maps specifically designed for a given user group (i.e. motorized trail users, 4WD enthusiasts, mountain bikers, etc.) similar to the existing cross-country ski and snowmobile trail maps, would provide additional information about the travel options available on the Forest.

Alternative 3 (Preferred Alternative)

Approximately 299 miles of nonsystem routes could be closed and watershed rehabilitation needs on nonsystem trails would be completed over time on the entire 351,700 acres of the Grand Mesa National Forest. Some of these nonsystem routes may not be closed if partnership agreements between user groups and the Forest Service are entered into to reconstruct and/or maintain particular routes a group would like to see as part of the system. Trail maintenance would be focused on the 198 miles of motorized trail and 119 miles of non-motorized trail (317 total trail miles).

Road maintenance would continue on 322 miles of open system road. Most of the 70 miles of system roads that would be closed are logging roads within timber sale areas. These roads will be used for future timber harvests, but due to concerns like wildlife habitat or road maintenance costs, they are not left open to public motorized use. Closed logging roads would be available for non-motorized uses. Where closed logging roads, now or in the future, would provide a linkage for 4WD road or motorized trail networks, they will be considered for addition to the designated route system with the project specific environmental analysis (i.e. timber sale, gas well access, etc.).

Unlicensed motorized trail vehicles would be allowed on all low standard and primitive system roads and approximately 24 miles of gravel roads (for short sections) to provide linkages between motorized trails, as a result of authorizing these roads open to unlicensed motorized vehicles. Signs informing users of mixed traffic on these roads would be posted to reduce the potential safety hazards to Forest visitors. All routes available to motorized trail vehicles would be placed on the State OHV map.

Signing and mapping (i.e. guidance and direction) of the designated system, along with nonsystem route rehabilitation, would enable the user to be more assured of finding their way around the Forest and reaching their desired destination. Maps, such as the current cross-country ski and snowmobile trail maps, designed specifically for a given user group (i.e. motorized trail users, 4WD enthusiasts, non-motorized users such as mountain bikers), will provide better information on road and trail networks designed for specific uses. With motorized travel only on designated routes, the travel map should be much simpler to understand.

Alternative 4 (TMW Proposal)

As in Alternative 3, trail maintenance would be focused on the primary trails, consisting of approximately 203 motorized trail miles and 101 miles of trail most appropriate for non-motorized use. In addition, 299 miles of currently nonsystem routes would remain open to both motorized and non-motorized trail users.

Road access would continue on 404 miles of system roads. About 191 miles of this road system is currently closed for administrative reasons (i.e. active timber sale, retain wildlife habitat effectiveness, reduce road maintenance costs). Under this alternative these roads would be available for hiking, horseback, ATV, motorcycle and 4WD use after termination of the administrative action. Information signs would be installed at the beginning of these roads warning the user that no road maintenance would be done on these roads and that travel would be at the risk of the user. During wet conditions, there is a potential for road damage to occur on these unmaintained routes.

The primary trail system would be added to the State OHV map as being open to off-highway vehicle traffic, which could result in receiving funding for maintenance through grants and cooperative management. These grants are acquired by user groups for work on public land. Close cooperation would be needed between the Forest Service and user groups to make use of this funding alternative. This would also apply for the other alternatives in this analysis.

All non-paved, dirt and gravel-surfaced roads would be open to registered, non-licensed off-highway vehicles. This access would provide trailhead access from parking areas, links between motorized trails and alternative motorized routes for users not desiring a more challenging trail experience. In addition, there would be less need for parking and staging areas at each trailhead. Signs indicating a mix of both large and small vehicles would be placed at all major entry points to the system. This would alert drivers of full-sized vehicles to watch for small vehicles.

Signing and mapping (i.e. guidance and direction) of the established system, along with some nonsystem route rehabilitation, would enable the users to be more assured of finding their way around the Forest and of reaching their desired destination. Maps, such as the current cross-country ski and snowmobile trail maps, specifically for a user group (i.e. motorized trails users, 4WD enthusiasts, mountain bikers) will provide better and easier understanding of information - particularly for those not as familiar with Grand Mesa as some of the local public. These travel maps should make it much easier for all users to confine their activities to established and desired routes.

9. Special Uses

Alternative 1 (No Action)

There would be no change in management and administration of special uses (e.g. logging, livestock management, dam/reservoir administration, etc.) under this alternative. No special authorization would be necessary to allow administrative/permitted travel in restricted areas.

Reservoir operators would continue to have concerns of increased maintenance on those roads and trails used jointly by the public and the water users, as well as liability concerns where trails cross their dams.

Alternative 2 (1991 Travel Plan)

Holders of special use permits and other authorizations would continue to have access to their permitted operations. If public motorized access is prohibited, special use permittees would need special travel authorizations to continue their administrative purposes. These would be gained through approved written requests from permittees. Where public access is restricted, the permittee would be responsible for maintaining the access routes they require to administer their permits.

Where multiple trail networks access a reservoir, for example, only specified access route(s) would be left open. Water users would be restricted to use the specified route(s) to access their facilities.

Liability concerns would be decreased where specific routes over dams are designated by the Forest Service as system trails.

Alternative 3 (Preferred Alternative)

Access to reservoirs by the water users would be on a specified route(s) (to each reservoir). Where access is closed to the public, access would be allowed to water users or other permittees by special travel authorizations. Travel authorizations would be requested in writing by permittees.

Existing multiple road and trail access would be reduced to specified route(s) to access each reservoir. The Forest land upon which dams and reservoirs are constructed, operated and maintained are available for other uses, including recreation such as fishing and utilization of dams for trails. The Forest Service cannot completely absolve the owners/operators of liability; however, if a trail accessing a reservoir is a designated system trail, managed by the Forest Service; the responsibility for the safe operation and maintenance of that trail falls upon the Forest Service. In addition, the road or trail must be designed, constructed and maintained to protect the structural integrity of the dam and meet safety requirements for the dam.

Alternative 4 (TMW Proposal)

All established routes would remain open to users under this alternative, resulting in no changes to access availability to administer special uses on the Forest.

Private land trespass has the greatest potential to occur with Alternative 4 since some roads and trails that would remain open under this alternative dead end at the Forest boundary with no public access through private lands.

Public use of irrigation ditch service roads and routes across dams would be the highest under Alternative 4, resulting in the greatest liability concerns for ditch and dam owners/operators. Additional maintenance costs would be incurred.

Public use of gas pipeline, aqueduct and other utility corridors would occur with this alternative, resulting in the greatest liability concerns for utility corridor permittees, as well as increased maintenance needs and costs.

10. Social/Economic Effects

Analysis of the socioeconomic effects of the Grand Mesa Travel Management Plan will center around the following major issues:

1. Travel management may affect local economies. The Economic Impact Analysis will discuss job and income effects.
2. The Forest Service cannot afford to implement a change in travel management. The Financial Analysis will discuss the costs of the alternatives.
3. Travel management may change lifestyles of individuals now using the area. The Social Analysis will discuss changes in lifestyles.

Economic Impact Analysis

Background

The economic impact analysis is an analysis based on assumptions. Exact information on dispersed recreation use levels on the Grand Mesa and how people react to road closures and the construction of loop trails is not available and is generally very expensive to obtain. Therefore, a number of assumptions were made on the existing level of dispersed use on the Grand Mesa National Forest and how people

react to travel management actions. Different assumptions other than those used in this analysis will of course lead to different conclusions. Efforts were made to keep the assumptions realistic and reasonable. This analysis has attempted to take into account different viewpoints by using a range of values such as those presented in Table 11 (below) and the different scenarios used in the analysis on pages 82 through 84. The range of values analysis allows the reader to examine the different possible effects of the alternatives using different assumptions.

Dispersed motorized and non-motorized recreation use will be the activities primarily affected by travel management. Access to developed camping, visitor information, winter recreation, and developed day use sites will largely be unaffected by travel management. The alternatives will predominately change access to dispersed sites on the Grand Mesa, when the Grand Mesa is free of snow.

Dispersed use on the Grand Mesa is estimated at somewhere between 253,000 and 436,000 recreation visitor days (RVDs) annually. A recreation visitor day is one person spending twelve hours, four people spending three hours, or any other combination of people times hours which equals twelve people-hours in some kind of recreation activity on the Forest. The analysis will use 253,000, 352,000, and 436,000 RVDs to assess the current local (Delta, Mesa and Montrose Counties) job and income levels which are dependent on dispersed recreation on the Grand Mesa. These use levels can be further broken down into motorized and non-motorized uses. Table 11 below lists motorized and non-motorized use levels for the three different total dispersed recreation use estimates.

Winter use levels (annual RVDs) are assumed to be unaffected because these uses are not limited by dispersed roads and trails. Non-motorized use levels (annual RVDs) are assumed to not be affected because the alternatives do not decrease access opportunities and because current dispersed non-motorized use levels are significantly below the inherent capacity of the Grand Mesa.

A number of local businesses provide equipment, supplies and services to dispersed recreation users and as a result, local jobs and income are dependent on the number of people and the time they spend on the Grand Mesa enjoying different dispersed recreation activities. Between 1/2% and 3/4% of all jobs and income in Delta, Mesa and Montrose counties are dependent on dispersed recreation on the Grand Mesa.

| Use Estimate | Total | Motorized | Non-Motorized |
|---------------------|--------------|------------------|----------------------|
| Low | 253,000 | 219,000 | 34,000 |
| Moderate | 352,000 | 307,000 | 45,000 |
| High | 436,000 | 380,000 | 56,000 |

(See Economic Working Papers in the project planning files for specific calculations. Use is based on 1993 Forest Service Recreation Information Management [RIM] data and estimates of how much use is dispersed and how much occurs on the Grand Mesa versus the north half of the Uncompahgre Plateau. RIM data is based on professional estimates by Forest Service recreation managers and actual visitor counts in developed sites, annually. Dispersed recreation use figures are estimates based on observations.) NOTE: All big game hunters were assumed to be dependent on dispersed motorized roads and trails for some part of their hunting experience.

The Forest Service uses a mathematical model called IMPLAN, which estimates jobs and income in local economies using 1990 US Census data. IMPLAN models a local economy as a matrix of buying-and-selling industries and businesses in what is termed an Input-Output model. Given an increase or decrease in the sales of one or more industries, IMPLAN can estimate job and income effects. Increases or decreases of sales in IMPLAN can be related to increases or decreases of recreation use on the Grand Mesa (For a further explanation of Input-Output analysis and IMPLAN read Miernyk 1965; Harmston & Lund 1967; Miller & Blair 1985; & Taylor, Winter, Alward, & Siverts 1983).

The 1994 Colorado Labor Force Review Data Supplement indicates total employment in Delta, Mesa and Montrose Counties averaged 65,971 people employed from January 1993 to December 1993.

IMPLAN estimated total existing jobs at 71,925 in the Delta, Mesa, Montrose County area. A comparison of IMPLAN jobs with Colorado Labor Force Review employment (65,971) on the surface shows IMPLAN overestimates jobs by about 9%. This is not entirely true. Part of the difference is due to the way IMPLAN counts jobs and the State of Colorado counts employment. An IMPLAN job consists of one person at a given occupation for one day or one year, both are considered IMPLAN jobs. A person who works at one occupation full time and another part time occupation is counted as two IMPLAN jobs. That same individual would be counted as one person employed by the Colorado Labor Force Review, whether that person has one, two or five jobs. The difference in how jobs and employment are counted would lead to IMPLAN estimating a higher number than the Colorado Labor Force Review (January 1994 page 15). If IMPLAN jobs were adjusted for the number of people having two or more jobs to be compatible with Colorado Labor Force Review employment, the two estimates would be shown to be closer together, which tends to verify the IMPLAN job estimate.

The Colorado Department of Labor and Employment ES-202 data base estimates total wages covered by unemployment insurance to be \$1,000,900,000 in 1992 in Delta, Mesa and Montrose counties. Adjusting to 1993 dollars and for an estimated 10% of wages which are not covered by unemployment insurance, the total wages for Delta, Mesa and Montrose counties would be \$1,140,500,000. The IMPLAN total wage estimate for the same area is \$1,336,600,000 or approximately 17% more than the Colorado Department of Labor estimate.

All jobs and income presented in this analysis are those calculated with IMPLAN.

Current Dispersed Motorized Use

Dispersed motorized use is that recreation use at least partially dependent on the dispersed motorized road/trail system on the Grand Mesa (passenger cars, 4WDs, ATVs, motorcycles).

Using the three Grand Mesa dispersed motorized recreation use estimates of 219,000 RVDs, 307,000 RVDs and 380,000 RVDs, IMPLAN estimated dispersed motorized recreation dependent jobs and income at 321 jobs - \$4,300,000 in salary; 402 jobs - \$5,300,000 in salary; and 454 jobs - \$6,000,000 in salary respectively. The job and income estimates reflect direct, indirect and induced jobs from dispersed motorized recreation taking place on the Grand Mesa.

When compared to the total local economy, Grand Mesa dispersed motorized recreation dependent jobs reflect 0.44%, 0.56% or 0.63% of the jobs in the Delta, Mesa, Montrose area depending on whether one is looking at the low, moderate or high dispersed motorized use estimates. While these jobs are a minor part of total local jobs and their loss would not cause catastrophic effects on the local economy, they are still very important to the people who have them and add to the economic diversity and stability of the area.

Current Dispersed Non-Motorized Use

Dispersed non-motorized use is that recreation use which is not dependent on the dispersed motorized road/trail system on the Grand Mesa.

IMPLAN was also used to estimate the current number of jobs and income dependent on dispersed non-motorized use on the Grand Mesa. Again a range of three different use levels were examined: 34,000 RVDs, 45,000 RVDs and 56,000 RVDs. Dispersed non-motorized jobs and income estimated from IMPLAN are 57 jobs - \$736,000 in salary, 75 jobs - \$968,000 in salary, and 93 jobs - \$1,205,000 in salary. In general jobs and income dependent on dispersed non-motorized recreation is no more than 20% of the jobs and income dependent on dispersed motorized recreation.

Alternative Effects on Existing Use

This analysis focuses on the impacts to existing dispersed motorized uses of the Grand Mesa area, which depend on primitive roads and trails.

Dispersed motorized use levels (annual RVDs) are assumed to not be affected by an increase in the miles of dispersed motorized roads and trails because current dispersed motorized use levels are significantly below the inherent capacity of this system, which means that crowding is not a factor in the number of trips taken and the length of stay of each trip. Of the 1,499 letters received on the draft Grand Mesa Travel Management Plan, motorized users did not complain of crowded conditions.

The major effect of the alternatives are assumed to be from changes to or the loss of existing dispersed motorized use opportunities. As opportunities are changed or lost, people may take fewer trips of shorter duration, or may stop engaging in dispersed motorized recreation on the Grand Mesa completely.

Non-motorized users can use motorized trails, but motorized users cannot legally use non-motorized trails. It is not currently known the extent non-motorized use occurs on the dispersed motorized trail system on the Grand Mesa, but this use is assumed to be low due to the number of advertised developed trailhead facilities established for the non-motorized user. Heavy motorized use on a trail would tend to further discourage non-motorized recreation use.

Table 12 below lists the total trail/road miles for each of the alternatives.

| | Alt. 1 | Alt. 2 | Alt. 3 | Alt. 4 |
|---|---------------|---------------|---------------|---------------|
| Dispersed Motorized Roads/Trails | | | | |
| Primitive Roads | 219 | 181 | 192 | 271 |
| System Trails | 152 | 169 | 198 | 203 |
| Nonsystem Trails | 267 | 139 | 0 | 299 |
| Total Motorized | 638 | 489 | 390 | 773 |
| Dispersed Non-Motorized Trails | | | | |
| Non-Motorized | 85 | 105 | 100 | 82 |
| Redesigned Primitive Road | 0 | 3 | 0 | 0 |
| Hiker Only | 19 | 19 | 19 | 19 |
| Total Non-Motorized | 104 | 127 | 119 | 101 |
| Total Dispersed Roads/Trails | 742 | 616 | 509 | 874 |

Alternative 4 is the only alternative that has fewer miles of non-motorized trails than currently exists in Alternative 1. In this case, three miles of non-motorized trail would be converted to a motorized trail. Non-motorized users would still be able to use the trail, but the recreation experience would change if motorized users were on the trail at the same time.

Dispersed motorized use will be affected the most by Alternatives 2 and 3, which decrease the number of miles of primitive roads and trails available to the motorized user. Alternative 4 would not in itself increase the number of motorized RVDs on the Forest, but it would increase the quality of the recreation experience available because of the opportunity to explore new areas and meet fewer other people.

Due to the uncertainty of existing recreation information and how people will react to changes in Grand Mesa travel management, the job and income impacts discussed below for each alternative and scenario

will be presented as a range of values. The effects of the alternatives will be examined by how much each alternative reduces existing dispersed motorized recreation opportunities. For this reason, Alternatives 1 and 4 show no effect because they either maintain existing opportunities or increase them. In addition, each alternative displays different scenarios on how people will react when confronted with a road or trail closure where one did not exist before.

The scenarios are based on how dispersed motorized users may change their spending habits when encountering a road/trail closure and therefore, how road and trail closures may affect local jobs and income. Motorized users reaction scenarios to road/trail closures are:

- 0%
- 10%
- 25%

The 0% scenario assumes that as dispersed motorized users are confronted with road closures, they simply find other places on the Grand Mesa to use their motorized vehicles. The 10% scenario assumes that as dispersed motorized users are confronted with road closures, they receive less enjoyment from their outings on the Forest and spend 10% less time on the Forest. This can occur from fewer trips or from trips to other areas outside the local economy (Delta, Mesa, Montrose Counties). Under the 10% scenario, if 10% of the trails and roads were closed a 1% decrease in dispersed motorized use would occur along with a 1% decrease in jobs and income. Under the 25% scenario, if 10% of the trails and roads were closed, a 2.5% decrease in jobs, income and dispersed motorized use would occur. It is the professional opinion of Forest Service managers that the actual effects from restricting motorized use will fall somewhere between the 0% and 10% scenarios. There are others who believe the effect will be more extreme, which is the reason the 25% scenario was included in Table 14.

The other factor in estimating job and income impacts of the alternatives is the change in dispersed motorized road and trail miles from the current situation, Alternative 1. Table 13 below lists the changes by alternative.

| | Alt. 1 | Alt. 2 | Alt. 3 | Alt. 4 |
|-----------------|---------------|---------------|---------------|---------------|
| Change in Miles | 638 | -149 | -248 | +135 |
| Percent Change | NA | -23% | -39% | +21% |

Table 14 below displays the estimated range of job and income losses for each alternative and scenario. To obtain job and income effects, total jobs or income from dispersed motorized recreation is multiplied by the negative change in road/trail miles (Table 13) and by the scenario percentage.

| | Alt. 1 | Alt. 2 | Alt. 3 | Alt. 4 |
|---------------------|---------------|--------------------|--------------------|---------------|
| 0% Scenario | | | | |
| Jobs | 0 | 0 | 0 | 0 |
| Salary (Millions) | 0 | 0 | 0 | 0 |
| 10% Scenario | | | | |
| Jobs | 0 | -7 to -11 | -12 to -18 | 0 |
| Salary (Millions) | 0 | -\$0.1 to -\$0.14 | -\$0.17 to -\$0.23 | 0 |
| 25% Scenario | | | | |
| Jobs | 0 | -19 to -27 | -31 to -24 | 0 |
| Salary (Millions) | 0 | -\$0.25 to -\$0.35 | -\$0.4 to -\$0.6 | 0 |

Another factor which complicates the estimation of job and income effects of the alternatives is the effect of closing portions of the Grand Mesa to off-road/trail travel except for the retrieval of down game during the big game hunting season. Alternatives 1 and 4 do not place additional restrictions on off road hunting, while alternatives 2 and 3 do. Alternative 4 actually increases off-road and trail opportunities.

A survey of 38 hunting camps on the Grand Mesa provides some information on how hunters feel about different travel restrictions. This survey does not stand up to statistical tests of randomness, necessary sample size, or having unbiased questions. It does provide some information, which is better than having no information. The results of the survey are as follows:

1. Roughly half the camps had ATVs in them.
2. Roughly one quarter of ATV camps indicated the ATV was for game retrieval only. The other three quarters indicated they were going to access their hunting area with the ATV.
3. Roughly half of all camps indicated ATVs should be limited to trails only.
4. Those camps, which relied on foot access only (about one third of camps) wanted to see ATVs restricted to roads and trails and were split on whether some areas should be closed completely to motorized use.
5. All hunting camps were also split on whether some areas should be closed to motorized use.
6. About one third of the camps had at least one hunter from Colorado.
7. One does get the impression from reading the entire survey that most hunters could live with restricting all motorized use to roads and trails, except when retrieving game.
8. A few camps (2) indicated they thought the area they were hunting in was too crowded.

Information from the 1,499 letters sent in response to the draft Grand Mesa Travel Management Plan indicate some (10) people have purchased ATVs to hunt on them, and have indicated if ATV use is restricted, they will hunt elsewhere.

Big game hunting is responsible for approximately 165 jobs and \$2,300,000 in income annually on the Grand Mesa, or one-third to one-half of the jobs and income dependent on dispersed motorized recreation. Table 15 below displays the possible added effects of restricting off-road/trail motorized travel during the big game hunting season using percent scenarios similar to those used for total dispersed motorized recreation in Table 14. The effect on big game hunting dependent jobs and income is based on the acres of the Grand Mesa open to off-route travel. Currently 173,200 acres of the Grand Mesa are open to off-route travel. Alternative 2 reduces the number of available acres to 86,500; Alternative 3 reduces the available acres to 83,300; both alternatives reduce the acres open to off-route travel by approximately 50% when compared to Alternative 1. The difference between Alternatives 2 and 3 is that Alternative 3 excludes the west end of the Battlement Mesa area, which is generally too steep for off-route travel. Table 15 below shows the effects of both Alternatives 2 and 3 to reducing acres open to off-route travel by 50%. Alternatives 1 and 4 do not decrease the acres of off-route motorized access and their affect on big game hunting use is zero. Alternative 1 is the current situation, and Alternative 4 is less restrictive than Alternative 1. Again, it is the professional opinion of Forest Service managers that the actual effect of restricting off-road motorized travel during hunting season falls somewhere between the 0% and 10% scenarios in Table 15. There are others who believe the effect is more extreme, which is why the 25% scenario was included in Table 15.

TABLE 15. Effects of Restricting Off-Route Motorized Travel During Big Game Hunting Season

| | Alt. 1* | Alt. 2 | Alt. 3 | Alt. 4* |
|-----------------------------|---------|--------------------|--------|---------|
| 0% Hunting Scenario | | | | |
| Jobs | 0 | 0 | | 0 |
| Income (Millions) | 0 | 0 | | 0 |
| 10% Hunting Scenario | | | | |
| Jobs | 0 | -5 to -8 | | 0 |
| Income (Millions) | 0 | -\$0.07 to -\$0.11 | | 0 |
| 25% Hunting Scenario | | | | |
| Jobs | 0 | -13 to -20 | | 0 |
| Income (Millions) | 0 | -\$0.17 to -\$0.27 | | 0 |

* Alternative 1 is the current situation. Alternative 4 is less restrictive than Alternative 1.

The Rio Grande National Forest has restricted motorized use to designated roads/trails on the Forest map and allowed off-route downed game retrieval during the big game hunting seasons after 12:00 noon, for the last two years. Motorized use on the Rio Grande National Forest has continued to increase despite the restrictions on motorized travel.

Use on the Rio Grande National Forest is effected more by large population centers such as Denver or Colorado Springs, than is the Grand Mesa National Forest; but if the total motorized use pattern on the Grand Mesa is similar to the use pattern on the Rio Grande NF, the most likely effect of restriction on motorized travel is the 0%, or no-effect scenario, for both general dispersed motorized recreation and big game hunting. Under this assumption, the greatest effect of restricting motorized travel would be to slow the future growth in the local dispersed motorized recreation industry.

Alternative Effects on Future Use

Future marketing of the Grand Mesa for dispersed motorized use may attract additional people to the area, with a gain in local jobs and income. All alternatives can benefit from an enhanced sign and mapping system. Alternatives 3 and 4 have a coordinated system of signed loop trails each covering large areas of the Grand Mesa. Alternatives 1 and 2 have more miles of primitive roads and trails than does Alternative 3, while Alternative 4 has the most miles of trails of all the Alternatives. Taking these factors into consideration, Alternative 4 would be the clear leader in being able to handle increased use and being attractive to the motorized user and would be the easiest to market to the dispersed motorized user. It is not clear if having a coordinated system of trails or having a greater number of trail miles would be more important to marketing dispersed motorized recreation. If trail miles are more important to marketing, then the preference would be Alternatives 1, 2 and last, 3. If having a coordinated system of trails is more important to marketing, then the preference would be Alternatives 3, 2 and last, 1. Dispersed motorized recreation marketing preferences are summarized in Table 16 below:

TABLE 16. Alternative Compatibility With A Dispersed Motorized Marketing Strategy

| | Additional Trail Miles Most Important | Coordinated Loop System Most Important |
|-----------------|---------------------------------------|--|
| More Compatible | Alternative 4 | Alternative 4 |
| | Alternative 1 | Alternative 3 |
| | Alternative 2 | Alternative 2 |
| Less Compatible | Alternative 3 | Alternative 1 |

Where would a dispersed motorized marketing strategy leave the dispersed non-motorized user looking for solitude? Information on this subject is not known with any degree of precision. A few areas would be closed to motorized use in all alternatives, such as the Kannah Creek Area. It is also possible that terrain could effectively separate the motorized user from the non-motorized user in many areas, but exact information on the ability to do this is lacking. Some areas would be opened up to summer motorized use, where it does not now exist. A dispersed motorized marketing strategy if not managed properly would tend to put pressure to open up additional areas to motorized use and non-motorized use would tend to decrease. As motorized use increases on motorized trails, these trails will become less desirable to the non-motorized user. Jobs and income would not decrease with a decrease in non-motorized use because motorized use tends to attract more people who also spend slightly more money per RVD in the local economy than does the dispersed non-motorized user.

Would a marketing strategy, combined with improved signing and a system of loop trails, and generally increasing local population levels make up for the possible decrease in motorized use under Alternatives 2 and 3? Will a significant number of hunters choose to hunt elsewhere if motorized hunting is restricted to motorized trails in Alternatives 2 and 3? Will motorized users of the Grand Mesa, in fact, decrease their use of the Grand Mesa in response to closing or restricting roads and trails on the Grand Mesa.

More than half of hunting camps surveyed had an ATV in them. Many dispersed motorized users (more than half the letters commenting on the draft EA were from outside the Mesa, Delta, Montrose areas) as well as big game hunters (more than half the hunting camps surveyed were out-of-state hunters) come from outside the local area. Dispersed motorized users from outside the area can easily choose to recreate or hunt somewhere else. Local dispersed motorized users and hunters who depend on road/trail motorized travel would be less inclined to go elsewhere. A small number of motorized users have indicated they will stop using the Grand Mesa if motorized use is restricted.

Site Specific Effects

A number of lodges on the Grand Mesa depend on the business of dispersed motorized and non-motorized users who stop by before or after recreating on the Grand Mesa, or who stay overnight and base a day's dispersed activities out of the lodges. If dispersed recreation uses of the Grand Mesa change, these businesses may see expect a proportional change in their profitability.

Winter use of the Grand Mesa can make or break the profitability of several of the lodges on the Grand Mesa. A great deal of marketing and trail grooming is done at the lodges' expense to attract cross-country skiers and snowmobilers. One very important winter trail is the Sunlight to Powderhorn snowmobile trail (also known as the SP trail), which links the Sunlight Ski area near Glenwood Springs to the Powderhorn Ski Area near Grand Junction during the winter months. Almost annually problems have occurred when winter logging activities plow through or over sections of the SP trail in the winter. This significantly disrupts the winter experience of snowmobilers, by creating snowplowed roads and logging debris, as well as creating hazards in the SP trail from snowplowing. The lodges are trying to market a pristine winter experience, with which winter logging activities are not compatible.

Forest Service Financial Impacts

The financial analysis examines Forest Service costs for each of the travel management alternatives over a twenty year period. Each of the action alternatives (2,3 and 4) will cost more than is now being spent in travel management. Even the No Action alternative costs more than is now being spent on Grand Mesa travel management. Table 17 below summarizes the costs to the US Forest Service of the Alternatives.

| TABLE 17. Alternative Forest Service Costs | | | | |
|---|------------------|--------------------|--------------------|--------------------|
| | Alt. 1 | Alt. 2 | Alt. 3 | Alt. 4 |
| Annual Costs | | | | |
| Years 1-3 | | | | |
| Maintenance | \$68,350 | \$71,265 | \$71,500 | \$92,715 |
| Rehabilitation | \$ 8,067 | \$37,270 | \$23,800 | \$49,487 |
| Trail Construction | \$ 0 | \$27,000 | \$14,400 | \$14,400 |
| Total | \$76,417 | \$120,477 | \$109,700 | \$156,602 |
| Years 3-5 | | | | |
| Maintenance | \$68,350 | \$71,265 | \$71,500 | \$92,715 |
| Rehabilitation | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Trail Construction | \$ 0 | \$27,000 | \$14,400 | \$14,400 |
| Total | \$68,350 | \$98,265 | \$85,900 | \$107,115 |
| Year 6-20 | | | | |
| Maintenance | \$68,350 | \$71,265 | \$71,500 | \$92,715 |
| Rehabilitation | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Trail Construction | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Total | \$68,350 | \$71,265 | \$71,500 | \$92,715 |
| Twenty Year Total Discounted Cost | \$951,286 | \$1,192,140 | \$1,101,860 | \$1,461,470 |

The major difference in costs among alternatives is in the miles of trail construction and the miles of non-system trails, which are either closed or will be upgraded to protect soil and water values and receive minimal maintenance in the future.

Trail construction costs \$15,000 per mile for a 48" wide motorized path designed for ATVs and \$6,000 per mile for a 24" wide motorized path designed for motorcycles. Alternative 1 has no trail construction, Alternative 2 has nine miles of 48" wide trail construction, and Alternatives 3 and 4 have four miles of 48" and two miles of 24" trail construction. Miles of new trail construction for Alternative 3 was reduced from the original proposal as a result of public comments concerning implementation costs (from 44 miles to 6 miles). In Table 17 above, trail construction costs are averaged over a five year period.

The cost of closing or rehabilitating the non-system trails ranges from a total of \$11,400 in Alternative 1, which closes 60 miles and ignores the remaining 267 miles; to \$134,550 in Alternative 4, which brings all 299 miles up to a minimal standard needed to protect soil and water. Alternative 2 upgrades 139 non-system trail miles up to minimal soil and water standards and closes 188 miles of non-system trails at a total cost of \$98,270. Alternative 3 closes 299 miles of non-system motorized trails at \$56,810. In Table 17 above, non-system trail rehabilitation costs are averaged over a three year period and are combined with system motorized and non-motorized trail rehabilitation costs.

Rehabilitated non-system motorized trails also cost about \$35 per mile annually, for minimal maintenance. Over a 20 year period the discounted cost of closing a non-system trail is \$190 per mile and the cost of rehabilitating and maintaining a non-system trail is \$925 per mile.

Average maintenance funding allocations for trails, low standard roads, and primitive roads on the Grand Mesa has been approximately \$36,000 for trails and \$16,000 for primitive and low standard roads annually, but has been decreasing at a 5% to 10% rate.

Estimated needs from Alternative 1, the current situation, is for \$32,267 in trail money and \$40,350 in road maintenance money. So while motorized and non-motorized trails receive adequate funding, low

standard and primitive roads receive a little more than one-third of the funding they need. Table 18 below summarizes historic and needed funding for rehabilitation and maintenance by alternative.

Rehabilitation of trails that remain open for use is done through trail funding. Rehabilitation of trails that would be closed must be funded by the benefitting resource (i.e. wildlife, soil or water funds). Funding needs shown in Table 18 reflect only those requiring road or trail funds.

| TABLE 18. Historic and Anticipated Funding Needs Years 1-3 | | | | | |
|---|-----------------|---------------|---------------|---------------|---------------|
| | Historic | Alt. 1 | Alt. 2 | Alt. 3 | Alt. 4 |
| Low Standard / Primitive Roads | \$16,000 | \$40,350 | \$34,700 | \$35,850 | \$46,750 |
| Trails | \$36,000 | \$32,267 | \$62,078 | \$40,513 | \$95,451 |
| Difference From Historic | | | | | |
| Low Standard / Primitive Roads | | +152% | +117% | +124% | +192% |
| Trails | | -12% | +72% | + 13% | +165% |

Current funding indicates that while the trail system is adequately funded, the low standard/primitive road system is not. This has been a common complaint within the Forest Service as well as with the public.

Alternatives 2 and 3 would decrease the funds needed to maintain low standard/primitive roads under Alternative 1 by 35% and 28% respectively, but would not solve the problem, assuming funding levels do not change. Alternative 4 would increase funding needs by 40% over Alternative 1 funding needs.

Alternatives 2, 3 and 4 would increase trail funding needs by 72%, 13%, & 165%, respectively, for the first 3 years. While previous trail funding levels have been adequate, there is no guarantee that funding levels will automatically increase to meet the needs of the alternative selected.

Conversely, Alternative 1 would require \$3,800, Alternative 2 would require \$11,737 and Alternative 3 would require \$18,937 per year for three years, from wildlife, soil, water, etc. funds to rehabilitate trails that would be closed to future use.

Alternatives 2, 3 and 4 call for motorized trail construction. Alternative 2 constructs 9 miles of trail at a cost of \$135,000. Alternatives 3 and 4 construct 6 miles of trail at a cost of \$72,000. There are two different ways a trail construction project can be funded: as a Regional Capitol Improvement Project (CIP) and through Forest trail construction funds. To obtain CIP funding the Forest must compete with other projects within Region 2, as well as the Forest's own projects submitted in previous years. The Forest already has 20 years of CIP funding requests submitted to the Regional CIP system. Additional projects are not likely to be funded in the near future. Forest trail construction funds amount to less than \$100,000 annually and are generally intended for small construction or rehabilitation projects. In fiscal year 1994 the Forest received only \$75,000 in Forest trail construction funding, and budgets are expected to decrease further in fiscal year 1995. From fiscal years 1991-1993 the Forest Plan indicates the Forest should have built 150 miles of trail on the Forest. Actual trail construction miles were 80.2 miles or 53% of the targeted number. In summary, the Forest has generally not received the funds needed to maintain low standard and primitive roads or construct trails. This trend is expected to continue, and alternatives which call for additional road maintenance funds will not help this problem. While Grand Mesa trail maintenance and rehabilitation funds have historically been funded at adequate levels, general funding levels are decreasing and requests for added funding may go unmet. It is unlikely the trail construction projects will be able to compete in the Regional CIP system. The motorized trail construction projects could be funded with Forest trail construction funds if the motorized trails were given priority over all other non-motorized and motorized trail construction projects on the Forest.

An alternative to Forest Service funding is funding through matching funds from other agencies or private foundations. Volunteer labor from public interest groups is another alternative way to fund trail maintenance, rehabilitation and construction. While cooperative and matching funds have been used in the past, it is not currently known how much of the potential funding shortfall could be made up through cooperative funding and volunteer labor.

Social Impacts

Grand Mesa National Forest dispersed recreation opportunities affect people in two main ways. First, many people enjoy different aspects of recreating on the Grand Mesa. It provides opportunities to be with families and loved ones, opportunities for exercise, opportunities to hunt and fish, as well as the simple enjoyment of being in the great outdoors. Second, some people also depend on recreation use of the Grand Mesa either directly or indirectly for their jobs, with which they provide for themselves and their families.

The loss of a job can be extremely disruptive to individual employees and their families. The loss of a recreation opportunity, while not as catastrophic as the loss of a job, tends to affect more people, and is still very personal to the people experiencing the loss.

The potential for a change in jobs and income was discussed above. A discussion of changes in other social impacts will be discussed below.

Dispersed Motorized Users

Many people enjoy participating in dispersed motorized and non-motorized recreation on the Grand Mesa. Recreation use estimates indicate that motorized dispersed users outnumber non-motorized dispersed users by about five-to-one.

Generally people are not as emotionally involved in recreation opportunities they may gain sometime in the future as they are in recreation opportunities they have experienced in the past. People tend to associate, as a right, recreation opportunities they have experienced in the past. The term for this is prescribed rights. While prescribed rights to recreation opportunities have no legal standing, they are very important to the people who experience them. Therefore, while creating additional opportunities for people to enjoy a given form of recreation is important and beneficial, taking away an opportunity affects people more deeply. The primary social effect of the travel management alternatives is the possible loss of recreation opportunities people are now experiencing on the Grand Mesa.

Motorized users enjoy the ability and freedom to quickly go to a favorite area or trail on the Forest, or to simply explore. When a road or trail is closed or the ability to hunt from an ATV is denied, people who experience the loss feel violated, in that they can no longer go and enjoy themselves where or how they have in the past. In addition their feelings about their vehicles are also involved. They feel they paid good money for the vehicle and they should be able to take it wherever they want. They bought it to quickly take them where they want to go, to visit places they may not have been able to get to otherwise due to time, physical condition, or other reasons.

The alternatives which close the greatest miles of roads/trails will have the greatest negative social effect on motorized users. Table 19 below ranks the alternatives as to effects on motorized users.

| | |
|---------------|---------------|
| Most Negative | Alternative 3 |
| | Alternative 2 |
| | Alternative 1 |
| Most Positive | Alternative 4 |

Dispersed Non-Motorized Users

Over the last ten years dispersed non-motorized users have experienced a change in the Grand Mesa. ATVs, which were few and far between ten years ago, are now plentiful; especially during the fall big game hunting season. The non-motorized user can still go where he or she wants, but must search out the few remaining secluded non-motorized areas left on the Grand Mesa if they do not want to be within the sights and sounds of motorized use.

Dispersed non-motorized users also face possible additional losses of opportunities, but their losses are generally more subtle, such as the gradual increase in motorized use and subsequent loss of solitude in existing areas where motorized use is allowed. A more dramatic loss occurs when non-motorized areas are opened up to motorized use, such as the new route linking the Granby Reservoirs with FDR 122. The area in between is unique to the dispersed non-motorized user because it is accessed by a year-round paved road (Highway 65) with ample parking. It can be accessed by anyone capable of hiking who may not be able to afford an ATV, 4X4, truck or high clearance vehicle. Once a forest visitor is one-quarter to one-half mile away from the road there are ample opportunities for solitude: hiking, hunting and fishing without the sights or sounds of motorized traffic or for the most part, other forest users. This area is the site of a number of small 30-50 year old timber sales in which the roads have been successfully closed at least 10 years ago. Terrain limits other motorized access. The area is shared by snowmobilers and cross-country skiers during winter without serious conflicts. Dispersed non-motorized opportunities between the Granby Reservoirs and FDR 122 would be lost or greatly diminished under alternatives 2, 3 and 4.

Table 20 displays the non-motorized social effects from trail construction and possible effects of increased motorized use.

| | |
|---------------|---|
| Most Negative | Alternative 4 Alternative 2 Alternative 3 |
| Most Positive | Alternative 1 |

11. Irreversible and Irrecoverable Impacts

An irreversible commitment of resources results from actions altering an area to the extent that future options area lost. This term applies primarily to the effects of use of nonrenewable resources, such as minerals, or to factors such as soil productivity that are renewable only over long periods of time. An irretrievable commitment of resources results from the loss of production, harvest or use of natural resources. Irrecoverable losses are not necessarily irreversible losses.

Soil : Off-route travel and travel along nonsystem routes could result in impacts to soil resulting in compaction or erosion to the extent that soil productivity may be permanently impaired. These impacts would be very limited in area, primarily occurring where soils are saturated most of the year or during wet soil conditions. Impacts are directly related to the amount of motorized travel that occurs on a given site. This potentially could be both an irreversible and irretrievable loss.

Vegetation: As with soil, impacts to vegetation resulting from off-route travel and travel along nonsystem routes could result in impacts that could reduce plant vigor and ultimately result in plant loss. Impacts are directly related to the amount of motorized travel occurring on a given site. If soil productivity is impaired on any given site, impacts to vegetation potentially could be an irretrievable loss.

Fisheries, Aquatic and Riparian Resources: Impacts to these resources could result from heavy use along riparian areas and at stream crossings. Compaction of soil, loss of vegetation, increased sedimentation would all contribute to degrading these resources. Here again, if soil productivity is impaired and/or threatened, endangered or sensitive species are involved, these impacts would be irretrievable.

Wildlife Habitat: Habitat fragmentation that could result from new nonsystem route development (a potential in Alternatives 1, 2 and 4) could result in irretrievable impacts on habitat effectiveness for species which require large areas of uninterrupted habitat. The impacts would vary depending on route density and use levels. Species limited to small habitats could also be negatively impacted by new route development. Where motorized travel is restricted to designated routes the potential for irretrievable impacts to wildlife habitat are greatly reduced.

There would be no irreversible or irretrievable impacts to threatened, endangered or sensitive species as a result of any alternative. Individuals of these species may be impacted in certain cases, but impacts would not effect the livelihood of any species as a whole.

There would also be no irreversible or irretrievable impacts to livestock management, recreation opportunities, roads and trails, special uses or local economies as a result of any travel management alternative.

12. Cumulative Effects

Cumulative effects are those environmental effects which when considered separately may not be significant, but when considered together may result in a cumulatively significant effect. These may be the effects of past and future actions considered together with a proposed action, or may be the effects of similar actions within the reasonable vicinity of the proposed action.

Cumulative effects of each travel management alternative on the various affected environments have been described in the discussions above. In addition, other activities occur and are planned for on the Grand Mesa National Forest (i.e. timber sales, subdivisions, oil and gas exploration and development). Some projects effect travel management and some do not; but all projects effect the Forest ecosystems located on the Grand Mesa.

The general impacts of projects which implement the Forest Plan are disclosed in the Final Supplemental Environmental Impact Statement for the Forest Plan (e.g. past, present and future timber sales; permitted livestock grazing; etc.). Potential impacts of oil and gas development are presented in the Final Oil and Gas Leasing Environmental Impact Statement.

Additional activities not specifically planned for or identified in the Forest Plan or this assessment include things like:

- Annual events which occur under special use permits (Arctic Cat tests prototype snowmobiles along Lands Ends Road area for several days. The Boy Scouts of America hold their Klondike Derby near the intersection of Hwy 65 and Lands End road. During each event, support crews and spectators take up most of the snowmobile parking in this area . These activities brings several hundred people and cars to this intersection creating safety hazards along the highway.)
- The Grand Mesa Capital Investment Project proposes to construct new and improve existing recreational facilities along the Grand Mesa Scenic and Historic Byway.

This list is not all inclusive.

If mitigation measures are implemented as proposed during the variety of projects occurring on the Grand Mesa and monitoring is used to determine whether project implementation and mitigation is

resulting in the anticipated way, then cumulative effects from all these projects should not be significant in the long term.

V. Consultation and Coordination

Consultation and coordination with the following agencies, individuals, and groups has occurred regarding this proposed revision to the Travel Management Plan for the Grand Mesa National Forest. This included meeting with and discussing the specifics of the revision and soliciting issues or concerns they might have.

Grand Mesa Travel Management Working Group

(P = Primary member) (A = Alternate member)

| <u>Member</u> | <u>Representing</u> |
|---|--|
| William Sutton (P) Scott Kenton (P) Scott Jorgenson (A) John Burritt (A) | Environmental (Western Colorado Congress) |
| Charles Lutje (P) Jim Norfleet (A) Bud Hawkins (A) | Water Engineer, Colorado Division of Water Resources Water |
| Glen Hinshaw (P) Roger Lowry (A) Kirk Madriaga (A) | Wildlife (Colorado Division of Wildlife) |
| John Martin (P) Royal Collard (A) Kim Kokesh (A) | Motorized Users |
| Ray Ring (P) Chuck Harrington (A) Gordon Nelson (A) Ken Anderson (A) | Lodge Owners & Grand Mesa Resort Company |
| John Trammell (P) Greg Corle (A) Mike Davis (A) | Trout Unlimited |
| Bud Burgess (P) Jake Jacobs (A) Mark Smith (A) | Grazing Permittees |

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**Appendix A -
Summary of Travel Management
Working Group Recommendations**

SUMMARY OF CONSENSUS/ISSUE RESOLUTION

Meeting Date
Issue Discussed
or resolved

ISSUE

4/28/92 Using "1991 Plan" as a base, reached consensus on following issues:
 The Forest Service must make decisions with the best data currently available. (i.e. no delay for better data)
 Preventing resource/wildlife damage is guiding principle.
 Adhere to existing FS standards on all FS travelways.
 Access to dams by water users shall be on designated routes.
 Travel on dams to be managed to protect dam owner's interests.
 FS to be involved and monitor public comment during summer and hunting seasons.
 Trails destined to be closed and replaced shall be closed as the new ones are opened.
 Temporary trail closures should have a target date/situation until damage is fixed.
 Centralize trailheads and add trailhead facilities parking, signing, toilets.
 Acquire right-of-way outside National Forest.

Issues not resolved or disagreement with "91 Plan"

- | | |
|--------------------------|--|
| 9/25 | 1. Combined with #11 |
| 5/26;6/4;6/23 | 2. (Don't, Do) connect Granby and pipeline and BLM under BLM's new plan. |
| 6/4 | 3. Open West Bench Trail to ATV and motorcycles vs Don't open to motorized. |
| 5/26;6/4; 6/23;9/3 | 4. (Open, Close) Bluegrouse and Point Camp to OHV's. Open Indian Point and Flowing Park. |
| 5/26;6/4;6/23 1/19/93 | 5. (Open, Do not open) Bull and Brown to motorcycles. |
| | 6. (Open, Do not open) established ATV trails for hunting season. Address ATV and OHV game retrieval. |
| 7/9 | 7. No change in 1991 travel management proposal regarding off trail travel between Leroux Creek Rd. and Old Surface Creek Rd. except Green Mountain Trail. |
| 9/25 | 8. No expansion of motorized use from tabled plan - exceptions: logical loop connections. |
| Will Do | 9. F.S. shall manage travel to prevent breaking cattle distribution. |
| 9/25 | 10. New looped or interconnected trails should be planned into the system |
| 9/25 | 11. Have no area open to off route travel. |
| 5/26;6/4;6/23 | 12. (Keep, Don't keep) Dirty George unroaded. |
| 4/2 | 13. Eliminate Middle Fork Brush Creek Trail |
| 9/3 | 14. No motorized trail from upper Buzzard Creek to Buzzard Park. |
| 9/25 | 15. Add motorcycle trails. |

CHRONOLOGICAL SUMMARY
CONSENSUS/DECISIONS
BY
GRAND MESA TRAVEL MANAGEMENT WORKING GROUP

- 1/15/92 Organization/process development.
- 1/28/92 Issues/concerns from each member.
Information request for maps, laws, regulations, environmental considerations required.
- 2/6/92 Standards and guidelines from Forest Plan that relate to travel management reviewed.
Agreed to look a 6 area groupings to cover Forest.
- 2/25/92 Used decision matrix for Kannah Creek area.
Consensus reached on following:
Area closed to motorized use
Close Indian Creek access road
Close Beef Trail access road
Deferred mountain bike use decision until mountain bike users input.
(Note: Will be resolved/addressed in EA)
- 3/5/92 Mountain bike input
Proposal for using Decision worksheets for environmental documentation of decisions for each area.
- 3/24/92 No winter use restrictions in Battlement Mesa area; however will not provide special emphasis for over snow travel in area.
- 4/2/92 (Issue #13) Consensus reached in Battlement Mesa area on following:
Existing designated trail system to remain open to all motorized and non-motorized trail uses.
No need to identify hiker/horse only trails
Forest Service will be responsible to determine which "non-system" trails to be left open or closed to all uses.
Forest Service will use positive sign management (i.e. trail closed unless signed open)
Any seasonal restrictions to be discussed at next meeting.

NOTE: Following meeting and prior to 4/28 meeting, members were polled and agreed to use the "1991 Plan" as a base for making changes.

4/28/92 Using "1991 Plan" as a base, reached consensus on following issues:

The Forest Service must make decisions with the best data currently available. (i.e. no delay for better data)
Preventing resource/wildlife damage is guiding principle.
Adhere to existing FS standards on all FS travelways.
Access to dams by water users shall be on designated routes.
Travel on dams to be managed to protect dam owner's interests.
FS to be involved and monitor public comment during summer and hunting seasons.
Trails destined to be closed and replaced shall be closed as the new ones are opened.
Temporary trail closures should have a target date/situation until damage is fixed.
Centralize trailheads and add trailhead facilities parking, signing, toilets.
Acquire right-of-way outside National Forest.

Issues not resolved or disagreement with "91 Plan"

1. Combined with #11
2. (Don't, Do) connect Granby and pipeline and BLM under BLM's new plan.
3. Open West Bench Trail to ATV and motorcycles vs Don't open to motorized.
4. (Open, Close) Bluegrouse and Point Camp to OHV's. Open Indian Point and Flowing Park.
5. (Open, Do not open) Bull and Brown to motorcycles.
6. (Open, Do not open) established ATV trails for hunting season. Address ATV and OHV game retrieval.
7. No change in 1991 travel management proposal regarding off trail travel between Leroux Creek Rd. and Old Surface Creek Rd. except Green Mountain Trail.
8. No expansion of motorized use from tabled plan - exceptions: logical loop connections.
9. F.S. shall manage travel to prevent breaking cattle distribution.
10. New looped or interconnected trails should be planned into the system
11. Have no area open to off route travel.
12. (Keep, Don't keep) Dirty George unroaded.
13. Eliminate Middle Fork Brush Creek Trail
14. No motorized trail from upper Buzzard Creek to Buzzard Park.
15. Add motorcycle trails.

- 5/7/92 (Issues 2,4,5) No consensus on 4 alternatives in Dirty George area.
- 5/26/92 Bob Storch discussed procedural guidelines and the importance of the group using a consensus decision making process. The Travel Mangement Working Group recommendations will be the preferred alternative if the group reaches consensus in the overall plan.
 Frank Robbins will be technical consultant to group.
 Adopted procedural guidelines with some changes.
 (Issues 2,4,5,12) Dirty George area. Subcommittee to identify solution to Dirty George.
- 6/4/92 (Issues 2,4,5,12) Tentative consensus reached on Dirty George area (but to be reviewed next meeting after viewing map)(See detailed map)
 Signing must be informative about uses permitted on trails and uses in overall area.
 All motorized use in the area will be restricted to designated routes.
 Close Blue Grouse Trail to motorized use.
 The Point Camp Trail will be open to expert motorcycle users (No ATV's permitted).
 Reroute the Bull & Brown Trail, Dirty George Trails to a new westerly route which will be open to motorized trail vehicles (ATV and motorcycle) to the Battlement and Granby Reservoirs.
 Open a designated route around the rim of Indian Point and Flowing Park to motorized trail vehicles (ATV and motorcycle).
 (Issue 3) Consensus was reached on the West Bench Trail (from Mesa Lakes Lodge to Powderhorn Ski Area) as follows:
 Keep the West Bench Trail closed to motorized use.
 Provide a snowmobile route to the south of the West Bench Trail (not on the bench itself). Referred to snow/winter subcommittee.
 Improve signage to reduce snowmobile and x-country skier conflict.
 Winter/Snowmobile subcommittee formed.
- 6/23/92 (Issues 2,4,5,12) Eight (of nine) members agreed on the modifications to the Dirty George tentative consensus of 6/4 as follows (See map):
 Keep w/current trails below the rim on Working Group map.
 Defer decision w/proposed ATV trail on top of Indian Point.
 Add Drop Off Trail and tie back to Flowing Park Road at Flowing Park Reservoir as an expert motorcycle trail. Manage the same as the Point Camp Trail. Drop Off Trail will be relocated for better erosion control and drainage and reconstructed to provide better safety. This addition will provide a loop route for motorcycles.
 Assume a seasonal closure on Point Camp and Drop Off trails. The date will be set by the Forest Service taking into consideration elk calving periods in the spring and hunting season in the fall. Motorized user representative will provide a written position on this area relating to the closure of Blue Grouse Trail and lack of overall plan for a recreation trail system.

7/9/92 (Issue #7) The group accepted the Green Mountain Area map with the following changes (See detailed map):

Change map color of Cedaredge pipeline from yellow to black (i.e. road designated open to 4WD).

Change map color on Marcott/Beaver Creek Trail (section 8) from yellow to orange (i.e. designated trail open to ATV's).

Remove trail across Cole Reservoir No. 5 dam (Not needed)(i.e. closed to motorized use).

FS will consider a possible horse trail from Little Giant Reservoir to Reynolds Reservoir across Green Mountain.

Need to coordinate with Paonia Ranger District concerning travel management on Elk Park Trail (Overland Reservoir to District Boundary). Can this be a motorized trail all the way through to Leroux Creek?

Remaining trails marked in yellow will not be designated open to motorized trail vehicles.

The group reached consensus on the green mountain area.

7/28/92 Information session on dam safety and law enforcement.

8/6/92 Received maps identifying preferred routes from following:

Grand Mesa Jeep Club

Western Slope ATV Club

Thunder Mountain Wheelers

Working Group requested Forest Supervisor do the following:

Close areas in '92 hunting season to travel only on designated routes;

Install large signs at Forest entrances;

Better education efforts on travel management.

8/25/92 Forest Supervisor response to requests from 8/6/92 meeting and planned actions for the '92 hunting season.

The Working Group agreed on the strategy of emphasizing education and information as well as focusing law enforcement on key problem areas. The group requested the Forest to consider a list of ideas for the 1992 hunting season information strategy.

(NOTE: See flyer and news articles/releases)

Dave Patterson presented mountain bike user recommendations and preferences.

9/3/92 (Issue #14) Consensus was reached on the Buzzard Trail area as follows
(NOTE: see detailed map):

All area between Buzzard Divide Road #265 and Leon Creek would be travel only on designated routes.

Manage the roads and trails designated open to maintain primitive recreation experience and low user density that now exists.

Routes designated open to motorized vehicles should include:

Buzzard Trail (ATV's)

Porter Creek Road (4WD's)

Identify other designated ATV routes in Porter Mountain area

Re-establish Silver Spruce Trail at East end to Buzzard Divide Road and resolve right-of-way at Leon Creek side.

Retain current existing routes that are designated on Travel Map Trail segments that will be designated open need to be relocated or reconstructed to repair damage to wetland areas, vegetation, and correct other resource damage that is now occurring.

Roads and trails that are not designated should be closed and rehabilitated.

Include a spring closure for big game calving period and to allow wet road and trails to dry sufficiently to carry traffic.

Close segment of road from Willow Creek to Wagon Park to full size vehicles.

(Issue #4) Consensus was not reached on Indian Point (Six voted to retain current closure to motorized travel, one opposed).

Kim Kokesh will submit minority report detailing reasons for recommending a designated motorized trail loop.

(NOTE: Consensus on Dirty George area (6/4 & 6/23 meetings) tied to motorized travel on Indian Point and Rx 2A in Dirty George area).

Jim Norfleet will provide water users trails map.

9/22/92 Consensus was not reached on the Lake of the Woods Trail. (Five votes for and two opposed to closing trail to motorized use except by special use permit by water users.)

9/25/92 Agreed to following related to mountain bike trails:

Use existing trails where possible

Plan and develop a bike trail system that interconnects lodges and campgrounds between Mesa Lakes and Alexander Lodge.

Hay Park/Cedar Mesa Reservoir. Recommendations for better management of trails in the area was discussed.

Spring Creek/Bull Creek Area consensus as follows:

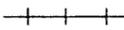
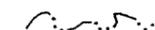
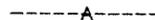
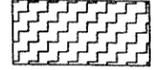
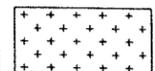
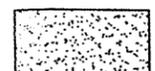
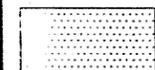
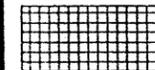
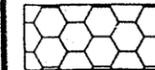
Keep area closed unless public access needed to BLM lands to the north. If needed, designate one route to access BLM lands.

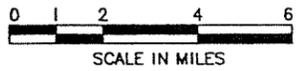
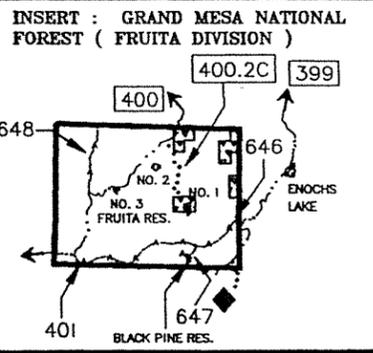
(Issues 8,10,11,15) Combined remaining issues with following resolution:

The working group recommends travel only on designated routes with direction to the Forest Service to design and develop trail systems in the current green areas for each specific type of user. In addition, the Forest Service will review the whole system for logical trails networks (i.e. review yellow areas for extensions or connections to make loops, etc.).

Consensus on recommendation to not asphalt pave Trickle Park Road.

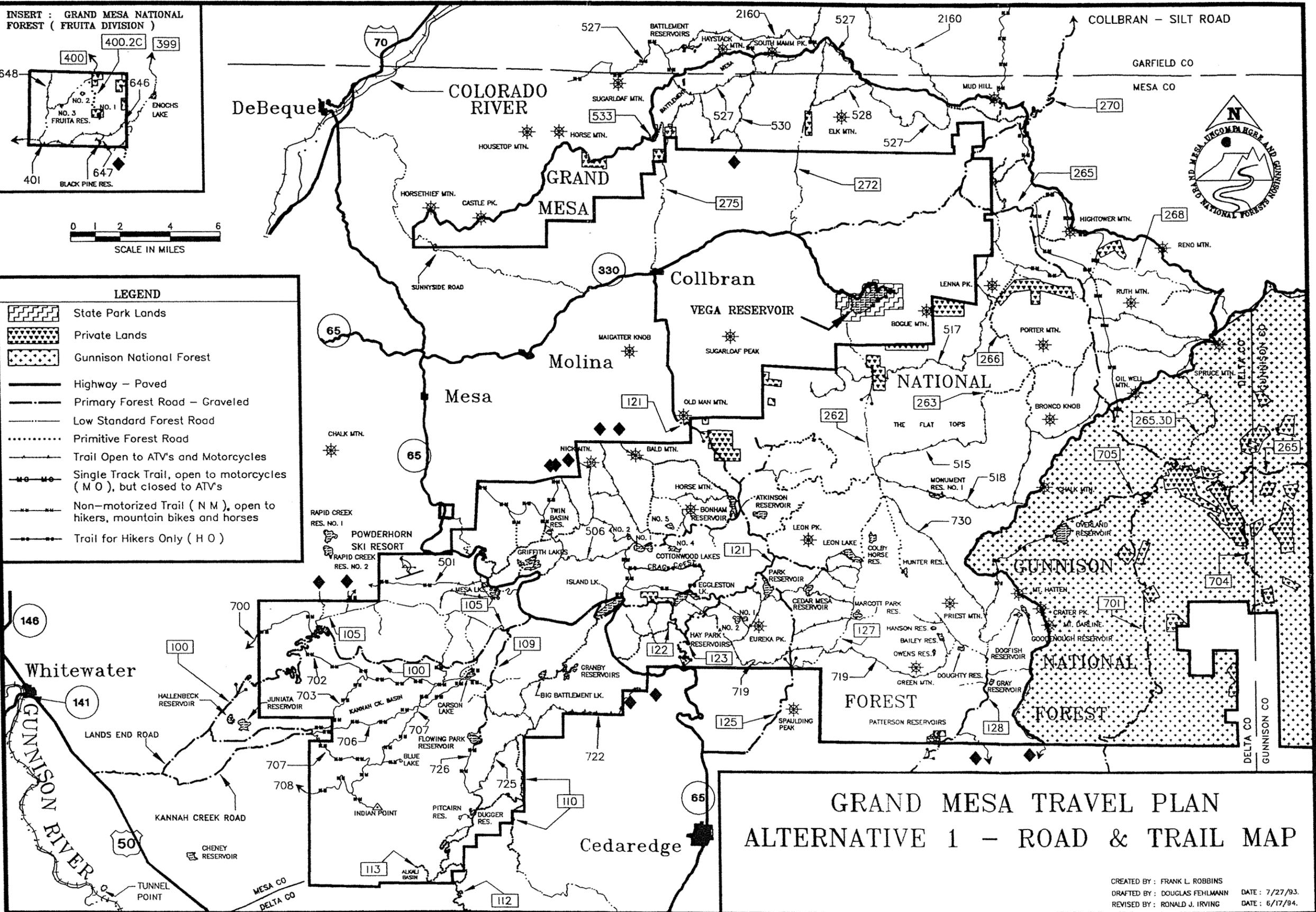
GRAND MESA N. F. TRAVEL MANAGEMENT PLAN LEGEND

| | | | |
|---|--|--|---|
|  INTERSTATE HIGHWAY  U.S. HIGHWAY  STATE HIGHWAY  FOREST ROAD 703 FOREST TRAIL  DENVER AND RIO GRANDE WESTERN RAILROAD  RAILROAD TUNNEL  PROPOSED TRAILHEAD IMPROVEMENT  OVERLOOK POINT  GATE (SEASONAL CLOSURE POINT)  NO RIGHT-OF-WAY (NO PUBLIC ACCESS)  MOUNTAIN PEAKS  SKI RESORT AREA  TOWNS AND CITIES  LAKES AND RESERVOIRS |  FOREST BOUNDARY  RIVERS  COUNTY BOUNDARY LINES  HIGHWAY - PAVED. Open to licensed vehicles only.  PRIMARY FOREST ROAD - GRAVELED. Suitable for passenger cars, open to licensed vehicles only.  PRIMARY FOREST ROAD - GRAVELED. Segment open to ATV traffic (i.e. authorized open road).  LOW STANDARD FOREST ROAD. Not recommended for passenger cars, open to licensed and unlicensed vehicles (i.e. authorized open road).  PRIMITIVE FOREST ROAD. Recommended for 4WD and high clearance vehicles only. Road open to licensed and unlicensed vehicles (i.e. authorized open road). |  TRAIL OPEN TO ATV'S (A) AND MOTORCYCLES. Vehicles must be less than 48 inches in width.  SINGLE TRACK TRAIL. Open to motorcycles (MO) and closed to ATV's.  NON-MOTORIZED (N M) TRAIL. Trail open to hikers, horses and mountain bike users, but closed to all motorized vehicles.  TRAIL OPEN TO HIKERS ONLY (H O). Closed to horses, mountain bikes and motorized trail vehicles.  STATE PARK LANDS  PRIVATE LANDS  GUNNISON NATIONAL FOREST | <h2 style="text-align: center;">AREA DESIGNATIONS</h2>  TRAVEL OFF ESTABLISHED ROADS AND TRAILS IS DISCOURAGED.  OFF ROUTE TRAVEL BY MOTORIZED VEHICLES IS PERMITTED. Resource damage must not result.  OFF ROUTE TRAVEL BY VEHICLES LESS THAN 48 INCHES WIDE IS PERMITTED. Resource damage must not result.  MOTORIZED VEHICLES ARE PERMITTED ON DESIGNATED ROUTES ONLY.  CLOSED TO MOTORIZED TRAVEL  Areas where travel by ATV's is permitted off of designated routes during big game season from noon to 5:00 P.M. to retrieve down game |
|---|--|--|---|



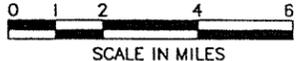
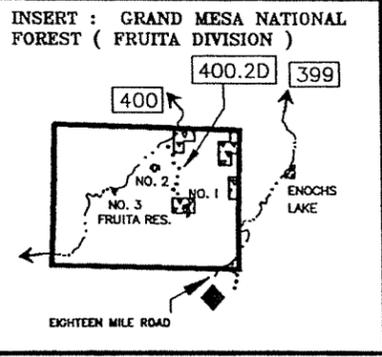
LEGEND

| | |
|--|--|
| | State Park Lands |
| | Private Lands |
| | Gunnison National Forest |
| | Highway - Paved |
| | Primary Forest Road - Graveled |
| | Low Standard Forest Road |
| | Primitive Forest Road |
| | Trail Open to ATV's and Motorcycles |
| | Single Track Trail, open to motorcycles (M O), but closed to ATV's |
| | Non-motorized Trail (N M), open to hikers, mountain bikes and horses |
| | Trail for Hikers Only (H O) |



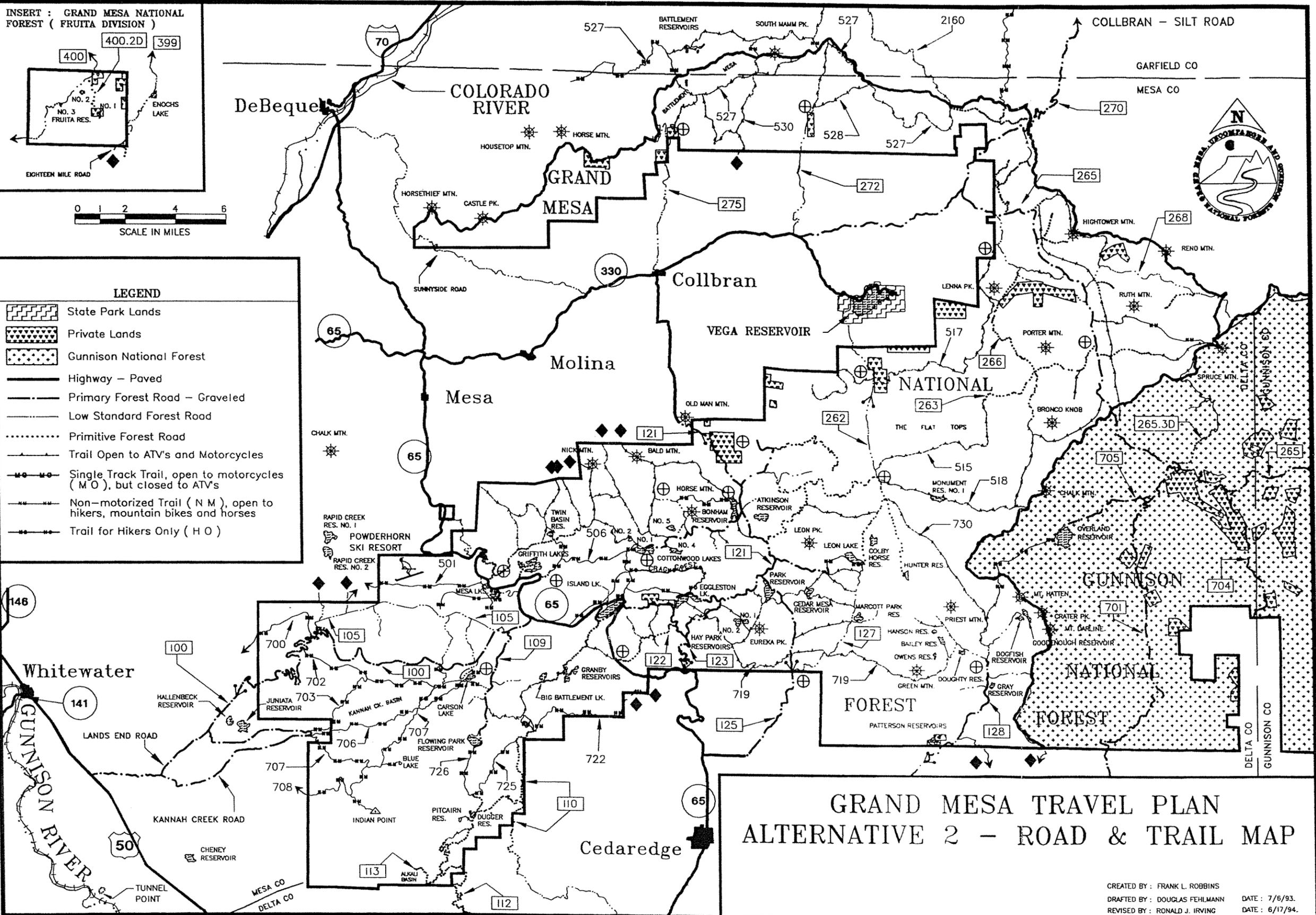
**GRAND MESA TRAVEL PLAN
ALTERNATIVE 1 - ROAD & TRAIL MAP**

CREATED BY : FRANK L. ROBBINS
 DRAFTED BY : DOUGLAS FEHLMANN DATE : 7/27/93.
 REVISED BY : RONALD J. IRVING DATE : 6/17/94.



LEGEND

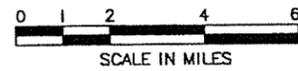
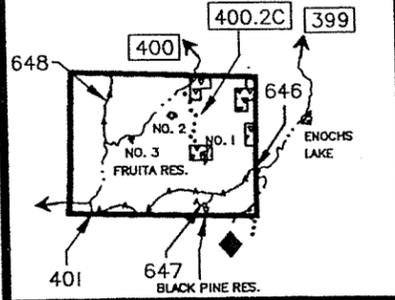
- State Park Lands
- Private Lands
- Gunnison National Forest
- Highway - Paved
- Primary Forest Road - Graveled
- Low Standard Forest Road
- Primitive Forest Road
- Trail Open to ATV's and Motorcycles
- Single Track Trail, open to motorcycles (M O), but closed to ATV's
- Non-motorized Trail (N M), open to hikers, mountain bikes and horses
- Trail for Hikers Only (H O)



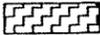
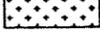
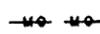
**GRAND MESA TRAVEL PLAN
ALTERNATIVE 2 - ROAD & TRAIL MAP**

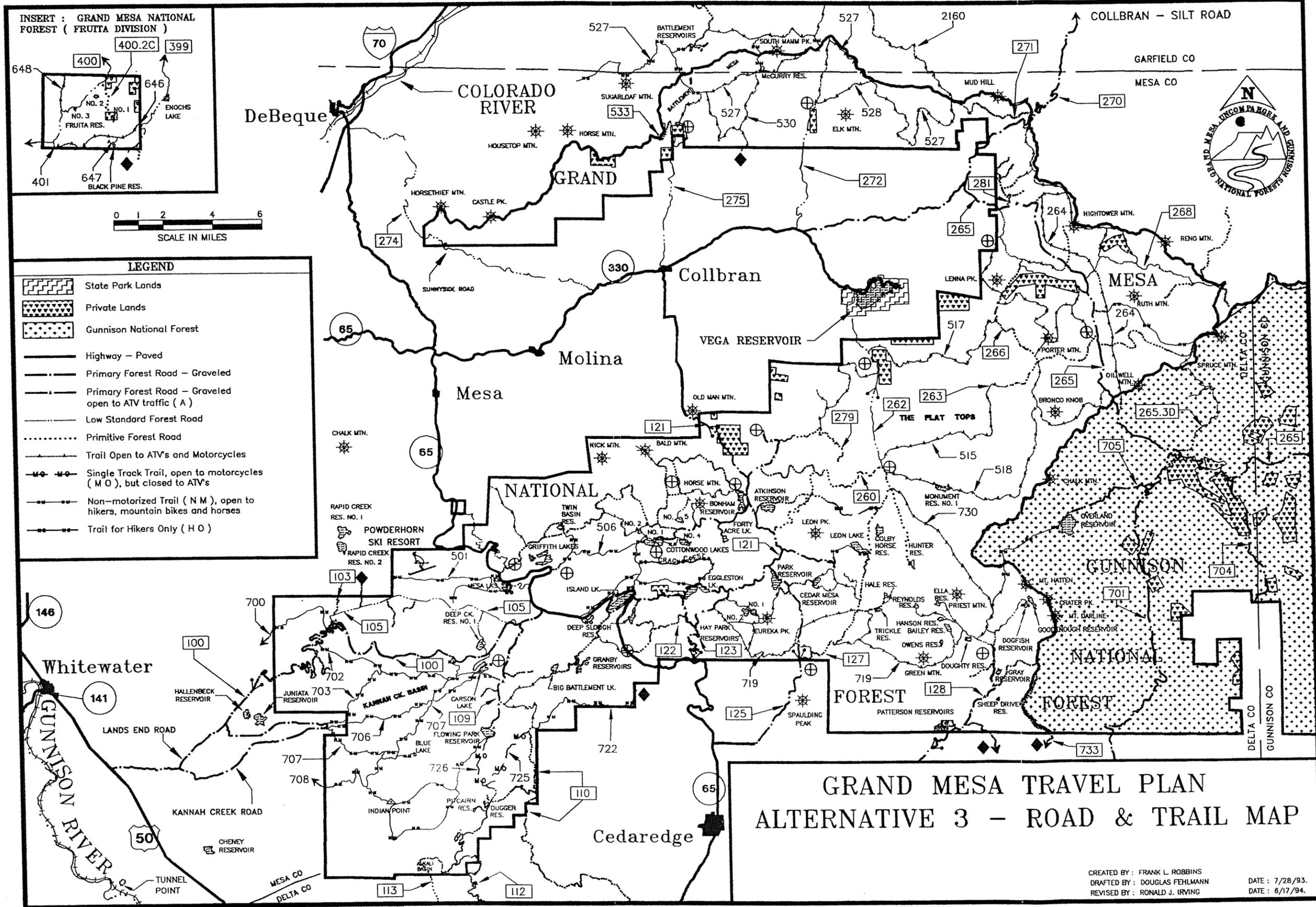
CREATED BY : FRANK L. ROBBINS
 DRAFTED BY : DOUGLAS FEHLMANN DATE : 7/6/93.
 REVISED BY : RONALD J. IRVING DATE : 6/17/94.

INSERT : GRAND MESA NATIONAL FOREST (FRUITA DIVISION)



LEGEND

-  State Park Lands
-  Private Lands
-  Gunnison National Forest
-  Highway - Paved
-  Primary Forest Road - Graveled
-  Primary Forest Road - Graveled open to ATV traffic (A)
-  Low Standard Forest Road
-  Primitive Forest Road
-  Trail Open to ATVs and Motorcycles
-  Single Track Trail, open to motorcycles (M O), but closed to ATVs
-  Non-motorized Trail (N M), open to hikers, mountain bikes and horses
-  Trail for Hikers Only (H O)



**GRAND MESA TRAVEL PLAN
ALTERNATIVE 3 - ROAD & TRAIL MAP**

CREATED BY : FRANK L. ROBBINS
 DRAFTED BY : DOUGLAS FEHLMANN
 REVISED BY : RONALD J. IRVING
 DATE : 7/28/93.
 DATE : 6/17/94.

1/19/93 (Issue #6) Reached consensus (7 voted for, 1 abstained) on travel only on designated roads and trails during hunting season (same as summer travel). No OHV use off designated routes to retrieve down game.

Working Group reviewed draft map of designated roads/trails network. Discussed pros/cons, but left final decision to Forest Service as to network/designated system.

**Appendix B -
Response to Public Comment**

RESPONSE TO PUBLIC COMMENT

INTRODUCTION

Since 1991, the Forest Service has invested extensive effort into gaining informed public comment for the revised Grand Mesa Travel Management Plan.

In late 1991, the Grand Mesa Travel Management Working Group was formed to make recommendations to the Forest Supervisor for a travel management plan revision. The Working Group had nine members, representing a cross-section of forest users and interests.

Federal, State and local agencies were informed and consulted throughout the planning effort. Individuals and organizations were informed of progress on the travel plan through the local media and mailings. The planning effort included Open Houses in Delta, Grand Junction, Mesa, Denver and Cedaredge. In addition, about 300 copies of the Environmental Assessment were distributed to interested individuals and organizations, and local government offices in September of 1993.

Indicative of the success in reaching individual and group users of the Grand Mesa National Forest are the more than 2,500 letters and petition signatures received.

Every letter the Forest Service received commenting on the Grand Mesa Travel Management Plan was read by a member of the core planning team. The team identified 1,854 different comments. From these comments, an analysis team identified 60 generalized issue statements. It then classified each individual comment under the issue to which it pertains. (The following pages list 44 issue statements. Several have sub-issues for a total of 60 issue statements.)

The planning team then developed responses to these 60 issue statements.

If you wish to see where your comment was incorporated into the process, find your name in the alphabetical listing at the end of this chapter. Under your name will be shown the issue numbers to which your comments were assigned.

All of the original letters are on file in the Planning Records.

1. Is it necessary to change the way travel is managed on Grand Mesa National Forest?

Given current trends, the Grand Mesa National Forest of the future will not look the way the public wants it to in 25, 50 or 100 years.

Grand Mesa National Forest, with its 200 lakes and 560 square miles of beauty, has become one of the state's most popular recreation areas. Use of motorized vehicles for recreation has increased dramatically during the past decade, causing increased impacts on the land and plants and animals that live there.

Unplanned roads and trails created by repeated motorized use criss-cross the Forest. Some of these roads and trails pass through riparian areas, shifting the delicate balance of ecosystems. Others cut through prime wildlife habitat.

If left unmanaged, motorized travel on Grand Mesa National Forest can reasonably be expected to create serious problems for the health of the Forest. An opportunity exists now to favorably influence the future condition of this Forest, an opportunity that might not be available in 2020.

The Forest Service has the responsibility to address existing and potential problems and to capitalize on this opportunity.

Travel management is not new. The Grand Mesa National Forest travel management plan was last revised in 1984. Periodic review and validation will need to be done again every few years.

In reaching a decision, the Forest Service has made every effort to seek a reasonable, sensible and responsible approach that involved the public to the maximum possible extent.

The travel plan revision will identify travel management actions that will provide a variety of recreation opportunities and access needs for many users while meeting resource management objectives. This includes identifying roads and trails and deciding what activities can take place, when and where.

No plan of this extent can possibly please every interest. The Forest Service cares about how the travel plan will affect the many interests and has given careful consideration to them.

While all Forest users want the Forest Service to provide a quality recreational experience, we believe they also wish to protect water quality, soil, vegetation, wildlife and fish habitat so these resources will be in good condition for future generations to use and enjoy.

2. There is concern that not enough objective scientific data exists showing motorized vehicles are damaging Grand Mesa NF.

The purpose of this plan is to prevent future damage, allow existing damage to heal, and to provide for a wide variety of recreational uses, now and in the future.

Explanations of effects of travel on soils, fisheries, wildlife, cultural resources, vegetation and water are found in Chapter IV of this document.

The result of limiting motorized travel to designated routes would be less impacts to soil, wildlife, vegetation and water resources on Grand Mesa National Forest. Designated roads and trails would be designed and maintained to decrease soil erosion and damage to vegetation. These routes would have bridges or stream crossings designed to protect water resources. Wildlife needs also are taken into consideration when planning designated routes.

Where there is resource damage or the potential for damage on designated roads or trails, these travelways may be relocated or redesigned and regularly maintained to prevent or reduce damage.

For the purpose of this Travel Management Plan Revision, 18 distinct areas have been delineated on Grand Mesa National Forest. The areas were established based on particular features considered in travel management such as soil, water and wildlife habitat. Area boundaries follow roads, trails or natural land breaks as much as possible. The impacts of each travel management option are evaluated for each of the 18 areas. The planning areas are shown in figure 2, page 5. Area descriptions and the impacts of each area-wide travel management option are evaluated in the Environmental Consequences section, beginning on page 55 of this Environmental Assessment.

3. Do motorized vehicles disrupt wildlife?

Roads and trails are essential for recreation, timber management and fire control. However, there is a large body of evidence showing that human presence and motorized vehicles can negatively affect wildlife.

Roads and trails bring people, machinery and noise into the Forest while taking away wildlife security. Road and trail use influence the habitat of animals and birds. Many impacts can be mitigated when roads and trails are properly designed and located. (see mitigation measures, Chapter 3, page 36-38)

Unplanned roads and trails that result from repeated, indiscriminate use can cause even greater stress as wildlife areas of security and cover grow smaller and smaller.

Some assume animals will just move to other habitat, but adequate alternative habitat does not always exist, or it's on private property in lower areas. Being forced onto marginal habitat can result in less healthy animals and fewer offspring. Crowding in the new habitat can result in increased stress.

Winter recreation activities can place severe physical burdens on wildlife. Stored energy needed to survive the winter is unnecessarily expended if animals must travel through snow to escape noise or

direct harassment.

Fish can be affected by sediment from unplanned, unmaintained roads and trails. Motorized vehicles crossing streams can cause bank erosion, resulting in sediment entering the stream. Sediment settles in gravel where fish spawn and can cause gravel to cement together, affecting reproduction. Insects, a food source for fish, that live in this gravel also may be affected by sediment generated from motorized vehicles crossing streams.

While a few stream crossings may seem harmless, there is the possibility of many crossing places developing. This could harm the future fisheries on Grand Mesa if the public does not address the problem.

4. How will travel management be enforced?

Improved information and maps will be posted at major trailheads and other locations in the Forest. This would include maps showing designated roads and trails, closures and restrictions, and information on trail markings throughout the Forest.

Forest Service law enforcement officers regularly patrol Grand Mesa National Forest and issue citations for violations. But with such a vast area of land, it would only be possible to adequately enforce travel restrictions with help from those who own the land -- the public.

Peer pressure is expected to play a large role in encouraging compliance with new travel regulations. The Forest Service believes most citizens are law-abiding and aware of damage caused by indiscriminate use of Forests. People usually try to inform other recreationists who appear to be unaware of regulations.

5. More and better signs are needed to help guide users of Grand Mesa NF.

Signs and maps are essential tools in directing travel on the Forest. More and better signs will be placed during the implementation phase of the travel management plan. The Forest Service recognizes that improved signs and maps are a tremendous aid in understanding and complying with the travel management plan.

It will take time to get all the necessary signs in place. Signs will indicate whether roads and trails are open or closed and whether or not there are travel limitations.

The first priority will be the placement of signs at roads and trails that are closed. These are primarily roads and trails that branch off from main routes. Entryways to these non-system routes will be obliterated. There is also a need to have signs explain why roads and trails are closed and why there are travel restrictions.

6. The Forest Service should educate the public to avoid further resource damage.

Continuing education efforts will be part of this travel management plan.

There are numerous free pamphlets, brochures and videotapes on how, when and where to ride in National Forests. These materials detail what areas, such as meadows, steep hillsides and stream-banks, should be avoided when traveling on the forest.

Information on how to avoid disrupting wildlife and the environment is included. There are brochures on trail courtesy as well. Much of this information was produced in cooperation with ATV, motorcycle, mountain bike and snowmobile groups. Maps showing travel routes and restricted areas are available at all Forest Service offices and Visitor Centers.

The Forest Service also will display Forest user regulations and etiquette in area newspapers and recreation and hunting special editions.

7. Travels impact and damage should be monitored for several years before making a travel management decision on Grand Mesa NF.

Impacts have been monitored for years. Changes in the type of travel and amount of travel are noted in the Purpose and Need Section (pages 1-4). While it would be helpful if monitoring information was more extensive, the Forest Service has photographs and other documentation of damage to the Forest on system and non-system trails and roads.

So-called "non-system" routes are those that were developed over time by various users -- ATVs, livestock, game and horse back riders. These routes sometimes dead end or become impassable in a short distance. Some closely parallel engineer-designed roads or trails. Roads that appeared because of repeated use do not meet design standards. They don't have drainage systems to reduce erosion and they are not maintained.

There are 327 miles of nonsystem roads and trails on Grand Mesa National Forest which have been identified on USGS quad maps.

There are 349 miles of professionally designed and constructed roads that are inventoried and maintained as part of the Forest transportation system. Money is budgeted for their maintenance. They usually are identified on signs and maps.

To protect the health of the Forest, roads and trails must be built and maintained to protect water quality, soils, vegetation, wildlife and other environmental elements.

Objectives to help meet this goal include:

- * Provide a system of access routes to meet current and future demands for a wide variety of Forest users.
- * Provide for diverse Forest visitor experiences and degrees of access.
- * Reduce erosion on trails and reduce sedimentation at stream crossings.
- * Provide attractive trails and trailheads with good user guidance and signs.
- * Reduce conflicts among various users.
- * Involve user groups in signing and maintaining trails.
- * Reduce use in critical wildlife habitat.
- * Protect riparian areas from disturbance and damage.

8. Question combined with number 19.

9. Closing roads and trails will cause more resource damage on remaining roads, trails and lakes.

Resource damage would be minimized through the use of culverts and drainage as well as by routing traffic around wetlands and other sensitive areas. (See mitigation measures, Chapter 3, page 36) Designated roads and trails will be designed and maintained to handle the impacts of increased traffic on the Forest.

Partnerships with user groups can play a large role in the repair and maintenance of roads and trails. ATV, motorcycle and snowmobile clubs are some of the organizations that spend considerable time helping keep the Forests clean and trails maintained.

10. People whose mobility is impaired will not have full access to Grand Mesa NF if all off-road vehicles have to stay on designated roads and trails.

The Americans with Disabilities Act requires that reasonable modifications be made to policies and procedures to accommodate individuals with disabilities in public places. The Act states that modifica-

tions should be "readily achievable."

Under the preferred alternative, special-use authorizations will be available for mobility impaired people in cases where their form of transportation doesn't conform with the travel plan. For example, a trail vehicle (ATV) is defined as being less than 48 inches wide. A mobility-impaired person's trail vehicle may be 60 inches wide. In that case, the individual could receive a permit to use the wider vehicle, providing the trail can safely accommodate it. The application for the permit would be similar to that used by the Colorado Division of Wildlife for mobility impaired people.

Under the preferred alternative, a four-mile, hiker-only trail will be built from Big Creek to Bonham Reservoir with access to stream fishing along the way. The trail will be accessible (Level 3) for the mobility challenged, which includes some older people who have difficulty walking on steep slopes or long distances. This trail will be developed using natural features along the way.

There are four levels of trails. The first level is the natural state of the land. Levels 2 and 3 are more developed and the fourth level is the most accessible. Levels are determined by degree of slope, hardness of surface, width of trail and the side slope.

A Level 3 trail is planned to connect Land-o-Lakes Overlook trail and parking area with a proposed trailhead southeast of the Lands End Road and State Highway 65 junction. Plans are to provide semi-primitive, dispersed campsites along the route for people with disabilities.

Most lakes on Grand Mesa are only a short distance from designated roads and trails. With an improved road and trail system, most forest users, including mobility-impaired people, will have access to a wide variety of recreation experiences,

11. Dam owners and workers need access to maintain dams.

Open roads and trails would provide access to most dams and reservoirs.

Special-use authorizations will be issued for motorized access to dams and reservoirs where roads or trails are closed to motorized use. Reservoir owners could use this special travel authority only for activities associated with operation of the facility -- not for recreation activities. State dam inspectors also would be allowed access to all dams and reservoirs.

People needing access to work on dams, build fences or perform other duties described in their special-use permits would apply for off-road travel authorization at the District Ranger office administering the area. There would be no cost for off-road travel authorizations. These travel authorizations would be granted based upon written requests by a facility owner and/or permittee. Individuals making the request for the special travel authorizations would be required to carry Forest approval while in the travel restricted areas. (see page 14 for more details)

Access routes closed to public motorized use but open to permittees would be signed.

Any Federal, State or local official, or members of a rescue or fire fighting effort would be exempt from restrictions or closures.

12. The Environmental Assessment is not clear about travel restrictions on snowmobiles.

Snowmobiling would be allowed on the majority of Grand Mesa National Forest, with a few exceptions. About 163 miles (117 groomed) of snowmobile trails would be signed and shown on maps in cooperation with snowmobile groups. Also, about 50 kilometers (31 miles) of cross-country ski trails will be signed and mapped with the help of cross-country ski groups.

Snowmobiles would not be allowed in areas closed to protect big game:

* The Alkali/Kannah Creek/Whitewater Basin and Mud Hill/Road Gulch/ Hightower planning areas would be closed to protect big game on winter range. Closure dates are dependent on snow conditions,

presence of animals and winter habitat. Average closure dates are Nov. 15 to May 1.

- * The Indian Point area would be closed to all motorized vehicles through hunting season (until Nov. 15) Snowmobile use in this area after that date is allowed.

- * Elk calving areas and spring range on Battlement Mesa and the northern slopes of Grand Mesa (see Figure 6, page 26) would be closed to snowmobile use off of designated routes, beginning about April 15 each year.

13. New Forest maps are needed.

A new travel map will be prepared with updated road and trail locations and detailed travel regulations. It will clearly show travel systems, networks and restrictions. The new Grand Mesa National Forest map should be available in 1995. It will be a standard Forest Service travel map, with standard symbols and colors.

In addition, maps specific to ATVs, snowmobiling and other types of recreation will be developed in cooperation with user groups, to highlight trail systems for different users.

14. There should be a system of connecting road and trail loops with varying levels of difficulty.

The preferred alternative would focus on operating and maintaining a network of roads and trails to provide a full spectrum of recreation opportunities. These would include primitive and maintained trails -- as well as paved and graveled roads -- designed to provide a variety of experiences for Forest users. Tables 6 and 7 on pages 34 and 35 summarize the road and trail systems that would be available.

Motorized travel will be permitted on designated routes for the entire 351,000 acres. Designated routes would include:

- * 192 miles of low-standard and primitive roads for high clearance and four-wheel-drive vehicles, and unlicensed motorized trail vehicles.

- * 25 miles of asphalt paved road.

- * 105 miles of graveled surface roads maintained for passenger car use. (ATVs would be allowed on short segments of graveled roads that serve as linkages between trails.

- * 379 miles of roads and trails for motorized trail vehicles. This includes 192 miles of low-standard roads, 191 miles of designated trails, 24 miles of gravel roads and seven miles of motorcycle-only trails. This network is designed to ensure connections so that use of surfaced roads by unlicensed motorized vehicles will be limited. This will improve travel safety on Grand Mesa National Forest.

- * Three separate single track motorcycle/dirt bike trails (closed to ATVs) would be provided by using five miles of existing trails and building two miles of new trail. Point Camp and Drop Off trails, on the south side of Grand Mesa, would be changed from non-motorized to motorized use. The proposed new trail would follow existing snowmobile trails along West Leon Creek.

- * 100 miles of trails for hikers, mountain bikers and horse riders. These trails would be closed to motorized vehicles. The 187 miles of motorized trail would be available for these same users. Mountain bikers also would likely use the 192 miles of low standard roads.

- * 19 miles of trails for hikers only. These trails would be closed to horses and mountain bikers and all motorized vehicles.

15. There is a safety concern with different types of motorized vehicles on gravel roads.

The Forest Service shares this concern. Gravel roads may be uneven, have washboards and loose gravel that can cause vehicles to skid and slide. ATVs and motorcycles are small and the drivers of trucks and cars sometimes do not see them.

State law (CRS 33-14.5.101) provides that off-highway vehicles may not be operated on State streets, roads or highways unless designated open by the State or a United States agency. Counties may choose to allow off-road vehicles on county roads. However, there are no county roads on Grand Mesa National Forest.

Only 28 miles of road and 13.2 miles of trail are currently designated on the 1993 Colorado OHV Trails and Riding areas map as open to off highway trail vehicles on Grand Mesa National Forest. The Forest proposes to designate all unsurfaced low standard and primitive roads and short segments of graveled roads as open to OHV use. To reduce potential safety hazards that may result from mixed traffic, the Forest intends to put up warning signs.

Under the preferred alternative, designated roads and trails would be maintained, making travel on the Forest safer for everyone.

A. There are concerns about general safety on Grand Mesa National Forest.

Under the preferred alternative, all motorized vehicle travel would be on maintained routes, improving safe travel conditions.

Some concern was expressed that motorized access would not be allowed off designated routes in the event of a life-saving emergency. Emergency operations are exempted from these regulations.

Access also would be allowed for the operation, maintenance and repair of dams on Grand Mesa National Forest. The preferred alternative provides for adequate access for equipment should there be an emergency at one of the dams.

A suggestion also was made that roads be closed during adverse weather conditions. Many roads are closed in the Winter because it's too difficult and too costly to maintain them. Others are closed in the Spring to prevent damage to fragile ecosystems. During unexpected thunderstorms, downpours or other adverse conditions, Forest users would want to use good judgment on which roads or trails to use. Some can be dangerous during storms. In other cases, damage to roads and trails can occur if traveled on while wet.

16. Combined with #11.

17. How was public input to the Draft EA used.

Public opinion has helped guide Forest Service policies, plans and operations during its 90 years of service. The agency still has a mandate to serve people by managing the National Forests in such a way as to provide the greatest good to the greatest number. As required by law, and continuing tradition, the Forest Service invested extensive effort into gaining informed public comment regarding the Grand Mesa National Forest Travel Management Plan. These efforts are detailed on pages 7-9.

Some 2,500 letters and petition signatures were received from the public regarding the proposed travel plan. These letters were studied and areas where additional information was needed were determined.

As a result of public comment the Environmental Assessment has been modified. Particular information the public asked for includes:

- * Language that clarifies how water users and dam inspectors will have access to water facilities on Grand Mesa National Forest (see pages 14 and 36).
- * Improved maps
- * Analysis of an additional alternative. Alternative 4 was submitted by Thunder Mountain Wheelers. Elements of this alternative are compared in the same manner as all other alternatives (see pages 29-

32 and 63-89).

* Analysis of possible socioeconomic effects of a new travel management plan. This includes an estimate of jobs and income in Mesa, Montrose and Delta Counties that might be influenced by changes in recreational travel on Grand Mesa National Forest. Social effects of closing roads is also briefly discussed (see pages 78-89).

* A more detailed Environmental Assessment (see page 9 and Chapter IV, beginning on page 38).

* Game retrieval with motorized trail vehicles will be allowed off designated routes in certain areas between noon and 5 p.m. (See Map Figure 5, page 24).

It should also be noted that the public will be consulted on any significant future changes to this travel management plan.

18. The local economy will be negatively impacted if travel is limited on Grand Mesa.

Economic impacts of changing the Grand Mesa Travel Plan are difficult to determine with any degree of certainty due to a number of variables. Many local businesses provide supplies, equipment and services to recreationists. Some local jobs and income are dependent on the number of people using the Forest and the amount of time they spend in the area. For a detailed discussion of possible impacts on the local economy due to a new travel management plan, please see pages 78-89 of this document.

19. Many people oppose the loss of ORV miles.

While motorized travel would be limited to designated routes only, the overall result will be a system of loop trails and roads that will provide a mixture of recreational travel experiences for all Forest users. Limiting travel to designated roads and trails will allow forest users and the Forest Service to focus efforts on maintaining these roads and trails.

Grand Mesa National Forest has 25 miles of asphalt paved roads (includes 20 miles of State Highway 65) and 105 miles of gravel surfaced roads which are maintained for passenger car use.

Under Alternative 3, unlicensed vehicles such as ATVs and dirt bikes, would not be permitted on the above 130 miles of asphalt and graveled roads used by passenger car and truck traffic, except for small sections of graveled roads that provide linkages in the travel system.

Designated unsurfaced, low standard or primitive roads ("dirt" roads) would be classified as "authorized open roads" in accordance with the State of Colorado's off-highway vehicle law. It would be legal to ride an unlicensed vehicle, such as an ATV or dirt bike, on these roads. In addition, the roads would serve as links to trails open to motorized trail vehicles and be part of the available trail network.

All trails are open to hiking, horseback riding and mountain biking, except those specifically designated for hikers only.

Acquisition of key trail rights-of-way will be pursued to enhance public access, particularly in those areas isolated by private land.

Alkali/Whitewater Basin area, and most of the Mud Hill/Road Gulch/Hightower area would be closed to motorized use in the winter, to protect big game on winter ranges. These closure dates are normally from mid-November to May 1. The majority of Kannah Creek is closed to motorized traffic all year to protect municipal watersheds. A small portion of the Kannah Creek (Lands End Road) area would be open seasonally to motorized traffic, but closed to snowmobiles. (See Figure 6, page 26)

Designated travel ways would be posted, have signs on the ground, and be shown on the new travel map.

A total of 299 miles of trail would be closed, and rehabilitated as needed. These are trails that were

created by repeated use, rather than being engineer-designed and built. These closed trails would not be maintained.

A. Some people are opposed to the loss of 4WD miles -- The preferred alternative would focus on operating and maintaining a network of roads and trails that would provide a full spectrum of recreation opportunities. It would provide for all types of travel and meet the needs of a variety of users.

Motorized travel would be permitted only on designated routes for the entire 351,000-acre forest. Under the preferred alternative, designated roads on Grand Mesa National Forest would include 192 miles of roads for high clearance and 4WD full size vehicles. There are also 25 miles of paved road and 105 miles of graveled roads suitable for passenger cars. Under the preferred alternative, there would be 27 miles less low standard and primitive roads for 4WD use. See table 7 on page 35 for mileage comparisons of the four alternatives. Also see maps in Appendix C, which show road and trail networks for all alternatives.

B. Some people are opposed to the loss of ATV miles -- There would be a total network of 414 miles of ATV trails and roads.

Under the preferred alternative, an engineer-designed, motorized trail network would be developed. This would include 132 miles of existing developed trails, 24 miles of primitive roads, three miles of low standard roads and 28 miles of user-developed trails. In addition, four miles of new trail is proposed.

An interconnected trail network that would avoid most surfaced roads would be created by joining the 28 miles of user-developed trail and four miles of new trails. Approximately 24 miles of graveled roads would be used as short connections between ATV routes.

Unsurfaced, low standard and primitive system roads would be designated as "open roads" under Colorado's Off-Highway Vehicle Law. This would make 192 miles of road also open to ATVs and dirt bikes, for a total network of 414 miles. The network would be designed to ensure connections so the use of surfaced roads by unlicensed motorized vehicles would be minimized.

The preferred alternative would have 46 more miles of motorized vehicle system roads and trails than the current system has. Under this alternative, 267 miles of non-system routes for motorized trail vehicles would be closed. (See table 7 and Appendix C for more details.)

C. Some people are opposed to the loss of motorcycle/dirt bike miles -- Separate single-track motorcycle/mountain bike trails (closed to ATVs) would be provided by using five miles of existing trail and constructing two miles of new trail.

Under Alternative 3, Point Camp and Drop Off trails, on the south side of Grand Mesa, would be changed from non-motorized to motorized use. The proposed new single-track motorcycle/mountain bike trail would follow an existing snowmobile route along West Leon Creek.

There would be 100 miles of trails maintained for non-motorized users: hikers, horse riders and mountain bikers. Mountain bikers also would likely utilize the 192 miles of low standard roads.

The Indian Point area would remain non-motorized but consideration would be given to a new mountain bike trail that would provide an exceptionally scenic bike route and provide an easy ride for casual mountain bikers or for biking families.

Lake-of-the-Woods Trail (No. 506) would be closed to motorized use. Four high-quality fishing lakes on this trail would be accessed by foot. The other trail that will be studied would provide a link connecting the lodges on Grand Mesa.

The preferred alternative would add seven miles of new trails for motorcycle and dirt bikes. A total of 267 miles of non-system roads and trails would be closed under Alternative 3. (See table 7 and Appendix C for more details)

D. Trail miles should be added.

Opportunities to provide additional trails will be considered in the future. The Forest Service will work with user groups to determine what opportunities may be needed or could be provided. Under Alternative 3, some new trails would be added in the future to provide a network of loops. Some trails would be limited to certain users, while other trails would be available for all users.

One network of trails would use 132 miles of existing engineer-designed trail, 24 miles of primitive roads, 24 miles of graveled roads, three miles of low standard roads, 28 miles of user-developed roads, seven miles of motorcycles-only trails and four miles of proposed new trail.

An additional 192 miles of dirt roads would be open to ATVs and dirt bikes, for a total of 414 miles of routes.

Three separate single track motorcycle/mountain bike trails (closed to ATVs) would be provided using five miles of existing trail and constructing two miles of new trail for a total of 7 miles.

A network of 100 miles of trail would be provided for foot, horseback or mountain bike travel. People on foot, horseback or mountain bike could also use the 191 miles of motorized trails. Mountain bikers could use the 192 miles of low standard roads in the road and trail network as well.

There would be 19 miles of trail for hikers only.

20. Many people expressed opinions and comments on matters that are beyond the scope of the Travel Management EA.

Many comments were received which were beyond the scope of the Grand Mesa National Forest Travel Management Plan Revision and therefore could not be dealt with here. Some comments could not be dealt with because of the limited authorities of the Forest Service. The purpose of this revision is to identify the travel management plan that will provide safe access for recreation users, provide a variety of recreation opportunities, support resource management and protect the ecosystem.

A. Some people expressed general support of the plan.

Many individuals and organizations are supportive of the preferred alternative. Following is a sampling of these comments.

"If the Forest Service, which has custody of this resource, does not get control, within the next 15 or 20 years motorized recreation will destroy the balance of nature and disrupt watersheds...then we'll have to spend billions restoring it."

"The plan is balanced. It allows for multiple-use of Grand Mesa and prohibits abuse of fragile ecological resources."

"It achieves balanced recreational opportunities on Grand Mesa with ample opportunities for hikers to escape motorized vehicles and enjoy the beauty and solitude of the Forest."

"Supportive of implementation of travel management plan developed by the Forest Service and Working Group, which put forth a serious and honest effort that allows for travel and environmental protection."

"The plan was developed from recommendations by the Grand Mesa Travel Plan Working Group, which represented all users."

"It's necessary to eliminate off-road and off-trail motorized use to protect soils, vegetation and wild-life and to prevent new networks of roads and trails."

"The plan is a good one. Noise and damage of ATVs spoils our enjoyment of the Forest. Would like outdoor solitude in unspoiled places to be protected so that it remains for others to enjoy."

"Grand Mesa can be protected only by placing some limitations on motorized vehicles."

"The plan represents a fair balance of use by the many and diverse desires of those who enjoy Grand Mesa."

B. Many people expressed opposition to the proposed travel plan. Some of their individual comments are listed in items #27 and #36. Numbers 21-27 identify additional reasons for opposition to the plan.

21. This plan does not support multiple-use of public lands.

Alternative 3 does support multiple-use of Grand Mesa National Forest.

It's mandated by Congress that the national forests be administered for multiple use. These uses include outdoor recreation, range, timber, watershed, wildlife and fisheries.

"Multiple-use" means the management of all the renewable resources of the National Forests so that they are used in the combination that will best meet the needs of the American people. All land can not always be used for all of these purposes. The uses must be managed in coordination with each other and without impairing the productivity of the land.

To ensure that the land will remain productive and in good shape for future generations, it's sometimes necessary to stop or limit some uses of the Forests. Some limitations are long term and some are temporary.

22. Limiting travel denies the public its rights on public lands.

Congress mandates that the Forest Service protect public lands and has given the agency the authority to put into effect rules and regulations to achieve this goal.

The Forest Service provides leadership in the management, protection and use of the National Forests. It is sometimes necessary to limit certain uses of the forest to ensure it will remain in good shape for people to use and enjoy now and for generations to come.

Access to Grand Mesa National Forest is not being closed, but motorized use is being directed to designated roads and trails to protect the Forest. Non-motorized use will not be changed by the proposed alternative.

The Forest Service has the responsibility to provide a wide spectrum of recreation and economic op-

portunities to the public.

A. Alternative 3 is not fair.

The purpose of Grand Mesa National Forest Travel Management Plan is to provide a variety of recreation opportunities and access needs for many users, while protecting the ecosystem. The ultimate goal is to ensure that the Forest will be in good condition for present and future generations to use and enjoy.

The Forest Service has aggressively sought to involve as many members of the public as possible in order to arrive at the best possible methods to achieve this goal. The preferred alternative considers all types of recreationists and provides opportunities for each of them. While it may not be possible to please all Forest users, a serious effort was made to include the public in a fair decision-making process.

The Forest Service also has modified the preferred alternative to address many public concerns.

23. Special rules should be imposed on out-of-state visitors to National Forests.

Citizens from other states cannot be denied the right to use Grand Mesa National Forest, nor can special rules or fees be imposed on them only.

The forests belong to all citizens of the United States. Forests were established for use and enjoyment by all, not only the citizens of the state where each forest is located.

24. Alternative 3 creates a Wilderness on Grand Mesa.

The preferred alternative would not make Grand Mesa National Forest a Wilderness.

No motorized vehicles or bicycles are allowed in Wilderness areas. The proposed travel plan would not prohibit the use of motorized vehicles on Grand Mesa National Forest. Trail and road networks and loops would provide a wide range of recreation opportunities on the Forest. These opportunities include roads and trails for hikers, horseback riders and mountain bikers. A network of trails and roads would provide ATV and four-wheel-drive users a variety of recreation experiences. Paved and graveled roads allow access for passenger cars.

Uncompahgre and Gunnison National Forests include eight designated Wilderness Areas for those who prefer a wilderness experience.

Wilderness areas were set aside by Congress in 1964 to assure "that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy...all areas within the United States..."

25. Unlimited travel should be allowed on all National Forests.

The Travel Management Plan Revision addressed here pertains only to Grand Mesa National Forest. There may be other forests where travel is not limited.

The option of eliminating all travel restrictions on Grand Mesa National Forest was not considered in detail because it conflicts with the Forest Plan management goals. These goals are listed on page 11.

The Forest Plan states that roads may be opened or closed to prevent unacceptable resource damage, enhance wildlife seclusion, reduce maintenance costs or to avoid high hazard locations.

26. There are concerns that the actions of a few people may result in restrictions for the majority.

The Travel Plan is not based on the actions of a few people. Rather, the Forest Service is taking steps to protect Grand Mesa National Forest so that all people, now and in the future, will have the opportunity for a quality experience -- in recreation as well as for other uses of this public land.

The Forest Service must make every effort to seek a reasonable, responsible approach to this potential problem.

Through signs, maps and education efforts, the Forest Service attempts to help people learn where and when they may travel and with what type of vehicle. While the majority of citizens understand this and comply with regulations, there may always be a few people who will not.

27. Many people are opposed to further travel restrictions.

Many individuals and organizations are opposed to restrictions outlined in the proposed travel management plan. Following is a sampling of their comments.

"Leave it alone. Don't close any more public land."

"The public should be able to use public lands. Don't close any roads or trails."

"Opposed to closing roads and trails to campers and ATVs. We need to preserve our rights to public lands. We don't need any new roads, just to use the ones already there."

"Public lands should be open for the public to use and enjoy. Motorized recreation benefits the majority of the public."

"Why do any roads or trails need closed? Motorized vehicle users have as much right to use the forest as anyone else."

"There is no need for closures. Maybe in the future, but not now."

During the past decade, recreational activities on Grand Mesa National Forest have increased significantly. More people using the forest cause more impacts on land, water, vegetation and wildlife.

The public and forest managers have expressed concerns that if travel on Grand Mesa National Forest is left unmanaged, it will cause serious problems for the health of the forest. It's the Forest Service's responsibility to address potential problems to ensure the forests will be in good condition for present and future generations to use and enjoy.

The Grand Mesa National Forest Travel Management Plan was last revised in 1984. In the future, it will probably be revised every few years.

The Grand Mesa, Uncompahgre and Gunnison National Forests Plan describes goals and activities for recreation and other uses of Grand Mesa National Forest.

The purpose of this travel management plan revision is to identify the travel management that will provide for a wide range of recreational activities, support resource management and protect the environment.

The preferred alternative will focus on operating and maintaining a network of roads and trails that

would provide for a wide range of recreation opportunities for everyone.

A. Some people support a plan that is more restrictive than Alternative 3.

Some people would like to see motorized trail vehicles prohibited on the Forest. They generally contend that these vehicles create unplanned, unregulated roads on public lands which disrupt soils, vegetation, wildlife and people.

Under the Forest Service's preferred alternative, travel would be limited to designated roads and trails. The use of road and trail networks would reduce impacts on soils, vegetation, wildlife and water resources.

While there is a need to protect ecosystems, the Forest Service also must provide recreation opportunities for all forest users.

28. There are concerns about lack of trail maintenance in the past and the future.

These are valid concerns. They reaffirm the need to focus energies on a designed road and trail system. The Forest Service, in cooperation with user groups, could concentrate their efforts and have a well-maintained road and trail system for all users to enjoy.

29. There are questions about how the Forest Service informed and involved the public in travel management.

Public involvement was extensive in developing the travel plan. The Forest Service made an effort to get a broad spectrum of informed public comment regarding Grand Mesa National Forest Travel Management plan.

First, a brief background on travel management planning on Grand Mesa National Forest. The 1984 Travel Management Plan was revised in 1991 and a Decision Notice signed by then-Forest Supervisor R.E. Greffenius. The decision was appealed and after several attempts to find a resolution, the decision was withdrawn in 1991 by Forest Supervisor Robert L. Storch. He noted that the revision failed to address all forms of travel, and that a broader range of people and organizations needed to have an opportunity for input into the travel plan revision.

In the winter of 1991, the Grand Mesa Travel Management Working Group was formed to make recommendations to the Forest Supervisor for an alternative travel management plan. The working group held its first meeting in January, 1992. It met twice a month for the next nine months. The group had nine members representing a cross-section of the following Forest users and interests:

- Motorized recreation
- Outfitters and guides
- Trout Unlimited
- Western Colorado Congress
- Water users
- Grazing permittees
- Colorado Division of Wildlife
- Lodge owners
- District Rangers for Grand Junction and Collbran Ranger Districts

The public was invited to attend Travel Management Working Group meetings. News releases were sent to all area newspapers describing what took place at each meeting, and inviting the public to attend the next meeting. Meeting notes were distributed to a list of about 250 interested parties.

Working Group meetings concluded in September, 1992. On Sept. 3, 1993, an Environmental Assessment for the Grand Mesa National Forest Travel Management Plan Revision was released for public comment. A sixty day comment period followed, during which about 2,500 individuals and organizations commented.

Five open houses were held in September and October, 1993 in Delta, Grand Junction, Mesa, Denver and Cedaredge. Forest Service representatives were available for discussion at each open house. In addition, Forest Service personnel met with various user groups during the comment period.

As a result of this public comment, the Draft Environmental Assessment was reconsidered and substantial changes proposed. This Environmental Assessment is open to public comment until a decision on a travel plan is made.

30. ATV use should be allowed for game retrieval.

Under Alternative 3, all motorized travel on Grand Mesa National Forest would be limited to designated roads and trails. These same restrictions would apply during hunting season on most of the Forest. Motorized trail vehicles could be used for off-route game retrieval on 80,283 acres (see Map Figure 5, page 24). Off-route motorized use would be allowed between noon and 5 p.m. only to retrieve down game. Hunters wanting to use motorized vehicles to retrieve game would need to hunt in areas allowing this opportunity.

Retrieval of down game off designated roads and trails throughout the majority of the Forest would be by horseback or human back. The improvement of road and trail networks and loop routes on designated roads would provide access to hunting areas.

31. ATVs should not be allowed for hunting.

Many hunters prefer a non-motorized experience. They said the noise and increased number of hunters negatively impact hunting and harasses wildlife.

Travel on designated roads would apply during hunting season, just as it would the rest of the year. This would mean hunters cannot use motorized vehicles to retrieve down game off of designated trails, except in select areas (see Map Figure 5, page 24). Hunters desiring more motorized access than proposed in Alternative 3 could choose to hunt in a number of less restricted National Forest system lands close to the Grand Mesa National Forest.

A. ATVs should be allowed for hunting.

As noted above, travel regulations would apply to all motorized vehicles on Grand Mesa National Forest, throughout the year. Hunters may use ATVs as long as they stay on designated roads and trails. For information on game retrieval, see item No. 30 in this section.

In Colorado, it is illegal to hunt from any motorized vehicle without a permit given to disabled hunters by the Colorado Division of Wildlife.

32. The travel management plan will not be cost effective.

The majority of the proposed travel system would consist of existing roads and trails. Some new trails would be built and some reconstructed to provide the road and trail loop connections for the system. It's anticipated that user groups and the Forest Service will work in cooperation to build and maintain the system.

The proposed system would be more cost effective and safer than trying to maintain and patrol the many incidental roads and trails criss-crossing the forest.

Construction of new trails would be a major cost in implementing the new travel plan. As a result of public comment on the cost of travel management, the preferred alternative now has 40 less miles of proposed new construction. Repairing damage on user-developed trails that will be returned to a natural state is another cost. These costs would be spread over several years. Signs and travel maps will be necessary at the beginning of the implementation stage.

33. Some people are opposed to one or more of the following:

- A. ATVs on the forest**
- B. 4WDs on the forest**
- C. Motorcycles on the forest**
- D. Horses on the forest**
- E. Hikers on certain trails**
- F. Snowmobiles in certain areas**

The Forest Service and citizens are working hard together to produce a travel plan that will meet the needs of all users while managing the Forest so it will be in good shape for people of today and people of the future.

With good management and the cooperation of all Forest users, opportunities will continue for all people to enjoy public lands.

The preferred alternative does set aside certain roads and trails for the exclusive use of some types of transportation. There would be trails that only hikers could use and trails that only horses, hikers and mountain bikers could use. There also would be roads and trails for ATVs and motorcycles, both jointly and separately. Snowmobile routes and cross-country ski areas provide opportunities for winter recreationists.

34. Some people support Alternative 3 because it:

A. Protects the environment

A number of people believe the preferred alternative contains measures essential to the protection of Grand Mesa National Forest. Following are some of those comments:

"The working group and FS have worked hard to create a plan that promotes a need to stop deterioration of the forest from high impact use. We applaud the plan, it represents the interests of many user groups."

"Alternative 3 represents a reasonable approach to travel management. It will limit encroachment into key wildlife areas and protect important winter habitat areas."

"Trails left open would receive more much-needed maintenance. Closing areas will allow much of the sensitive montane ecosystem to recover."

B. A number of people believe the preferred alternative considers all forest users. Some of those comments follow.

"Believe the working group put forth a very serious and honest effort to develop a travel management plan that allows for off-road vehicle travel while protecting the environment and respecting interests and desires of all other users of the Mesa."

"Grand Mesa can be protected only by placing some limitations on motorized vehicles. The plan leaves ATVs and 4-wheelers plenty of room."

"Attended Open House in Cedaredge and conclude that Alternative 3 is an acceptable management plan. It does not close all trails to ATV and motorcycle use."

"Implementation of the preferred alternative will allow varied recreational use of forest lands while promoting the protection and well-being of the Mesa's ecological resources."

35. A few people desire non-competing/segregated use.

To provide a variety of recreational experiences, and to support resource management without harming the environment, some travel routes would be designated for specific uses. For instance, some trails will be for hikers and horses only and some will be limited to ATVs and motorcycles. Roads and trails proposed under Alternative 3 are shown on maps at the end of this document, and listed on page 24.

36. The preferred alternative isn't restrictive enough.

Several people said Alternative 3 isn't restrictive enough. In creating a travel plan, the Forest Service has taken great care to ensure that all forest users will have the opportunity for a quality recreational experience. The preferred alternative would provide a variety of recreation and access for forest users while protecting the environment.

Following is a sampling of those comments.

"...would like to see transportation limited to shanks mare [foot travel]."

"Support plan, although it falls short of taking necessary steps to manage motorized use of forests. Responsible management dictates restriction of ATVs to existing primitive roads."

"The Forest Service needs to understand non-motorized and motorized use of trails are incompatible. Plan falls short in closing trails."

"All options on ATVs are too lax. During hunting season, they should be restricted to 10 a.m.- 3 p.m. for retrieval only. If enforcement is a problem, outlaw ATVs entirely."

"In addition to road closures proposed in the plan, we encourage closure of all recent and future logging and oil/gas roads to recreational use and to enforce their prompt reclamation."

A. Several people said the preferred alternative is too restrictive

Following are samples of comments from people who think the proposed travel management plan is too restrictive.

"I followed the working group progress with great interest, but was disappointed that a very restrictive plan was selected."

"Alternative 3 would likely result in over-regulation of snowmobiles, and congestion."

"The preferred alternative denies access to recreationists who depend on some type of motorized vehicle for access."

"Restrictions will severely limit the possibilities of our retirees and elderly people being able to visit the country we live in and work all of our lives to enjoy."

"Limiting use of ATVs limits the public's recreation experience."

"The restrictions proposed are much too restrictive and a gross over-reaction."

37. This Travel Management plan conflicts with the Forest Plan/NEPA process.

The proposed Grand Mesa Travel Management Plan follows the standards and guidelines set forth in the Forest Plan. It also is in compliance with the National Environmental Policy Act process.

The travel management plan is being revised to bring it into compliance with the Forest Plan for Grand Mesa, Uncompahgre and Gunnison National Forests. The Forest Plan states that roads and trails will be managed to ensure recreation opportunities while protecting wildlife and other natural resources. These objectives may be met by seasonal closures or travel restrictions.

The proposed travel plan would allow travel on designated loops and networks of roads and trails. Travel on designated roads and trails only would reduce damage to soils and vegetation, and reduce impacts on water resources. Encroachment into wildlife habitat would be minimized.

The National Environmental Policy Act (NEPA) was enacted to encourage productive and enjoyable harmony between people and the environment while protecting the environment and increasing human understanding of natural resources. (NEPA, Sec. 2)

NEPA requires in-depth analysis, public information and public participation in all significant resource management decisions. Public information has been constant on this issue since 1990 and public involvement has been intense since 1992. This document contains the Environmental Assessment.

38. Historic roads should be left open.

Planned road and trail closures should not be affected by Revised Statute 2477. This law applies only to those roads established prior to the reservation of lands for the National Forests. In the case of Grand Mesa, the Battlement Preserve was established in 1892. Typically, any roads that existed at that time would likely be today's primary access routes.

39. It's necessary to use 4WDs and ATVs to access fishing lakes.

There are 104 lakes and reservoir fisheries on Grand Mesa. Under the preferred alternative, 28 fishing lakes and reservoirs would be accessible by non-motorized means only. Most of the fisheries are within 1.5 miles of a route designated for motorized use. Motorized access will be available to 76 lake/reservoir fisheries.

Routes to and around the reservoirs would be limited to a single road or trail, versus the multiple "braided" routes that now exist in many places. Single maintained routes would reduce impacts on

soils and vegetation.

As detailed in comment No. 11, special authorizations or road use permits will be available for people needing access to dams and reservoirs for monitoring, operation and maintenance.

40. There are concerns about travel management effects on adjacent lands.

The Forest Service has enlisted the help of other Federal, State and local entities to help identify environmental consequences and help develop alternatives that are compatible with adjacent lands. A list of agencies and organizations involved in this process is on page 91-92 of this document.

41. Passes should be issued to control the number of people using Grand Mesa National Forest.

Reservation and pass approaches have been initiated to control visitor levels at a number of National Parks and on some National Forests where massive numbers of visitors have caused negative impacts on the land. The Forest Service believes that impacts on Grand Mesa National Forest have not yet reached a level where a pass is necessary.

42. Some people support additional seasonal closures.

Seasonal closures protect the environment and wildlife during critical periods. Some areas, such as Alkali/Kannah Creek/Whitewater Basin and most of the Mud Hill/Road Gulch/Hightower would be closed to motorized use every year during the winter and spring to protect big game on winter ranges. The entire Kannah Creek and Whitewater Basin area, and Indian Point would be non-motorized to protect municipal water sheds and wildlife security areas.

Other reasons for seasonal closures include protection of deer and elk staging and calving areas, and migration routes. Disturbances and habitat losses may place unnecessary stress on wintering wildlife herds and can cause increased mortality. Other areas are closed as needed to protect roads during wet seasons.

The need for closures is constantly evaluated and portions of land and roads are closed when deemed necessary.

43. There needs to be an additional alternative.

According to the National Environmental Policy Act, the range of alternatives should include all reasonable alternatives. Each alternative must be rigorously explored and objectively evaluated. The alternatives in this Environmental Assessment have been changed from the Draft Environmental Assessment to reflect public concerns and to clarify the basis for identifying the alternative that offers the greatest net benefit to the public.

During public comment on the Draft Environmental Assessment, a fourth alternative proposal was received from Thunder Mountain Wheelers, an off-highway vehicle user organization. This alternative has been included as one of the alternatives evaluated in this Environmental Assessment. Its effects are evaluated in the same manner as all other alternatives.

44. There are concerns about whether the preferred alternative is achievable.

All alternatives considered in detail are feasible and achievable.

The Forest Service hopes the public will perceive the final decision as being fair, reasonable and something all people can abide by. The support of forest users is vital to successful implementation of the Grand Mesa Travel Management Plan.

LIST OF RESPONDENTS

(WITH CORRESPONDING ISSUE NUMBERS BELOW NAME)

Vito Abbotto
27

Alan Acheily
12 27

Becky Ackerman
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Mike Ackerman
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Mitch Acord
10 22A

Stanhope Adams
20A 27A

David Addams
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Gene Addison
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Robert Addison
18 19A 31A

Jody Ahrens
12 27

R. Lee Ahrens
12 27

Jim Aigaki
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Sue Aigaki
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Clyde Albert
12 27

Mark Alexander
10 27

All Terrain Motorsports
James P. Wells
10 18 22 27

Candice Allen
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Robert Allen
12 27

Wilma Allen
12 27

Billy Aller
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Larry Alley
12 27

Michael Alsdorf
12 27

American Motorcyclist As-
sociation Eric Lundquist
01 02 09 12 13 18 19D
37 43

Rodney Ammerman
12 27

Carolyn Andersen
02 27

Betty Anderson
12 27

Robert Anderson
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Ronald Anderson
12 27

Scott Anley
12 27

George Anthony
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B. Antilloic
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Jim Antwire
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Ben Aragon
12 27

Joe Archuleta
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David and Bonnie Armen-
trout
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Bob Armstrong
02 02 33A 34A 34B

Cindy Arndt
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Ray Arndt
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Eldon Arnold
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Gary Ashurst
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Yvonne Ashurst
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Gary Atchley
19A 19B 19D 27

James Atchley
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Rene Atchley
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Brian Atkinson
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Frankie Austin
12 27

Randall Austin
12 27

Steve Baer
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Harry Baker
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Laurie Baker
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Randy Baker
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Rick Baker
19A 19B 19D 27

Tom Balbier
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Ian Bald
20A 20A

David Balkenbush
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Bobbie Jo Ball
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Donald Ball
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Kay, Robin & Dawn Ball
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John Ballagh
20A

Jon Ballinger
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Linda Barcy
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Dennis Barnes
22A

Michelle Barnes
22A

Elaine Barnhardt
34A

Don Barr
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Richard Barry
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Bruce Barton
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Ellis Bastian
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Mick Bates
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Gary Baysinger
19A 19B 19D 27

Francis Beck
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James Beck
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Bob Becker
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Alan Befus
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Henry Bellew
10 20

Dianna Beltz
12 27 43

Robert W. Beltz
19 19B 27

Anthony Bemis
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Don Benjamin
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Kevin Benway
18 27 31A

Joe Bernal
12 27

Dick Berndt
15A 20 30

David Berry
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James Berry
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Jim Berry
02 18 21 36A

Mark Berry
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Bruce Bertram
14 16 20A 28

Santo Bertuzzi
27A 33A 34B

Ted Betz
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Oliver Beyer
20

Yvonne Beyer
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Jerry Bigley
12 27

Elaine Bills
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William Bills
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Dan Bishop
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Bruce Biszick
27

Black Canyon Audubon
Society Dick Guadagno
20A

Buck Blair
19 27

Corky Blair
22

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|---|------------------------------------|--|--|
| Harold Blair 2 27 | Myrna Brecheisen 27 | Buena Vista Snowdrifters | Melanie Cardiff 12 27 |
| James Blance 12 27 | John Brewer 12 27 | Priscilla Hartman 12 18 27 | Joseph Cardin 27 |
| Paul Blee 10 31A 39 | Kim Brigham 12 27 | Bull Creek Reservoir Com- pany Betty Hawkins 05 11 13 16 20A 20A 22A 28 | Gilbert Carkhuff 02 10 12 27 |
| W. Blett 22 | Randel Bright 12 14 | Paula Bullington 21 22 27 35 | Bruce Carlberg 27 |
| Adrian James Bloom 27 | Kenneth Brines 27 | Donald Burgener 27 | Robert Carmody 12 27 |
| Blue Mesa Forest Pro- ducts Kirt Darney 04 10 30 36 | Jim Briscoe 11 | Ed Burk 12 27 | Cahd Carr 27 |
| Blue Ribbon Coalition | Jake Brittain 27 | Janet Burkart 24 | David Carriker 27 |
| Adena Cook 13 16 18 20 22A 37 38 | Harold Brock 27 | John C. Burke 27 | Gary Carter 27 |
| Walt Bohler 27 | Nick Brogna 24 | Frank Burns 27 | Justin Carver 12 27 |
| Joy Bolen 27 | Dale Brooks 20 22 | Juel Burr 10 20 | Larry Carver 39 41 |
| Larry Bolen 27 | Scott Brooks 26 27 | Mel Burr 27 | Gordon Casey 27 |
| Richard Boment 27 | Barbara Brown 10 22 | Ray Burris 27 | Patrick Casselberry 27 |
| Dallas Bonar 27 | Brad Brown 27 | Joseph Burtare 12 27 | Larry Casteel 27 |
| Damon Bond 12 27 | Bradley Brown 04 15A 22A | Bill Burton 27 | Theodore L. Caughman 22 |
| K.J. Boord 27 | Carol Brown 22 27 | Dwain Bush 27 | Victor Cauielto 27 |
| Frits Boss 12 15 30 42 43 | Corey Brown 10 22A | Kenneth Bush 27 | Vern Cecil 27 |
| Steve Bottom 12 27 | Harold Brown 27 | Shawn Bush 18 27 31A | Franko Cerame 27 |
| Tyler Bowser 27 | Leigh Anne Brown 27 | Brian Bussell 27 | Jim Chadwick 27 |
| Robert W. Boydtin 12 27 | Mary Brown 27 | Wanda Bussell 27 | Robert Chaffin 12 27 |
| Dan Bradburn 22 27 30 | Gary Browser 27 | Charles Butzn 27 | Mike Chamberlain 12 27 |
| Richard and Bonnie | Thomas Bruce 30 | Otis Bynum 27 | Susan Chamberlain 12 27 |
| Bradley 12 27 | David Brush 27 | Willis Byrd 27 | Bruce Chambers 27 |
| Robert & Anna Brand 19A 19B 19D 27 | Gordon Bryan 12 27 | Harold Caerry 27 | Mason Chambers 18 19A 31A |
| Tom Brand 27 | Buck 'n Rainbow Martin | Crooks Camero 27 | Mike Chambers 27 |
| Ed and Lois Brandhurst 2 27 | Martinez 10 18 22A 28 | Michael Cameron 27 | Aimee Chappelle 27 |
| Paul Brandon 27 | Doug Buckham 12 27 | Dewey Campbell 33A 34A | Nick Chavez 27 |
| Carol Branscom 12 27 | Robert Buckhart 27 | K. Cannon 27 | Jerry Chele 27 |
| Ray Branscom 12 27 | Buena Vista Snow Drifters | James Capoda 27 | John and Billie Cheleski 04 10 19 26 |
| Travis Brauch 27 | Glenna McQuigg 21 22 | | |

George Childers
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Paul Childers
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Raymond Childers
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Joe Chinn
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Bobby Choate
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Donald Christlieb
02 22A
Nancy Christlieb
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City of Delta Ronald Alexander
11 15A 16 28
Arland Clark
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Christya Clark
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Daisey Clark
12 27
Gerald Clawson
12 27
Lloyd Clayton
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Sharon & Eldon Clinkenbeard
12 27
Larry Clinton
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Clinton Clock
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Kirby Clock
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Club 20 Greg Walcher
05 11 13 17 18 20A 22A
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Richard Coburn
22 33A 33B 33C 34A 36
Karen Cochran
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Robert Cochran
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Dee Cockroft
13 23 36A
Lori Cody
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Arthur & Laurie Cole
12 27
C.D. Cole
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Barbara Coleman
04 27
Blacky Coleman
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Christy Coleman
02 20 27
Gary Coleman
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Les Coleman
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Mary Coleman
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Mr. & Mrs. W.B. Coleman
12 27
Wayne Coleman
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Dan Colkins
04 26 27
David Collard
10 27
La Viena Collard
10 27
Marguerite Collard
09 15A 19 36A
Royal Collard
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Colo. Chapter of Wildlife Society Tom Remington
34A 35
Colo. Environmental Coalition Rocky Smith
03 06 43
Colo. Off-Hwy. Vehicle Coalition Jerry Abboud
12 18
Colorado Mountain Club
02 03 12 33A 33B 33C
34A
Colorado Plateau Mt. Bike Assoc. Bill Harris
05 06 20A 34A
Colorado State Engineer Hal D. Simpson
11 15A 16
Robert Colunga
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Jeff Comfort
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James Commodore
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Sal Conforti
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James Conies
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Mike Connors
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Calie Conrad
12 27
Curtis Conrad
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K.L. Conrad
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Kyle Conrad
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Lauri Conrad
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Mary Conrad
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Merle Conrad
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Nichole Conrad
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Art Cook
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Holly Cook
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James S. Cook
10 18 18 20
Marshall Cook
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Robert Cook
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Daniel Cooke
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Kevan P. Cooley
12 27
Betty Cooper
22A
Clarence Cooper
22A
Jim Cooper
22A
Gary Copeland
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Wayne Coppers
02 22A
Duane Core
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Alex Coren
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Gregory Corle
14 20A 34A 34B
Patrick Cormin
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Norman Cote
18 19A 31A
Russell Cotton
12 27
Shawn Covert
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Carol Cox
10 25
Tom Cox
04 27A
Richard Cozad
12 27
Alix Craig
28 34A
Brad Craig
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Janet Craig
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Larry Craig
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Ivan Cramer
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Dee Crane
18 36A
Harvey Crawford
12 27
Richard Crentin
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Chester Crippen
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Thomas Crocker
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Dean Cross
10 27
Julie Crosson
12 27
Jeff Cumpston
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Julia and Ray Cundiff
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Harold Cunningham
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Richard Cunningham
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James Cupp
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Ray Curny
22 25
Kevin Curtis
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Larry Curtis
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Levi Daigle
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Neal Daily
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Daily Sentinel George Orbanek
20A 33A
Larry D. Dalton
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LaVon Damond
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Dan Daniels
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Glenn Daniels
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| Steve Danner 12 27 | Kenneth Dicamillo 27 | Donald Dunn 27 | Environmental Law Society Mike Chiropolos 27A 34A 34B |
| Martin Dase 27 | Sandra Dicamillo 27 | Ray Dunn 18 31A | Arnold Eriksen 27 |
| Steve Daves 27 | Raymond Dickman 27 | Bill Duran 27 | Eddie Eslinger 12 27 |
| Brian Davis 12 27 | Robert Dickman 27 | Dennis Durmas 27 | Phil Espinoza 27 |
| Richard Davis 12 27 | Thomas Didrick 18 19A | Sandra and Frank Dusza 19B 36A | Erich Essweih 01 02 22A |
| Toni Davison 20A | Gordon Diesing 27 | Brad Duvall 38 | Lee Estes 27 |
| Doug Day 27 | Chris Diesinn 27 | Dayene Easterling 27 | Larry T. Estrada 12 27 |
| David DeBrucque 22A 27 | Larry Diggs 27 | William Easton 19A 19B 19D 27 | Tina Estrada 12 27 |
| Donald DeGraffenried 12 20 27 35 | Mr. and Mrs. Dillingham 12 27 | Cindy Ecker 27 | Cheralyn Evans 10 27 |
| LaVera DeGraffenried 27 | David Dionne 12 27 | Davis Ecker 27 | Dale Evans 12 27 |
| Bill and Nancy DeLaCroix 12 24 | Thomas Dodd 02 10 15 22A | Charles Edgar 04 10 22 26 6 | Faye Evans 27 30 |
| Alan DeVore 01 02 06 10 26 | Gary Donald 02 | Gary Edsel 12 27 | James Evans 12 27 |
| Ruth DeVore 02 15 16 20 22A 28 | Allan Dorr 03 20 20A 27A 33A | Beulah Edwards 27 | Jeffery Evans 27A 34B |
| Tom Dedrick 18 31A | Gary Douglass 30 | Don & Sharon Edwards 22 | Judy Evans 10 27 |
| Keith Deherrera 27 | Eugene Dove 03 30A | Judy & Doug Eggelston 12 27 | Ed Evel 10 21 |
| Greg Deines 27 | Rhonda Doyens 27 | Dawn Egger 27 | J.S. Everett 27 |
| Robert Deines 27 | Dennis Drake 12 27 | Philip Egidi 18 20A 27A 34A 38 | ALbert Every 27 |
| Nancy & Ernie Delk 27 | Ray Drake 20 24 30 | Nadine & Randy Ehardt 27 | Joan Eye 12 27 |
| Delta County Commissioners Jim Ventrello 02 13 18 29 30 38 44 | Raymond C. Drake 20 | Louis Eidenschind 27 | Ronald Eye 12 27 |
| Delta County Livestock Assoc. Mark Roeber 20A 21 | Doris Dransfield 34A | Richard Elcianton 12 27 | Don Eyser 27 |
| Delta, City of Maria Forster 11 18 | Linda Dressel 27 | James Eldrose 27 | Mark Fagle 27 |
| Doug Dendy 27 | Ralph Drowne 10 36A 39 | Pat Eller 22 27 | Lieland Fair 19A 19B 19D 27 |
| Timothy Dennely 27 | Dawn Drussel 20 22 22A | Dan Ellsworth 27 | Chuck Farmer 27 |
| Tom Dennison 27 | Mike Duffey 27 | Phillip Ellsworth 22 34B | Jenny Farmer 27 |
| Max Devine 27 | John Dugan 27 | John Ellwanger 27 | R.L. Farmer 19A 19B 19C |
| Stanley Dial 27 | Jared Duke 27 | Don Emmons 27 | Jim Faughn 27 |
| Bill Dicamillo 27 | Roy Duncan 27 | Jeff Engelman 27 | Tom Faux 27 |
| | Daniel Dunlap 12 27 | Robert Ensley 27 | |

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| Steve Feller 12 27 | Joy Fox 27 | John Geesing 22 33B 33C 33F 36A | Ray Gotfredson 12 18 27 |
| Dave Fender 27 | Mildred Fox 27 | Mark Gentry 27 | Karla & Walter Graese 27 |
| Jason Ferguson 27 | Bryan Fraley 27 | Brandon George 27 | Lyndon and Violet Granat 10 |
| Anthony Fernandez 18 31A | Rick Franklin 22 | Kay George 10 | Ruth Granat 02 10 14 15 19A 20 22A 28 32 |
| Travis Fields 27 | Judy Frantz 02 06 10 26 | Mr. amd Mrs. K. George 17 22 | Grand Mesa Jeep Club 38 |
| First National Bank of Paonia Mitchell, Dunford, Kokesh 18 31A 38 | Don Fraser 02 10 20 22A | Larry Gerbaz 12 27 | Don Grande 27 |
| Andrew Fischer 27 | Chris Freeman 27 | Tammy Gettman 12 27 | Ernest Gray 27 |
| August Fischer 27 | Dale Frey 27 | Ernest Gianinatti 12 27 | Richard Green 18 20 |
| Glen Fisher 27 | Dawn Frey 27 | A. Gianinetti 12 27 | Harley Greer 27 |
| Linda Fisher 27 | David Fron 27 | Carol Gianinetti 12 27 | Denise Griffith 27 |
| Stephen Fisher 12 27 | JoAnn Frost 27 | Mark Gianinetti 12 27 | Donald Griffith 12 27 |
| Theresa Fitzgerald 20A | Lee Frost 27 | Mike Gianinetti 12 27 | Richard Griffith 12 27 |
| Darrel Flager 10 22A | Phil Fulbright 27 | Ruth Gibbons 27 | Mike Griggs 12 27 |
| Eldo Flager 12 27 | Deryl Fuller 20A | Mark Gill 10 36A | Russ Griswold 27 |
| Jerry Fleck 27 | Ray Fullinwider 27 | Mark Gillespie 27 | Brian Grita 27 |
| Rick Fleenar 27 | James Fullinwiner 27 | Phil Gilliam 27 | Scott Gross 12 27 |
| Gale Fletcher 27 | James Fuschaberger 27 | William Gilmore 10 16 | R.B. Grossman 20A |
| Greg Forbes 12 27 | Joesph Futz 27 | Melvin Glerup 27 | Ralph and Carolyn Guer- rie 15 22 |
| Wayne Ford 22 27 | Juan D. Gallegos 12 27 | George Goddard 27 | Paul Guillory 12 27 |
| Jamey Forsberg 27 | Edward Gamerdinger 18 19A 31A | John Godeski 12 27 | C.E. Guin 03 04 11 18 31 34A 35 |
| Ed and Shelly Forsman 12 27 | Bill Ganbe 27 | Marl Godfrey 27 | Dwight Gutherie 12 27 |
| Keith Fortney 09 22A 27 30 | Lane Gardner 27 | Edward Godiski 12 27 | Charles Hagen 27 |
| Adam Foster 12 27 | Teresa Garner 12 27 | Samuel Golden 27 | Jeff Hager 27 |
| William and Bonnie Founds 27 | JR Garrett 27 | Harding Goldson 18 19A 31A | Jeffery Hahn 34A |
| Diane Fox 20 | Joseph Garrett 27 | John & Mrs. Gorski 27 | Becky Hall 12 27 |
| Jay and Midge Fox 10 12 15 | Elna Gay 27 | Curt Gosnell 12 27 | Bruce Hall 27 |
| Jerry Fox 27 | Seth Gay 27 | Pamela Gossman 12 27 | Cecil Hall 27 |
| | Craig Geesing 04 22 24 | Catherine Gotfacston 27 | |

Doug Hall
 18 31A
Randy Hall
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Terry Hall
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Ron Halpin
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John Ham
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Ralph Hamilton
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Russ Hamilton
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Suzanne Hamilton
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George Hammerich
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F.C. Hammerness
 03 33A 33B 33C 34A
Kevin Hammond
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Charles Hanawalt
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Rob Hann
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Jerrold Hannse
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Bob and June Hannum
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Gary Hanson
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Laurie Harbert
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Lee Harder
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Frank Hardrick
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Brian Harger
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Scott Hargrove
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Liz Harless
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Loren Harnack
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Paul Harpter
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Gerald Harris
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J. Harris
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John Harris
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Tom Harrison
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Paul Hartley
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Priscilla Hartman
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Gary Hartrickson
 18 27 31A
Tad Hascall
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Carla & Dan Hatch
 12 27
Rick Hatfield
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Don Hawkins
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Vicki Hawkins
 03 18 27A 31 33A 33B
Lisa Hayes
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Peter Hayes
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Richard Hecker
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Ed and Mildred Hedrick
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Jon Hegland
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Calvin Heinly
 12 27
Mary Ellen Heinly
 12 27
Bill and Sandy Heley
 03 27A 31 33A 33B
Edwin Helgren
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Alan Helmick
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Jeffery Henni
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Jenny Henni
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Jack Henry
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R.V. Herman
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Terry Hert
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Cristal Hesby
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Eugene Hesse
 12 27
Hi Country Snowmobile Club Mary Ainslie
 20 22A
Heath and Sue Hibbard
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Brian Higgs
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John Higgs
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High Country News Betsy Marston
 20A 21 33A
Greg Hiler
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Alan Hill
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James Hill
 18 36A
Pat Hills
 19 22
Hillside Service Dan Williamson
 18 19 19A 19B 22 30
Larry Hinger
 20 22
Kathy Hinkle
 19D 20 27
Lynn Hinkle
 04 19B
Bob Hinkley
 12 27
Keith Hinricks
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Chris Hinton
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John Hinton
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Mike Hinton
 05 19D 27
Yvonne Hinton
 05 27 27
Carl Hoch
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Randy Hocker
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Dave Hockman
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Debbie Hocum
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Kevin Hocum
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Merle Hodges
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Jack and Pat Hodson
 22A
Jim Hodson
 22 22A
Don Hoffer
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Roger Hogan
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Walter Hogan
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Laverne Hoier
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Bob Holden
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Donald Holder
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Ernest Holder
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Charles Holesworth
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Jack Holland
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Lorreta Holland
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Robert Holme
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Bill Holt
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Fred Hopping
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Rose Hopping
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John Horey
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David Horn
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Leonard Horuer
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Julia Hosea
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Robert Hosea
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Jack Hough
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Shirley Hough
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Toni Houseweart
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Carl Howard
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Robert Howe
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Clayton Howell
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Bonnie Hudgeons
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Fred Hudgeons
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Dan Hudson
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Danial and Delaine Hudson
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|--------------------------------------|---|--|---|
| Jim Hudson 02 20 22A | Robert Ingoldby 01 27 | David Jones 11 22 | Dick Kendall 27 |
| John Huebsch 27 | Paul Ingram 27 | Melva Jones 11 16 | Georgia Kendall 27 |
| Dale Huff 27 | Jon Isaacs 27 | William Jones 27 | Joe Kendrick 12 27 |
| Doug Huff 27 | Jan Jackson 27 | Scott Jorgensen 15A 20A | Robert Wayne Kennedy 02 28 |
| Eugene Huffington 20A | Jim Jackson 27 | Richard Joy 27 | Jim Kent 06 27 28 9 |
| Kirk Huffington 34B | Jim and Jan Jackson 12 20 22A | Bill Jury 19D 22 28 | Scott Kenton 20A 29 |
| Mary Kay Hughes 21 34A 34B | Mike Jackson 27 | M.J. Jury 20 25 | Dixie Kenyson 27 |
| Bob and Ann Huisor 27 | Greg and Shawna Jacobs 19A 28 | Diane & Donald Kahle 27 | Larry Kessler 27 |
| Jeff Hull 27 | Joyce Janison 12 27 | John Kalus 27 | Chris Ketchum 27 |
| Dan Humnich 27 | Paul Janson 27 | Janice & Jerry Kaspar 27 | Stephen Ketter 27 |
| Donald Hunt 27 | Christine Jarus 34A | Herman Kasperiet 27 | Jeffery Kicla 27 |
| James Hunt 10 | Sevte Jay 27 | Dewayne Kasperiet 27 | George Kiefer 12 27 |
| Richard Hunt 27 | Tracy Jeferson 27 | Kenneth Kastella 27A 36 | Laurie Kiess 27 |
| Ryan and Mrs. Hunt 27 | Dawn Jeffryes 12 27 | Paul Kato 20A 27A 33A 33B | Tom & Vicki Kilmer 27 |
| Scott Hunt 27 | Michelle Jeffryes 12 27 | Herman & Luella Kauff- man 27 | Dennis King 20A 27A 33A |
| Steve Hunt 27 | Mike Jeffryes 12 27 | Jake Kauffman 27 | Julie Kirk 20 22 |
| Terry Hunt 27 | Nina Jenkins 12 27 | Rick Kauffman 02 22 | Kenney Kirk 20 22 29 |
| Mrs. Brian Hunter 27 | Grant Jennings 12 27 | Henrietta Keenan 21 | John Kirkpatrick 27 |
| Yvonne Hunter 19A 19B | Jack Jensen 27 | David Keiss 27 | Karey Klaus 27 |
| Susan Hussemann 27 | Cheryl Johnson 12 27 | Jeff Keith 27 | Julia Kleven 10 |
| Mitchell Huston 27 | Don and Joan Johnson 28 36A | Herbert and Myra Keller 02 04 21 22A 36A | Albert Kline 12 27 |
| Bob Hutchinson 10 | Edward Johnson 27 | Randy Keller 34A | Patrick Kloth 27 |
| Chris Hutchison 20A 35 36 | Jeff Johnson 18 27 31A | James and Terry Kellerby 25 | Jerry Knight 27 |
| Pat Hutchison 10 | John Johnson 27 | Melvin Kellog 10 | Katherine & Forrest Knobel 10 12 14 15 20 31A |
| WB Huttoa 27 | Larry Johnson 27 | Melvin Kellogg 27 | Amy Koch 12 27 |
| Samuel Hutton 27 | Morgan Johnson 12 27 | Carmen Kempf 12 27 | Dick Koch 12 27 |
| Erwin Impson 27 | Oint Johnson 19A 19B 19D 27 | Kenny Kempf 20 28 | Harold Koch 12 27 |
| Bob Inge 26 | Roger Johnson 10 19A | | |

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| Kathy Koch 12 27 | George B. Lange 27 | Russ Limberg 22 | Ronald Lusby 02 22 |
| Ryan Koch 12 27 | Linvall Lange 28 | Tim Lincoln 27 | Jerry Lusk 27 |
| Scott Koenigsfeld 31 | Mel Langland 10 | Gordon Lindholm 27 | Vanessa Lusk 27 |
| Cindy Kokesh 27 | James Langston 34A | David Linman 27 | John Luther 12 27 |
| Kim Kokesh 02 20 22A | Ronald and Mary Lasley 33A 33B 33C 34B | Tara Linn 27 | G.W. Lutsch 27 |
| Bill Kolb 27 | DeEtta Latta 27 | Tim Linn 27 | John W. Lyons 27 |
| Howard Konken 27 | Amanda Lauderbach 20 | Robert Locke 19 22 | Chris MacBeth 27 |
| Tyson Konken 27 | Preston Lauderbach 27 | Sheila Locke 22 | Cherie MacDonald 10 |
| Scott Kookan 27 | Larry Layton 27 | Paul Loe 12 27 | Rance MacDonald 04 22 |
| Leo Kopesz 12 27 | Peggy Layton 27 | Karl Logan 27 | Donald Macumber 27 |
| John Koppenhafer 12 22A 27 | Mike LeBlanc 27 | Mary Logan 27 | John Maddux 27 |
| Joseph Kovalchick 27 | Marjorie & Bud Leaman 27 | Roger Long 27 | Chuck Madison 27 |
| Michelle Kraai 27 | Jeff Leany 12 27 | Beverly & David Long- crier 27 | George Manley 18 |
| Jim Kraemer 27 | Earl Lee 12 27 | Richard & Christine Longrier 27 | James Mannie 27 |
| Michael Krattli 27 | Von Lee 27 | Amy Loper 20A | Joe Manzanakes 27 |
| Robert Kribel 34A | J.M. Lehman 10 | Esequiel Lopez 27 | Pat Marah 01 02 13 20 |
| Lyle Kuhl 18 19A 31A | Frank Leintz 12 27 | James Lord 12 27 | Patrick Douglas Marah 02 04 06 07 09 10 13 14 19 27 36A 42 |
| Steve Kuhl 18 | George Lemley 06 10 22 27 32 | Louisiana-Pacific Corp. Tim Kylo 18 | David Markham 27 |
| Bruce LLoyd 27 | Joan Lemley 27 | David Loveland 31A | Karen Marlof 27 |
| Chris LaFever 27 | Hershell Lenard 27 | William D. Low 27 | Patrick Marlof 27 |
| Marcia Laiminger 27 | Luann Lendiden 27 | John A. Lowe 27A 33A 34A | Paul Marshall 20 |
| Thomas & Dianne Lancas- ter 12 27 | Dexter Lewis 27 | Glen Lowell 22 36A | Clarence Martin 10 27 |
| Terri Lance 19 28 42 | Karen Lewis 33A 33B 33C 34A | James Lowell 12 20 22 | John Martin 02 05 13 14 15 17 18 19 19A 19C 20 22A 29 38 43 |
| Ed Land 27 | Larry Lewis 27 | Ralph Lue 27 | David Martinez 27 |
| Joe Land 27 | Linda Lewis 27 | Doug Luger 18 31A | Tony Martinez 27 |
| Danni Langdon 27A 34A | Lynn Lewis 27 | Cheryl Lumbandy 27 | Frank Maseto 12 27 |
| George Lange 27 | Howard Lilly 22 | Mike Lundquist 27 | |
| | Ronald Lilly 10 27 | | |

Michael Mast
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Debra McDaniel
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Eldon McDaniel
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Suzanne McDonald
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Stanley McFarland
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Ronald McKinley
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Ronnie McMahon
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John McRae
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Edmond McVercruyssen
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Russell Meaders
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Brandy Ann Meineke
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Frank Melody
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Gail Merrill
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Mesa County Commission-
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Lynn Metzger
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Rod Metzger
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Ken Meyer
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Ralph Meyer
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John Miawski
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Henry Mikesauh
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M.V. Milanowski
22A
Mile-Hi Snowmobile Club
of Denver Ralph Hamilton
02 13 14 19D 30
Carl Miller
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Dan Miller
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Robert Miller
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Robert J. Miller
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Scott Mills
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Andrew L. Miln
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Daniel Minchee
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Tessa Minderhall
12 27
Doug Mitchell
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Les Mitchell
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Angie Mitchem-Riggs
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Marvin Moeller
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Carmen Moffitt
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Earl Monroe
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Shawn Monson
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Marion Monteleone
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David Montoya
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Bob Moore
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Nancy and JC Moore
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Robert Moore
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Bob Moorehead
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Grover Morash
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Gary Morford
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K. Morgan
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Danny Morton
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David Jr. Moss
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Tammy Moss
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Motorcycle Trail Riding
Assoc. Glenn Neigenfind
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Motorcycle Trail Riding
Assoc. Joe Soderberg
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Motorcycle Trail Riding
Association Glenn Neigen-
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Motorcycle Trail Riding
Association Robert Beltz
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Roy Mudge
17 19D 22
Dick Mueller
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Frank Mueller
12 27
Chris Muhr
34A 34B
R.L. Mullen
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Noe Munoz
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Tom Murdock
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Cecil Murray
33A 33B 33C 34A
Richard Myers
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Norma Jo Nachtman
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| Alan Navande 27 | Randy Noyes 27 | W.B. Orr 20 4 | Marlene Peacock 27 |
| C.W. Neigenfind 21 27 | John O'Connell 27 | Keith Osborne 27 | Robert Pearce 27 |
| Dorothy Neigenfind 21 27 | Wilma Oase 27 | Beth Overacker 22 27 | Ron Pearce 27 |
| Glenn Neigenfind 17 18 20 | William Obert 27 | Michael Owens 22 25 | William Pearce 27 |
| Charles Neighbors 27 | Donald Odneal 10 27 | Fred Pace 27 | Lon Peaslee 12 27 |
| Charles T. Neighbors 20 | John and Elizabeth Offutt 33A 34A | Edward Pacheco 22 | Don Pechman 27 |
| Al Nelson 12 27 | Bill Ogden 20 | Lance, Julie Pacheco 10 19A 19B | Roger Peek 27 |
| Gene Nelson 18 31A | Bob Ogden 20 25 | Louie Pacheco 10 | Ellis Penland 27 |
| John Nelson 34A | Carolyn Ogden 21 36A | Ralph Pacheco 10 20 | Frank Penland 27 |
| Tammy Nelson 12 27 | John Ogden 12 27 | Judy Padilla 12 27 | Gerald Penland 18 19A 31A |
| Vernon Nelson 19 27 | Jannel Ogle 20 22 | Lee Padilla 12 27 | Brett Penley 27 |
| Joy Neuschwanger 27 | Laurie Ogle 22A | Melvin Page 19A | Forrest Pennel 10 24 27 |
| Robert Neve 27 | Sarah Ogle 20 36A | Robert Page 27 | Delight Pennell 10 18 |
| Mike Nevins 10 27 | Tyler Ogle 20 | Sandra Page 27 | Brad B. Percefull 09 19 20A |
| Linda Newell 12 27 | William Ogle 20 | Tracy Pagone 27 | Joe Perhovich 27 |
| Norman Nicholas 27 | Manuel Ogress 12 27 | Ella G. Painter 12 27 | Gordon Perry 27A 34A |
| Oscar Nickerson 10 | Wayne Oldham 05 24 | Truman Painter 12 27 | Jerry Peterson 27 |
| Todd Nickerson 10 22 | Don Olin 27 | J. Palmer 12 27 | JoAnn Peterson 27 |
| Dianne Niebling 10 | Bonnie Olson 27 | Paonia Peddler Bill Mann 18 20A | Petition 1 20 |
| Barbara Niswander 27 | Les Olson 27 | Jonny Parker 27 | Petition 2 18 22A 36A |
| Kenneth Nochtman 12 27 | Omni Investigations and Training Mike Nevins 10 | Nelson Parsons 27 | Petition 3 20 22A |
| Robert Noland 27 | Robert Onsager 27 | Larry Pauley 22 | Petition 6 13 14 20 22A |
| Shirley Noland 27 | Open House comments 02 03 11 13 15 16 18 35 42 | Jacque Paulson 27 | Joseph Petnils 10 18 31A |
| North Fork Hunting Club Ron Halpin 09 19B 19D 22A 24 27 27A 28 29 30 36A | James Opp 27 | James Payne 27 | John Petrich 04 |
| Northern Colorado Trail Riders Dan Blankenship 02 03 19C | Margaret Orijas 20A | John Payner 12 27 | Al Pfifer 27 |
| James Norton 27 | Lisa Orosq 27 | Charles Peacock 27 | Carl Pfifer 27 |
| Norma Jean & R.E. Norton 27 | Michael Orpi 27 | Judy Peacock 20 22 27 | Allen Phillips 27 |
| | | Larry Peacock 27 | Judith Picard 04 22A 26 27 |

Mike Picard
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George Pickering
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Ted Pierce
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Richard Piland
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Michael Pipnao
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Angela Pitt
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Daniel Pitt
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Edward Pitt
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Shirley Pitt
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Susan Pitt
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Velma & John Pitt
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Steve Pittel
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Emmitt E. Pittman
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Thea Pittman
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John Plane
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Jory Plotts
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Bill Poland
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Randall Polson
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Linda & Harvey Pontius
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Barb Poole
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Darold & Robin Popish
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Fred Popish
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Sharon Popish
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Ramon Porra
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Jack Porter
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Jack and Ruth Porter
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Roger Potuzak
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Craig Prammel
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John Price
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Mike Price
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Randal Price
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Walt Prince
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Ken Pulliam
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C. Queen
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Mark Quire
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Ric Quisenberry
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Jack Rader
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Juliana Rader
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G.H. Ragnes
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Faron Raike
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Gary Raisio
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David Rann
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Brian Raphe
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Brian Rapke
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Scott Rathbun
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Red River Snowmobile
Club Jerry Hogrefe
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Dave Redell
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Rebecca Redell
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Nathan Reed
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Joe Rendon
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Nick Repac
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Betty Resner
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Earl D. Resner
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Danny Retersa
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Ivy Rezak
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Bob Rhodes
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John Rhodes
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Mary Lee Rhodies
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Marl Richards
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Murle Richards
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H.L. Richardson
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Larry Richardson
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Richie Richardson
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Roy Richardson
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Steven Riley
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Gary Rinderle
22A 27
Linda Rinderle
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Richard Rivera
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Beth Robbins
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Cristin Robbins
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Thomas Robbins
22 27 28
Tom Robbins
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Trevor Robbins
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John R. Roberts
34A 34B
Kate Roberts
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Myles Roberts
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Victor and Dorothy
Roberts
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Gary Robi
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Jeff Robinson
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Jim Robinson
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Jose Luis Rodriguez
22A 26 27
Albert Rodriguez
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Mike Rodriguez
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Hermann Rohling
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William Rolf
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Randy Romanin
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Rick Romanin
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Domingo Romero
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JoAnn Romero
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Juan Romero
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Laido Romero
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Steven Romero
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Tom Romero
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Melvin Rothrock
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Ron Rowe
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Dave Ruck
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Steve Rupp
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Chris Ruske
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David E. Ruth
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Conrad Rylen
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Bryan Sabbavah
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Carlos Sanchez
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| Donald Scarrow 12 27 | Ron and Julia Scott 05 12 20A 35 36 | Harold Shiflet 27 | Jeff Smit 12 27 |
| Joyce Schad 27 | Ronald Scott 11 17 28 29 30 | Sauna Shiflet 27 | Bruce Smith 34A |
| Rex Schad 27 | Russell Scott 34A | Don Shilline 27 | Chester Marvin Smith 27 |
| Gogg Schaub 12 27 | Jerry and Betty Seale 02 20 22 22A 27 | Kathy Shoemaker 27 | Cyndi Smith 27 |
| Alan Schauster 27 | Robert Seaton 12 27 | Maggie Shoemaker 27 | Dennis Smith 27 |
| Jean & Tom Schauster 27 | E.J. Sedivy 27 | Mike Shoemaker 39 | Elizabeth Smith 21 |
| Jim Schauster 27 | David Seeber 27 | Rev. Roy E. Shrewsbury 31A | Jack Smith 02 31A 33D |
| Dan Scherer 27 | Rhonda Selders 12 27 | Sherry & Cal Shriver 12 27 | Ken Smith 21 |
| Jeff Schindler 27 | Colin Sevier 27 | Martha Shuss 27 | Matthew Smith 27 |
| Michael and Mona Schmalz 27 | Robert Sevier 27 | Melvin Sickels 27 | Richard Smith 27 |
| Dean Schmoker 27 | Richard and Marcia Shaffer 03 27A 33A 33B 33C | Sierra Club, Uncom- pahgre Club D.L. Langdon 20A 34A 34B 36 | George Snyder 27 |
| Edgar Schneider 12 27 | Steven Shaffer 27 | Sierra Club, Uncom- pahgre Group William Schapley 02 02 28 | Dean & Linda Soderquist 27 |
| Caren Schnittkee 27 | Charles Shalnut 27 | Tom Silva 18 27 31A | Lois Sorter 03 22A |
| Jackie Schoonover 02 24 | Michael Shaner 27 | Desiree Silvage 12 27 | Monika South 12 27 |
| Lue Schoonover 22 24 25 | Marianne Sharp 12 27 | Steve Simpson 22 | Lyle R. Sova 12 27 |
| Steven Schreiner 27 | Colin Shattuck 27 | John Sims 27 | Pat and Herb Specht 19A 19B 27 |
| George Schroeder 27 | Gary Shaw 02 10 | Daniel Sincavage 27 | James Spoon 27 |
| Patrick Schroeder 19A 19B 19D 27 | Michael Shears 04 22A 27 | Jim Sines 10 | Sportland CO. Inc. Wil- liam E. Maltby 18 20 22 |
| Ronald Schroeder 27 | Jack Sheets 27 | B. Skiles 27 | Spruce Lodge Miriam Ring 18 27 |
| Vic & Debra Schroeder 27 | Gary B. Sheldon 01 19D 22A 27 29 30 | Penny Skilos 27 | Otis Spurgin 14 |
| Rino Schubert 27 | Patrick Sheldon 27 | Aaron Skroggs 27 | Martin Squires 27 |
| Gail Schull 06 | Jane Shelton 27 | Gary Skulborstad 27 | Eldon Stachovich 27 |
| Mike Schull 05 06 30 | Ross Shelton 27 | Montie Slaughter 10 | Alan Staehle 10 27 |
| Jon Schultz 27 | Steven Shelton 10 | Todd Sledge 27 | Cary Staggs 27 |
| Francis Scidmore 12 27 | Ron Sherman 02 10 18 20 22 | Adam Slonksnes 27 | Terry Staley 27 |
| Harold Scidmore 12 27 | Robert Sherwood 18 19A 31A | Richard Smiddy 27 | Greg Standish 27 |
| Howard E. Scott 20A 35 38A | Terry Sherwood 27 | Eric Smirnow 01 27 | Victoria Stanford 27 |

Kathleen Starr
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Larry Stats
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Sidney Stauffer
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Leo Steady
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Ethel Steele
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Morris Stehman
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Dr. William D. Steigers
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Gerhart Stengel
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Scott Stephenson
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John Stevens
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Bruce Stevenson
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Diana Stone
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Eugene Stricklan
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Jenny Stroup
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Joan Sturgeon
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Lenore Styler
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Jeffery Sund
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Bob L. Sundermuir
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John Susen
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Denny Sutton
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Gary Sutton
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Ken Sutton
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Joe Swank
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Kaleb Swindle
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TBQ Sport Club Inc. Dan
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Brian Tallent
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Scott Tallent
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Kenneth Tate
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Homer Taylor
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J. Taylor
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Troy Taylor
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Marolyn Thomas
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A. Thompson
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Dava Thompson
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June Thompson
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Laura Thompson
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Orrin Thompson
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Patricia Thompson
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Tom Thompson
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Larry Thornton
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Thunder Mountain Wheel-
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Thunder Mountain Wheel-
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Bill Tiefenback
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Jim Timbriza
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Erron Todd
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Tim Tomasi
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Shane Tompkins
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Jenn Tonso
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Rodney Townsend
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George Tracy
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Carl Trader
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John Trammel
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John Trammell
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Dan Trih
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Jack Triplett
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Trout Unlimited J.
Stephen Craig
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Valley Chp. Bob Arm-
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Jay Trunkenbolz
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C.J. Turner
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John Turner
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Debra Turpin
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LaVon Turpin
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Chuck Uben
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David Ulman
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Uncompahgre Valley Asso-
ciation Elaine Barnhart
34A 34B
Brian Ungaro
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United 4WD Associations
Preston Stevens
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Michael Urban
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Steve Urbanski
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Leonard Valdez
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Lawrence Valtakis
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Mark Van Sickle
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Anne Ventrello
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| Jose Viguera 27 | Mark Wells 12 27 | Henry Willison 12 27 | Gregg Wyatt 27 |
| Paul Villiere 27 | Ernest Welsh 27 | Linda Willison 12 27 | Don Wylie 12 27 |
| Ronald Vogel 12 27 | Western Colo. Botanical Society Elizabeth Harris 34A | Willow Creek Outfitters 03 18 31 | Larry Yaklich 10 27 |
| Ralph Vogt 10 | Western Slope ATV Assoc. Charles Reicks 15 19A 22A 36A | James Wilson 27 | C.L. Young 10 25 |
| Carl Von Burg 02 22 27 | Dennis Whalen 27 | Kit Wilson 27 | Kenny Young 27 |
| Charles Vontoz 10 20 | Robert Wheeler 27 | Lamar Wilson 27 | Roger Young 12 27 |
| Douglas Walck 12 27 | Gary White 27 | Linda Wilson 22 27 | Mickey Zaller 27 |
| Frederic Walker 34B | Robert White 27 | M. Wilson 27 | Pat Zaller 27 |
| Mike Walsworth 27 | Judi Whiteman 12 27 | Wes Winfrey 12 27 | Martin Zallor 18 19A 31A |
| Vernon Walsworth 27 | Laurel Whiting 02 34A | Paul Wisecup 17 18 22A | Greg Zawikowski 18 19A 31A |
| Ron Walton 20 22 25 | Walt Whitman 27 | David Wiseman 12 27 | Carl Zohner 22A |
| Ronald Walton 24 27 | Dave Wickersham 27 | Frankie Wist 27 | |
| Jasyce Ward 27 | Mike Wickerson 27 | Douglas Wolf 19A 19B 19D 27 | |
| Lyndell Ward 10 27 | Charles Wickham 27 | Jan Wolf 27 | |
| Robert Ward 27 | Dinah Wiggins 27 | Mel and Jan Wolf 27 | |
| William Warnel 12 27 | Martin, Jr. Wilcox 19B | William Wolf 20 | |
| Dawn Marie Warner 12 27 | Monte Wilcox 19B | Women's Surface Creek Saddle Club Melanie Son 04 28 42 | |
| Levi Warren 27 | Lee Wildhaber 04 | Bernard Wood 19 | |
| John Warrender 27 | Dana Wilfong 27 | Chad M. Wood 31A | |
| Nancy Warrender 27 | Loren Wilford 27 | Gary Woods 02 18 20 22A | |
| David Watson 27 | Kristy Willesen 12 27 | Dale Wooldridge 12 27 | |
| David Watters 27 | David Williams 12 27 | Ronda and Jeff Wrich 27 | |
| Michael Watts 27 | Dennis Williams 27 | Greg Wright 27 | |
| Scott Wear 12 27 | Leslie Williams 27 | Larry Wright 27 | |
| Bill Weber 27 | Lori Williams 12 27 | Linda Wright 27 | |
| Paul Wegener 10 22 | Jerry Willingham 27 | L.E. Wunderwald 09 18 36A | |
| Bruce Welch 27 | Mark Willingham 27 | Norma Wunderwald 09 12 18 36A | |
| C.W. Wellings 18 31A | | | |

**Appendix C -
Maps**

USDA FOREST SERVICE
GRAND MESA, UNCOMPAGHGRE, & GUNNISON
NATIONAL FORESTS
2250 HIGHWAY 50
DELTA CO 81416-2485

USDA FOREST SERVICE
GRAND MESA, UNCOMPAGHGRE, & GUNNISON
NATIONAL FORESTS
2250 HIGHWAY 50
DELTA CO 81416-2485

**Appendix D -
Planning Area Descriptions**

Appendix D - Planning Area Descriptions

1. Battlement Mesa

- High and moderate geologic hazard and instability throughout the area.
- Area is former RARE II area, received non-wilderness recommendation.
- Terrain mostly rugged, sharply incised drainages, opportunities for off-route travel is limited to parks along crest, less than 10% of area.
- Brush Creek is a native species fishery.
- An isolated herd of bighorn sheep lives in the Sunnyside portion.
- Big game winter range occurs along the lower elevations.
- Big game transition range is found in this area.
- Riparian and aspen plant associations designated as critical elk calving areas by the Colorado Division of Wildlife .
- Upland game bird winter range occurs on this area.
- Area is popular for hunting and recreational ATV touring; hiking and horseback riding are minor uses.
- Off-route game retrieval with motorized vehicles is a problem of non-compliance with the existing "travel only on designated routes" travel restriction.
- Off-route motorized travel during the hunting season is resulting in big game animals being displaced.
- Forest recreation strategy is to continue to provide for the primitive hunting experience.
- Current travel management on Battlement Mesa portion restricts motorized travel to designated routes. Sunnyside portion shown as open to off-route travel but most of the terrain is impassable.
- Conflicting uses on existing travel ways.
- Concerns of outfitter/guide operations and desired hunting quality being negatively impacted by motorized activity.
- Access points across private land are limited.
- Some encroachment by private trails and water user traffic along Forest boundary.
- Need to coordinate management with White River National Forest for north slope area.

2. Mud Hill/Road Gulch/Hightower

- High and moderate geologic hazard and instability throughout the area.
- Open and rolling terrain, soils have fine texture and little structure.
- Extensive watershed rehabilitation work over most of area because of past devegetation by overgrazing.
- Big game winter range in northern half or area.

Grand Mesa Travel Management Plan EA

- Current travel management has winter range closure to all motorized use from approximately November 15 through April 15. Off-route travel allowed throughout area rest of year.
- Heavy use during hunting season. Travel impacts from motorized hunting traffic on soil and water resources (Photos and documentation in district files.)

3. Porter

- Mostly moderate and partially high geologic hazard ratings in the area.
- Critical elk calving and summer concentration areas identified by the Colorado Division of Wildlife.
- Grouse and ptarmigan reproduction areas occur in this planning area.
- Higher concentrations of migrant (neotropical) bird and raptor nesting and foraging areas than other parts of Grand Mesa.
- Grazing is significant permitted activity.
- Popular hunting area.
- Current travel management allows motorized travel throughout area.
- Rough terrain and heavy cover generally not attractive to off-road use; a couple of 4x4 routes provide through access but are not designed or constructed for all weather use; ATV activity is resulting in new route development and some soil and water impacts. (Photos and documentation in district files.)

4. Ruth Mountain

- Most of area has moderate geologic hazard designation.
- Locale is series of generally broad ridges leading from Ruth Mountain to Spruce Mountain, moderately steep, heavily forested.
- Elk calving (in Crooked Creek) and summer concentration areas.
- Grouse and ptarmigan reproduction areas occur in this planning area.
- Limited access routes result in area providing solitude for many wildlife species with higher concentrations of animals than elsewhere on Forest.
- Grazing is significant permitted use.
- Popular hunting area.
- Growing interest from mountain bikers, ATV touring and horseback users.
- No special travel management restrictions are currently in place, except on Powerline (closed to all motorized travel).
- Terrain easily negotiable by off-road vehicles rather limited to No Good Park and The Burn where topography is open and gentle. Off-road travel impacts evident in these areas (Photos and documentation in district files.)
- User developed access routes developing. These routes are not located or designed by FS and cannot support heavy wet weather use.

5. Willow Park/Plateau Creek

- High and moderate geologic hazard.

- Open terrain in Willow Park, Buzzard Park, Plateau and Wagon Park is susceptible to off-road damage.
- Important elk calving and summer concentration habitat.
- Grouse and ptarmigan reproduction areas occur in this planning area.
- Limited access routes result in area providing solitude for many wildlife species with higher concentrations of animals than elsewhere on Forest.
- Grazing is significant permitted use.
- Popular area for hunting, horseback and ATV touring.
- Part of area currently closed year-round to motorized travel except on designated routes (Silver Spruce Trail, High Trail, Monument Trail). Remainder of area has no travel restrictions.
- Area essentially undeveloped, interior access via a few low standard 4x4 roads. Access has just evolved, rather than having been designated and constructed, routes have no durable surfaces.

6. Flat Tops

- Some high and moderate geologic hazard in northern part of area, on steeper slopes.
- Area is mesa top with glades and timbered groves except for steeper, timbered flanks; open areas negotiable for off-route travel.
- Elk summer concentration area.
- Grouse and ptarmigan reproduction areas occur in this planning area.
- Limited access routes results in area providing solitude for many wildlife species with higher concentrations of animals than elsewhere on Forest.
- Hunting, some fishing, horseback riding, ATV touring are principal uses.
- Part of former Priest Mountain RARE II area.
- Current travel management excludes full sized vehicles and restricts ATVs to three designated routes (Silver Spruce Trail, High Trail, Monument Trail).
- Non-compliance with motorized restrictions common in hunting season.
- Development of nonsystem routes is escalating.
- Access to west end of Silver Spruce Trail has been closed by private landowner.
- Nonsystem trails are encroaching from private land in Wilson Creek and Annie Holland Creek.
- Water users have created nonsystem route to Monument Reservoir #2.

7. Upper Leon

- Soils are susceptible to erosion and rutting.
- Area comprised of several broad drainage bottoms at headwaters of Leon Creek.
- Grazing is significant permitted use.
- Popular uses are hunting, fishing in streams and several reservoirs, recreational driving.
- Existing snowmobile route designation causes some confusion about what are approved motorized vehicle routes (i.e. West Leon).

- East half currently has travel management restricting motorized travel to designated routes. West half has no travel restrictions.
- Access to area recently improved from 4WD & ATV to pickup along FDR 80 to Monument Creek (result of oil and gas well access).
- There is evidence of travel ways encroaching in riparian and seasonally wet places (Photos in district files).
- Three irrigation reservoirs in area: Hunter, Colby Horse Park and Leon Lake.

8. Leroux Creek Drainage to Marcott Creek Road

- Some high and moderate geologic hazard areas in southwest corner of area.
- Municipal watersheds for Hotchkiss (Leroux Creek) and Cedaredge (Surface Creek).
- Concentration of reservoirs in upper Leroux Creek drainages.
- Wetlands scattered throughout the area.
- Area south and west of Green Mountain is important wildlife solitude area, especially for elk.
- Amphibian populations present in numerous still backwater areas.
- Major uses are during hunting seasons and for access to irrigation reservoirs.
- Current travel management restricts motorized travel to designated routes.
- Use off of main road is primarily by 4x4 vehicles and ATVs.
- Complaints of noncompliance with travel management are common, major areas of noncompliance along Green Mountain Trail and upper Duke Basin by ATVs.
- Green Mountain Trail is in poor to very poor condition. Trail marking lacking.
- 4x4 compliance is generally good except for some noncompliance at the West Leroux Creek crossing.
- A number of old 4x4 routes have been closed, ripped and seeded. Protection of this investment is necessary.
- Generally adequate system for 4x4 roads and trails accessing reservoirs in the drainage.
- Recent upgrading and graveling of Leroux Creek road has greatly increased the accessibility of this area to recreation traffic.
- Good road access to Leroux Creek drainage. Easily controlled access point at the Forest boundary.
- Lack of adequate trailhead facility at the end of graveled Leroux Creek Road.
- Area west of Green Mountain accessed only by Green Mountain Trail.
- Trails provide access into Collbran and Paonia Districts.
- Marcott Creek Road provides 4x4 access to west side of the area.
- The Sunlight to Powderhorn (S-P) snowmobile trail crosses this area.

9. Marcott Creek to Hwy. 65

- Some high and mostly moderate geologic hazard designation throughout the area..
- Terrain, vegetation and soils are generally stable and capable of supporting off-route travel, provided sensitive spots are avoided.
- Relic native wetland plant communities are scattered throughout this area.

- Area contains many irrigation reservoirs which are popular fishing spots.
- Youngs Creek drainages will be managed for Colorado River cutthroat trout fisheries by the Forest and the Colorado Division of Wildlife.
- This is one of the heaviest used dispersed recreation areas on the Grand Mesa.
- Visual concerns exist in some areas (i.e. along major travel corridors). Management activities should not be visually evident.
- Entire area is presently open to off road vehicle use, both by 4x4 and ATV users.
- An extensive network of nonsystem 4x4 and ATV routes has been developed mainly to access the reservoirs.
- Many of the 4x4 routes are poorly located, with little or not drainage features and are in very poor condition.
- A number of undeveloped, uncontrolled roads and parking areas have been recently closed, hardened or relocated around Eggleston, Youngs Creek and Park Reservoirs.
- The Sunlight to Powderhorn snowmobile trail crosses this area.

10. Highway 65 and Trickle Park Road Corridor

- Most of the corridor is within moderate geologic hazard area.
- Several municipal watersheds along Ward Creek (Orchard City) and Kannah Creek (Grand Junction) are partially within this area.
- 9 campgrounds, 3 picnic grounds, 5 trailheads, 6 winter trailheads, Visitor Center within corridor.
- High visual quality concerns - management activities should not be visible.
- The Crag Crest National Recreation Trail lies along the north central edge of this area. Travel on the upper loop of this trail is limited to foot use only. The lower loop is available to all non-motorized uses (i.e. foot, horse, mountain bike). It is the most heavily used trail on the Grand Mesa. Adequate access and parking is provided in the area of Eggleston Lake and Grand Mesa Lodge.
- A new system of foot trail (some accessible) have been built around Island Lake, connecting several of the campgrounds.
- Three networks of cross-country ski trails (Crag Crest National Recreation Ski Trail [also called County Line], Skyway Cross-Country Ski Trail, Ward Lake Cross-Country Ski Trail) are within and accessed from this corridor.
- Several snowmobile routes, including the Sunlight to Powderhorn trail, cross this corridor and snowmobile open areas are within and adjacent to this corridor.
- The current Travel Management prescription for this area restricts motorized travel to designated routes only.
- Hwy 65 has been designated the Grand Mesa Scenic and Historic Byway.
- No major areas of noncompliance are known.

11. Highway 65 to Alkali Basin, Below the Rim

- The area is subject to mass soil failure and several recent examples are present near Doughspoon and Porter Reservoirs. The entire area has moderate to high geologic hazard.
- Municipal watersheds for Delta are located in this area (Dirty George Creek, Oak Creek, Doughspoon Creek).

Grand Mesa Travel Management Plan EA

- Doughspoon complex soils are remnants of glacial till from basalt, on moderately gentle slopes (5-15%). These areas are generally well drained deeper complexes. Rock fragments remain in the soil and subsurface zones. Shrinking and swelling behaviors are evident. Recreational potential are classified as fair to poor due to subsurface soil textures and slow permeability traits.
- The lower elevations of this area are covered with heavy oak brush, effectively limiting travel to existing travel routes.
- Disturbed sites tend to dry out resulting in changes in plant communities from more mesic to xeric species.
- The area from under the Granby Reservoirs to the Porter Reservoirs has been identified by the CDOW as important for elk calving and solitude and serves as transition range in the spring and fall.
- Big game winter range along lower elevations of area.
- Most use is for fishing access, reservoir maintenance and fall hunting.
- The Granby Road is a well known and favored rough 4x4 road and has offered a challenge for this type of use for many years.
- Several ATV and motorcycle routes have been worn into place in recent years, connecting the Pipeline and Granby Roads.
- The Blue Grouse Trail has been and is still used primarily by foot/horse users east of Dirty George Creek.
- The upper part of the Bull and Brown Trail is used as a motorized route by motorcycles and ATV users.
- The current travel management allows unrestricted vehicle use on and off-route throughout the area.
- Roads are mostly 4x4 accessible and generally in poor to very poor condition.
- Some old redundant routes (parallel routes) have recently been closed, ripped and seeded due to soils and wildlife concerns.

12. Lands End and Indian Point

- Area has moderate geologic hazard designation.
- Soils are often wet and saturated. Subterranean water flows are significant and part of municipal watershed sources.
- Entire area included in municipal watersheds for Delta and Grand Junction.
- Relic native plant communities (Grand Mesa penstemon *Penstemon mensarum*) are common throughout the area. This is a candidate plant species for listing as threatened.
- Krummholz-like plant community attributes occur along the mesa rim. These communities are rare and unique below tree line and contain sensitive and fragile plant associations.
- Elk summer concentration area on Indian Point.
- Use of areas other than the Lands End Road is highest during hunting season.
- Current travel management has no motorized travel restriction in the Lands End portion and along Flowing Park Road. The Indian Point area southwest of Flowing Park Reservoir is closed to motorized travel yearlong except on designated routes; however, no routes have been designated for motorized use. Snowmobile travel is allowed in the Indian Point area after November 15.

- Area is presently moderately roaded with heaviest use occurring on the high standard Lands End Road to the Lands End Observatory. The Lands End Road from Hwy. 65 to the Land End Observatory is part of the Grand Mesa Scenic and Historic Byway.
- Motorized use is increasing in the area with off-route use mainly by ATV and motorcycles.
- A number of lower standard roads access much of the Lands End and Flowing Park areas.
- The existing road system provides adequate access to most of this area.
- Maintained Lands End Loop snowmobile trail, which is also part of the Sunlight to Powderhorn Snowmobile network.

13. Alkali/Kannah Creek/Whitewater Basin

- Most of area south of Lands End Road is former RARE II area. Received a wilderness recommendation in RARE II but has not been designated for any special wilderness management. Southern boundary shared with BLM Adobe Badland WSA (received non-wilderness recommendation from BLM).
- Area is classified as high (just below mesa rim) and moderate (remainder of area) geologic hazard areas. The area is subject to mass soil failure with a number of recent and active slump areas.
- Kannah Creek Basin is municipal watershed for Grand Junction.
- Very high wildlife values in this area, particularly winter range values in the lower elevations. A portion of the area is also considered important elk calving.
- Winter motorized travel closure along lower portion of Lands End Road to protect big game winter range is currently in effect.
- Area is primarily used in spring, summer and fall, with heaviest use in hunting season.
- This area has been managed for no motorized access for many years, except for the Lands End Road corridor.
- Area has extensive foot/horse trail system.
- Forest recreation strategy emphasizes maintaining more primitive non-motorized trails for foot and horseback activities.
- FS, BLM and City of Grand Junction cooperating in development of improved trailhead facilities in lower Kannah Creek and at Carson Lake.

14. Mesa Lakes

- High and moderate geologic hazard.
- Soils are often saturated and wetland communities are common.
- Abundant neotropical bird, amphibian and wetland plant concentrations scattered throughout the area due to high concentration of wetland communities.
- Golden eagle habitat found along the mesa rim.
- Visual quality and high quality, short duration recreation experience for transient visitors very important.
- Current travel management has closure to motorized vehicles including snowmobiles in west two-thirds of area for public safety reasons and to avoid the Powderhorn Ski Area special use permit. Eastern third has no travel restrictions.

Grand Mesa Travel Management Plan EA

- West Bench trail closed to motorized use except for permitted use from Powderhorn Ski Area.
- Trails not well marked, most so rocky they are uninviting to motorized users.
- Area has high concentration of development and visitor use: Mesa Lakes Guard Station serves as a visitor information center, a summer home group (32 homes) and Mesa Lakes Resort occur in this area.
- Area is adjacent to Grand Mesa Scenic and Historic Byway and receives heavy day use traffic.

15. Coon/Bull/Cottonwood

- High and moderate geologic hazards.
- Soils are not resistant to rutting; without surfacing tread-ways quickly displace and erode; water crossings are bog holes; users create repetitive by-passes as rocky stretches and bogs develop.
- Soils are often saturated and wetland communities are common.
- Bull Basin area has many unique microsites and relic areas. Relic areas of soils derived from alluvium and herbaceous plant materials are scattered throughout the area. These areas are typically poorly to very poorly drained on gentle slopes (0-10%). Water tables fluxuate close to soil surfaces, making them poorly suited for recreational development. These areas were historic flood plains.
- Concentration of reservoirs in upper Bull and Cottonwood drainages.
- Unique wetland and spring associations occur in this area.
- Fisheries, waterfowl and wetland species are concentrated and often in rare associations for the Grand Mesa.
- Elk summer concentration areas.
- Abundant neotropical bird, amphibian and wetland plant concentrations scattered throughout the area due to high concentration of wetland communities.
- Apparent trend toward more hikers, bicyclists and cross-country skiers throughout area.
- No trailheads or visitor signing; poor route identification.
- Current travel management map shows entire area with no motorized travel restriction. Travel availability guide has yearlong motorized travel closure in northwest corner of area, north of Twin Reservoir to protect soil and wildlife resources. (Closed in Decision Notice for Long Slough EA.)
- Motorized travel closure not honored well by private landowners at foot of Mesa (Documentation in district project files).
- No public access from below (north) the Forest.
- Good peripheral access from Hwy 65 and Cottonwood Road.
- Numerous popular fishing reservoirs and easement right irrigation facilities which need frequent access by water commissioners and permit holders for maintenance/reconstruction.
- Nonsystem trails have been developed and system trails have been degraded by full size 4WD vehicles.

16. Horse Mountain/Bonham

- Open terrain and better drained soils lend to some off-road travel.

- Municipal watershed for rural Grand Junction area in Big Creek drainage.
- Soils are often saturated and wetland communities are common.
- Concentration of reservoirs in upper Big Creek drainage.
- Abundant neotropical bird, amphibian and wetland plant concentrations scattered throughout the area due to high concentration of wetland communities.
- Resource damage from full sized vehicles in reservoir riparian zones is common (Photos in district files).
- Numerous popular fishing reservoirs.
- Elk summer concentration area along northern half of area.
- Visual quality is less critical, the presence/evidence of various resource uses is acceptable.
- Most visitors are destined for a certain fishing or hunting spot.
- Current travel management has no travel restrictions.
- Good local access from Trickle Park and Cottonwood Roads.

17. Sheep Flats/Young Lake

- Some high and moderate geologic hazard areas on mesa flank.
- Soils are easily disturbed when wet. The spruce/fir habitat and natural high water tables make for saturated soil conditions year round.
- Youngs Creek has many unique microsites and relic areas of soils derived from alluvium and herbaceous plant materials. These areas are typically poorly to very poorly drained on gentle slopes (0-10%). Water tables fluxuate close to soil surfaces, making them poorly suited for recreational development.
- Terrain is open enough to facilitate a good deal of indiscriminate off-road travel.
- High concentration of amphibians in and around Sheep Flats, in the reservoirs and in wet areas associated with the spruce/fir habitat type.
- Bald eagles and other raptors are known to forage in the area throughout the summer.
- Elk calving and summer concentration areas.
- Road density reduces security habitat.
- Travel to fishing spots and operation of irrigation reservoirs and ditches are major access uses.
- Current travel management has no travel restrictions.
- There are three 4x4 roads bisecting the areas which are utilized for hunting, fishing and minor amounts of recreational driving. These are mostly ill-located, bog-holed and eroding. Spurs have developed to circumvent sections that have become impassable. Wetland and riparian vegetation have been lost and continue to be annually impacted.
- Most damage is caused by full sized vehicles on and off routes (Photos and documentation in district files).
- Timber sale roads are creating higher standard access into core area and replacing crude user made trails. Newer roads are not surfaced and will soon deteriorate from indiscriminate wet weather use.
- Stock trails and private nonsystem routes accessing private land at foot of mesa are developing.
- Public access to north mesa flank desirable .

18. Fruita Division

- Municipal watershed for Fruita.
- Important big game security areas.
- Relic willow/wetland habitats are found in this area.
- Waterfowl habitat is found around lakes and reservoirs.
- Current travel management restricts motorized travel to designated routes.

**Appendix E -
Tables of System Roads and Trails**

Appendix E - System Roads and Trails

The following tables list all system roads and trails on the Grand Mesa National Forest. The existing travel management for each is shown in the column under Alternative 1 (Alt. 1), the No Action alternative. The proposed travel management for each road and trail for alternatives 2 (1991 Plan), 3 (Proposed Action) and 4 (Thunder Mountain Wheelers Proposal) are shown in columns Alt. 2, Alt. 3 and Alt. 4, respectively.

| Road Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
|---------------------------|-------------------|----------------|--------|--------|-------|-------|
| State Highway 65 | 065 | 20.00 | O | O | O | O |
| Land Of Lakes Picnic Area | 117 | 0.20 | O | O | O | O |
| Trickle Park | 121 | 2.60 | O | O | O | O |
| Twilight Campground | 121.1B | 0.20 | O | O | O | O |
| Mesa Lakes | 252 | 0.60 | O | O | O | O |
| Jumbo Campground | 252.1A | 0.80 | O | O | O | O |
| Mesa Lakes Reservoir | 252.1B | 0.50 | O | O | O | O |
| Mesa Lakes Resort | 252.1D | 0.20 | O | O | O | O |
| Mesa Lakes Picnic Area | 278 | 0.20 | O | O | O | O |
| | TOTAL | 25.30 | | | | |
| | TOTAL OPEN | | 25.30 | 25.30 | 25.30 | 25.30 |

O = OPEN to licensed motorized and non-motorized traffic.

| Road Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
|---------------------------|------------|-----------------------|---------------|---------------|--------------|--------------|
| Lands End | 100 | 23.11 | O | O | O | O+ |
| Flowing Park | 109 | 6.00 | O | O | O | O+ |
| Granby Parking | 115.1A | 0.10 | O | O | O | O+ |
| Island Lake | 116 | 2.20 | O | O | O | O+ |
| Island Lake Campground | 116.1A | 0.90 | O | O | O | O+ |
| Grand Mesa Lodge | 116.1B | 0.20 | O | O | O | O+ |
| Little Bear Campground | 116.1D | 0.60 | O | O | O | O+ |
| Island Lake Marina | 116.1E | 0.30 | O | O | O | O+ |
| Scales | 118 | 3.12 | C | C | C | O++ |
| Carp Lake Campground | 120 | 0.30 | O | O | O | O+ |
| Trickle Park | 121 | 13.60 | O | O | O | O+ |
| Carp Lake VIS Parking | 121.1A | 0.20 | O | O | O | O+ |
| Valley View Campground | 121.1C | 0.10 | O | O | O | O+ |
| Ward Lake Campground | 121.1D | 1.00 | O | O | O | O+ |
| Wardway Picnic Area | 121.1E | 0.10 | O | O | O | O+ |
| Ward Lake Ranger Station | 121.1F | 0.20 | O | O | O | O+ |
| Eggleston Lake Campground | 121.3A | 0.20 | O | O | O | O+ |
| Crag Crest Campground | 121.3B | 0.30 | O | O | O | O+ |
| Trickle Park Campground | 121.3D | 0.10 | O | O | O | O+ |
| Youngs Creek Res. #3 | 121.3G | 0.20 | O | O | O | O+ |
| Military Park Reservoir | 121.3H | 0.10 | O | O | O | O+ |
| Vela Boat Ramp | 121.3I | 0.10 | O | O | O | O+ |
| Eggleston Boat Ramp | 121.3J | 0.20 | O | O | O | O+ |
| Eggleston Parking | 121.3K | 0.10 | O | O | O | O+ |
| Crag Crest East Parking | 121.3L | 0.10 | O | O | O | O+ |
| Elk Park Parking | 121.3M | 0.10 | O | O | O | O+ |
| Big Creek Campground | 121.4A | 1.00 | O | O | O | O+ |
| Old Grand Mesa Road | 123 | 5.60 | O | O | O | O+ |
| Kiser Creek Campground | 123.1A | 0.20 | O | O | O | O+ |
| Surface Creek Road | 125 | 5.12 | O | O | O | O+ |
| Trickle Park RV Parking | 125.1D | 0.10 | O | O | O | O+ |
| Trickle Park Boat Ramp | 125.1E | 0.20 | O | O | O | O+ |
| Weir & Johnson Road | 126 | 2.99 | O | O | O | O+ |
| Leroux Creek | 128 | 8.40 | O | O | O | O+ |
| Hay Park | 129 | 3.60 | O | O | O | O+ |

| Road Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
|-----------------------------|---------------------|----------------|--------|--------|--------|--------|
| Crag Crest West Parking | 131 | 0.20 | O | O | O | O+ |
| Drill Site Road | 250 | 0.30 | O | O | O | O+ |
| Sunset | 252.1C | 0.70 | O | O | O | O+ |
| Spruce Grove Campground | 255 | 1.00 | O | O | O | O+ |
| Cottonwood Lakes Campground | 257.1A | 1.00 | O | O | O | O+ |
| Bonham Picnic Area | 257.1C | 0.70 | O | O | O | O+ |
| Cottonwood Lake Parking | 257.1D | 0.10 | O | O | O | O+ |
| Buzzard Divide | 265 | 15.39 | O | O | O | O+ |
| Hightower Ranger Station | 265.2A | 0.20 | C | C | C | C |
| Crooked Creek | 265.2H | 0.40 | C | C | C | O++ |
| Silt | 270 | 3.80 | O | O | O | O+ |
| Brush Creek | 272 | 2.20 | O | O | O | O+ |
| Sheep Flats | 279 | 1.40 | O | O | O | O+ |
| Sheep Flats Spur A | 279.1A | 0.80 | O | O | O | O+ |
| Fruita Picnic Area | 400.2D | 0.20 | O | O | O | O+ |
| | TOTAL | 109.13 | | | | |
| | TOTAL OPEN | | 105.41 | 105.41 | 105.41 | 108.93 |
| | TOTAL CLOSED | | 3.72 | 3.72 | 3.72 | 0.20 |

O = OPEN to licensed motorized and non-motorized traffic (not motorized trail vehicles).

O+ = OPEN to licensed and unlicensed motorized and non-motorized traffic.

O++ = OPEN to motorized and non-motorized traffic after administrative/timber sale work completed.

C = CLOSED to motorized traffic, open to non-motorized traffic.

| Road Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
|---------------------------|--------|----------------|--------|--------|-------|-------|
| Wild Rose Picnic Area | 100.2B | 0.30 | O | O | O | O |
| Shirttail Overlook | 100.3C | 0.20 | O | O | O | O |
| Palisade Point | 103 | 4.50 | O | O | O | O |
| Anderson Reservoir | 105 | 8.70 | O | O | O | O |
| Lands End Parking Area | 105.1A | 0.10 | O | O | O | O |
| Anderson Reservoir Spur E | 105.1E | 2.52 | C | C | C | O++ |
| Rim Timber Sale Spur F | 105.1F | 0.20 | C | C | C | O++ |
| Rim Timber Sale Spur G | 105.1G | 0.28 | C | C | C | O++ |

| Road Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
|---------------------------|------------|-----------------------|---------------|---------------|--------------|--------------|
| Rim Timber Sale Spur H | 105.1H | 0.46 | C | C | C | O++ |
| Mesa Point | 106 | 6.00 | C | C | C | O++ |
| Basin Top | 107 | 1.82 | C | C | C | O++ |
| Basin Top Spur A | 107.1A | 0.43 | C | C | C | O++ |
| Basin Top Spur B | 107.1B | 0.10 | C | C | C | O++ |
| Carson Lake | 108 | 2.60 | O | O | O | O |
| Rim Timber Sale Spur A | 108.1A | 0.75 | C | C | C | O++ |
| Flowing Park Spur 1E | 109.1E | 1.10 | O | O | C | O |
| Flowing Park Spur 2A | 109.2A | 0.80 | O | C | O | O |
| Flowing Park Spur 2B | 109.2B | 1.50 | O | C | C | O |
| Flowing Park Spur 2C | 109.2C | 0.62 | O | C | C | O |
| Big Spruce | 111 | 0.70 | C | C | C | O++ |
| Big Spruce Spur 1A | 111.1A | 0.47 | C | C | C | O++ |
| Big Spruce Spur 1B | 111.1B | 0.70 | C | C | C | O++ |
| Big Spruce Spur 1C | 111.1C | 0.48 | C | C | C | O++ |
| Atkinson Reservoir Spur A | 114.1A | 0.60 | C | C | C | O++ |
| Atkinson Reservoir Spur B | 114.1B | 0.40 | C | C | C | O++ |
| Atkinson Reservoir Spur C | 114.1C | 0.20 | C | C | C | O++ |
| Atkinson Reservoir Spur D | 114.1D | 0.60 | C | C | C | O++ |
| Scales Spur A | 118.1A | 0.99 | C | C | C | O++ |
| Scales Spur B | 118.1B | 0.87 | C | C | C | O++ |
| Matt Arch | 120.1A | 0.20 | O | O | O | O |
| Fish Hawk Campground | 121.3C | 0.10 | O | O | O | O |
| Trickle Park Spur 3E | 121.3E | 0.20 | C | C | C | O++ |
| Trickle Park Spur 3F | 121.3F | 0.14 | C | C | C | O++ |
| Aries B | 125.1B | 0.21 | C | C | C | O++ |
| Aries C | 125.1C | 0.10 | C | C | C | O++ |
| Twin Lakes Campground | 126.1A | 0.75 | O | O | O | O |
| Weir & Johnson Spur 1B | 126.1B | 1.32 | O | C | C | O |
| Weir & Johnson Spur 1C | 126.1C | 0.27 | C | C | C | O++ |
| Weir & Johnson Spur 1D | 126.1D | 0.25 | C | C | C | O++ |
| Bailey | 128.1B | 2.70 | O | O | O | O |
| Duke Basin | 128.1G | 1.50 | O | O | O | O |
| Hay Park Spur A | 129.1A | 0.50 | C | MT | MT | O++ |
| Youngs Creek Res. #1 | 129.1B | 0.10 | O | O | O | O |

| Road Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
|-----------------------------|------------|---------------------------|---------------|---------------|--------------|--------------|
| Hay Park Spur C | 129.1C | 1.32 | C | C | C | O++ |
| Hay Park Spur D | 129.1D | 0.13 | C | C | C | O++ |
| Hay Park Spur E | 129.1E | 0.90 | C | C | C | O++ |
| Hay Park Spur F | 129.1F | 0.50 | C | C | C | O++ |
| Ryan | 129.1G | 1.43 | C | C | MT | O++ |
| Prebble Reservoir | 129.1H | 0.25 | C | C | MT | O++ |
| Eureka Reservoir #2 | 129.1I | 0.90 | C | C | MT | O++ |
| Easter Seal | 251 | 3.50 | O | O | O | O |
| Aspen Cove | 253 | 2.00 | O | O | O | O |
| Barnes | 254 | 1.10 | O | O | O | O |
| Silver Lake | 256 | 0.80 | O | C | O | O |
| Cottonwood Lakes | 257 | 5.30 | O | O | O | O |
| Cottonwood Lake No. 5 | 257.1B | 1.00 | O | O | O | O |
| Silver Lake Spur 1F | 257.1F | 0.40 | C | C | C | O++ |
| Silver Lake Spur 1G | 257.1G | 0.19 | C | C | C | O++ |
| Big Meadow | 258 | 2.20 | O | O | O | O |
| Neversweat Res. Parking | 258.1E | 0.10 | O | O | O | O |
| Lambert | 260 | 8.50 | O | O | O | O |
| Lambert Spur A | 260.1A | 0.55 | C | C | C | O++ |
| Lambert Spur B | 260.1B | 0.30 | C | C | C | O++ |
| Lambert Spur C | 260.1C | 0.70 | C | C | C | O++ |
| Lambert Spur D | 260.1D | 0.30 | C | C | C | O++ |
| Lambert Spur F | 260.1F | 0.35 | C | C | C | O++ |
| Park Creek | 262 | 7.90 | O | O | O | O |
| Buzzard Creek Campground | 265.2B | 0.20 | O | O | O | O |
| Coors Well #17 | 265.2E | 0.10 | C | C | C | O++ |
| Coors Well #16 | 265.2F | 0.10 | C | C | C | O++ |
| Logpile Flat | 267 | 1.50 | O | O | O | O |
| Logpile Flat Spur 0A | 267.0A | 0.34 | C | C | C | O++ |
| Owens Creek | 268 | 7.00 | O | O | O | O |
| Owens Creek Spur 1B | 268.1B | 2.64 | C | C | C | O++ |
| Owens Creek Spur 1C | 268.1C | 0.50 | C | C | C | O++ |
| Owens Creek Spur 1D | 268.1D | 1.18 | C | C | C | O++ |
| Owens Creek Spur 1E | 268.1E | 0.06 | C | C | C | O++ |
| Owens Creek Spur 1F | 268.1F | 0.77 | C | C | C | O++ |

| TABLE E-3. Low Standard System Roads with proposed changes in travel management | | | | | | |
|--|------------------------------|-----------------------|---------------|---------------|--------------|--------------|
| Road Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
| Owens Creek Spur 1G | 268.1G | 0.23 | C | C | C | O++ |
| Owens Creek Spur 1H | 268.1H | 0.13 | C | C | C | O++ |
| Owens Creek Spur 1I | 268.1I | 0.50 | C | C | C | O++ |
| Sunnyside | 274 | 1.30 | O | O | O | O |
| Kimball | 275 | 1.40 | O | O | O | O |
| Kimball Trail Access | 275.1A | 0.40 | O | O | O | O |
| Englehart | 276 | 2.16 | C | C | C | O++ |
| Englehart Spur 1A | 276.1A | 0.51 | C | C | C | O++ |
| Grove Creek | 279.1C | 1.40 | C | C | C | O++ |
| Grove Creek Spur 1D | 279.1D | 0.85 | C | C | C | O++ |
| Grove Creek Spur 1E | 279.1E | 0.16 | C | C | C | O++ |
| Grove Creek Spur 1F | 279.1F | 0.60 | C | C | C | O++ |
| Sheep Creek | 281 | 1.50 | O | O | O | O |
| Fruita Division | 400 | 5.50 | O | O | O | O |
| Hay Press Campground | 400.2A | 0.10 | O | O | O | O |
| Reservoir No. 2 | 400.2B | 0.30 | O | O | O | O |
| Reservoir No. 1 | 400.2C | 1.50 | O | O | O | O |
| Ridge | 400.2E | 0.50 | O | O | O | O |
| | TOTAL | 121.38 | | | | |
| | TOTAL OPEN | | 82.69 | 76.97 | 75.35 | 121.38 |
| | TOTAL CLOSED | | 38.69 | 43.91 | 42.95 | 0.00 |
| | TOTAL MOTORIZED TRAIL | | 0.00 | 0.50 | 3.08 | 0.00 |

O = OPEN to motorized and non-motorized traffic.

O++ = OPEN to motorized and non-motorized traffic after administrative/timber sale work completed.

C = CLOSED to motorized traffic, open to non-motorized traffic.

MT = MOTORIZED TRAIL, open to motorized trail vehicles and non-motorized traffic.

| Road Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
|---------------------------|------------|-----------------------|---------------|---------------|--------------|--------------|
| Chained Area | 100.2C | 2.00 | C | C | C | O++ |
| Coal Creek Basin | 101 | 1.30 | O | O | O | O |
| Sawmill | 104 | 1.50 | O | O | O | O |
| Anserson Reservoir Spur C | 105.1C | 0.36 | C | C | C | O++ |
| Anderson Reservoir No. 6 | 105.1D | 0.80 | C | C | C | O++ |
| Machett Cow Camp | 109.1B | 0.50 | O | O | O | O |
| Crane Lake | 109.1C | 1.00 | O | O | O | O |
| Flowing Park Overlook | 109.2H | 0.10 | C | C | C | O++ |
| Pipeline | 110 | 3.00 | O | O | O | O |
| Pipeline | 110 | 3.10 | O | C | C | O |
| Doughspoon | 112 | 8.80 | O | O | O | O |
| Delta Cabin | 112.2A | 2.00 | O | O | O | O |
| Point Cow Camp | 112.2B | 0.80 | O | C | O | O |
| Pitcairn | 112.2C | 0.50 | O | MT | O | O |
| Alkali | 113 | 2.00 | O | O | O | O |
| Atkinson Reservoir | 114 | 4.70 | O | C | O | O |
| Granby | 115 | 4.50 | O | O | O | O |
| Little Gem | 116.1C | 0.40 | O | O | O | O |
| Old Scales Lake | 119 | 1.00 | C | C | C | O++ |
| Atkinson Timber Sale | 121.4B | 0.60 | C | C | C | O++ |
| Sink Creek | 121.4C | 0.91 | C | C | C | O++ |
| Kennicott Slough | 122 | 3.00 | O | O | O | O |
| Forest Lake Rd. | 124 | 0.40 | O | C | C | O |
| Park Cabin | 125.1A | 0.30 | O | O | O | O |
| Leon Lake | 127 | 4.50 | O | O | O | O |
| Leon Lake | 127 | 8.00 | O | O | O | O |
| Colby Horsepark Reservoir | 127.2A | 0.50 | O | C | C | O |
| Patterson Reservoir | 128.1A | 0.50 | O | O | O | O |
| Shingle Decker | 128.1C | 0.20 | O | O | O | O |
| Ellington Creek | 128.1F | 2.90 | O | O | O | O |
| Gray Reservoir | 128.1H | 0.20 | O | O | O | O |
| Brockman Reservoir | 128.1J | 1.40 | O | O | O | O |
| Indian Point | 130 | 4.50 | C | C | C | O++ |
| Cedar Mesa | 132 | 1.30 | O | O | O | O |
| Mid-Griffith Lake | 249 | 0.90 | O | O | C | O |

| TABLE E-4. Primitive System Roads with proposed changes in travel management | | | | | | |
|---|------------|---------------------------|---------------|---------------|--------------|--------------|
| Road Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
| Long Slough | 254.1A | 5.00 | O | O | O | O |
| Twin Basin Reservoir | 254.1B | 1.50 | O | O | O | O |
| Forty Acre Lake Rd. | 256.1A | 0.40 | O | C | O | O |
| Cottonwood Lake No. 4 | 257.1E | 1.10 | O | C | O | O |
| Park View | 258.1A | 0.80 | O | C | C | O |
| Horse Mtn. | 258.1C | 3.10 | O | NM | MT | O |
| Webb Flats | 258.1D | 2.00 | O | O | O | O |
| Bureau Pipeline | 259 | 11.00 | O | MT | O | O |
| Cottonwood Cow Camp | 259.1A | 0.30 | O | C | MT | O |
| Hells Hole | 259.1B | 1.00 | C | C | C | O++ |
| Willow | 263 | 4.50 | O | O | O | O |
| Wagon Park | 263.1A | 1.50 | O | O | MT | O |
| Colorado Ute Powerline | 264 | 7.40 | C | MT | MT | MT |
| Powerline Spur A1 | 264.A1 | 0.50 | C | MT | MT | MT |
| Powerline Spur A2 | 264.A2 | 0.90 | C | MT | MT | MT |
| Powerline Spur A3 | 264.A3 | 1.70 | C | MT | MT | MT |
| Powerline Spur A5 | 264.A5 | 3.40 | C | MT | MT | MT |
| Lowell Flat | 265.2C | 3.05 | O | O | O | O |
| Buzzard Cow Camp | 265.2D | 0.70 | O | C | O | O |
| Porter Flat | 266 | 9.10 | O | O | O | O |
| Ditch Road | 266.2A | 0.40 | C | C | C | O++ |
| Harrison | 266.2B | 0.70 | C | C | C | O++ |
| Dry Owens Creek | 268.1A | 1.75 | O | O | MT | O |
| Road Gulch | 270.1A | 1.0 | O | MT | MT | O |
| Silt Spur B | 270.1B | 2.16 | O | O | O | O |
| Mudd Hill | 271 | 5.00 | O | O | O | O |
| Hawxhurst | 273 | 0.50 | C | C | C | O++ |
| The Burn | 277 | 5.00 | O | O | O | O |
| Sheep Flats | 279 | 4.60 | O | O | O | O |
| Labbe Res. | 279.13 | 3.10 | O | C | C | O |
| Hunter | 280 | 3.40 | O | O | O | O |
| South Sheep Creek | 281.1A | 1.90 | O | O | MT | O |
| Middle Sheep Creek | 281.1B | 2.00 | O | O | O | O |
| North Sheep Creek | 281.1C | 1.80 | O | O | O | O |
| Sheep Creek ridge | 281.1D | 1.10 | O | O | O | O |

| TABLE E-4. Primitive System Roads with proposed changes in travel management | | | | | | |
|---|--|---------------------------|---------------|---------------|--------------|--------------|
| Road Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
| North Lobe Creek | 399 | 1.00 | C | C | C | O++ |
| | TOTAL | 162.89 | | | | |
| | TOTAL OPEN | | 135.06 | 103.56 | 116.71 | 148.99 |
| | TOTAL CLOSED | | 27.83 | 29.77 | 22.67 | 0.00 |
| | TOTAL MOTORIZED TRAIL | | 0.00 | 26.46 | 23.51 | 13.90 |
| | TOTAL NON-MOTORIZED TRAIL | | 0.00 | 3.10 | 0.00 | 0.00 |

O = OPEN to motorized and non-motorized traffic.

O++ = OPEN to motorized and non-motorized traffic after administrative/timber sale work completed.

C = CLOSED to motorized traffic, open to non-motorized traffic.

MT = MOTORIZED TRAIL, open to motorized trail vehicles and non-motorized traffic.

NM = NON-MOTORIZED TRAIL, open only to non-motorized traffic.

Grand Mesa Travel Management Plan EA

| TABLE E-5. System Trails with proposed changes in travel management | | | | | | |
|--|------------|-----------------------|---------------|---------------|--------------|--------------|
| Trail Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
| Indian Point | 130 | 4.50 | NM | NM | NM | NM+ |
| West Bench | 501 | 7.00 | NM | NM | NM | NM+ |
| Lost Lake | 502 | 1.50 | HO | HO | HO | HO+ |
| Mesa Lakes Shore Trail | 503 | 1.50 | HO | HO | HO | HO |
| Lake-of-the-Woods | 506 | 5.90 | MT | NM | NM | NM+ |
| Bull Basin | 507 | 3.00 | MT | MT | MT | MT |
| Lily Lakes | 509 | 0.50 | MT | NM | NM | MT |
| Crum Reservoir | 511 | 3.40 | NM | MT | MT | MT |
| Salt Creek | 514 | 3.20 | MT | NM | NM | MT |
| High | 515 | 9.90 | MT | MT | MT | MT |
| Silver Spruce | 517 | 12.00 | MT | MT | MT | MT |
| Monument | 518 | 13.00 | MT | MT | MT | MT |
| Buzzard Park | 519 | 4.50 | MT | MT | MT | MT |
| Hells Hole | 526 | 3.00 | NM | NM | NM | NM+ |
| Battlement Trail | 527 | 19.30 | MT | MT | MT | MT |
| Bald Mountain | 528 | 3.00 | MT | MT | MT | MT |
| Brush Creek | 529 | 3.50 | MT | MT | MT | MT |
| Hawxhurst | 530 | 4.00 | MT | MT | MT | MT |
| Smalley Mountain | 531 | 4.00 | MT | MT | MT | MT |
| Kimball | 532 | 3.50 | MT | MT | MT | MT |
| Ridge | 646 | 4.50 | MT | MT | MT | MT |
| Black Pine | 647 | 2.70 | MT | MT | MT | MT |
| Little Delores | 648 | 1.80 | MT | MT | MT | MT |
| Whitewater Basin | 700 | 3.20 | NM | NM | NM | NM |
| Coal Creek | 702 | 9.00 | NM | NM | NM | NM |
| Coal Creek Basin | 703 | 4.80 | NM | NM | NM | NM |
| Switchback | 705 | 1.00 | NM | NM | NM | NM |
| Kannah Creek | 706 | 8.30 | NM | NM | NM | NM |
| Spring Camp | 707 | 7.10 | NM | NM | NM | NM |
| Blue Lake | 707.1A | 1.00 | NM | NM | NM | NM |
| Indian Point | 708 | 3.00 | NM | NM | NM | NM |
| Deep Creek | 709 | 1.10 | NM | NM | NM | NM+ |
| Current Creek | 710 | 4.00 | NM | NM | NM | NM |
| Crag Crest | 711 | 6.80 | HO | HO | HO | HO+ |
| Crag Crest Loop | 711 | 3.50 | NM | NM | NM | NM+ |

| Trail Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
|----------------------------|------------|-----------------------|---------------|---------------|--------------|--------------|
| Crag Crest Spur | 711.1A | 4.00 | HO | HO | HO | HO+ |
| Cottonwood | 712 | 2.60 | NM | NM | NM | NM+ |
| Cottonwood | 712 | 1.00 | NM | NM | NM | NM+ |
| Land Of Lakes | 713 | 0.50 | HO | HO | HO | HO+ |
| Twin Lake | 714 | 0.30 | MT | MT | MT | MT |
| Indian Point Stock Drive | 715 | 9.00 | NM | NM | NM | NM+ |
| Sissy | 716 | 0.30 | NM | NM | NM | NM+ |
| Leon Lake | 717 | 1.80 | NM | NM | NM | NM+ |
| Cedar Mesa | 718 | 3.50 | MT | MT | MT | MT |
| Green Mountain | 719 | 13.60 | MT | MT | MT | MT |
| Elk Park | 720 | 0.80 | NM | NM | NM | NM+ |
| Greenwood | 721 | 1.80 | MT | NM | MT | MT |
| Blue Grouse | 722 | 4.30 | MT | NM | NM | MT |
| Granby Pack Trail | 723 | 2.00 | NM | NM | NM | NM+ |
| Bull and Brown | 724 | 2.00 | MT | MT | MT | MT |
| Bull and Brown 1A | 724.1A | 2.00 | MT | MT | NM | MT |
| Bull and Brown 1B | 724.1B | 1.80 | MT | NM | MT | MT |
| Point Camp | 725 | 3.00 | MT | NM | MO | MO+ |
| Drop Off | 726 | 2.20 | MT | NM | MO | MO+ |
| Farmers | 727 | 1.40 | NM | NM | NM | NM+ |
| Carson Lake | 728 | 1.00 | NM | NM | NM | NM+ |
| Deep Slough | 729 | 1.50 | NM | NM | NM | NM+ |
| East Leon (GJ Dist) | 730 | 2.60 | MT | MT | MT | MT |
| East Leon (COL Dist) | 730 | 5.00 | MT | MT | MT | MT |
| Last Chance | 731 | 3.00 | MT | MT | MT | MT |
| Ella | 732 | 2.00 | MT | MT | MT | MT |
| Columbine | 733 | 2.00 | MT | MT | MT | MT |
| Ward Lake | 744 | 0.70 | HO | HO | HO | HO+ |
| Grand Mesa Discovery Trail | 745 | 0.30 | HO | HO | HO | HO |
| Carp To Ward | 746 | 0.30 | HO | HO | HO | HO |
| Twilight Spur | 746 | 0.10 | HO | HO | HO | HO |
| Carp Lake | 747 | 0.20 | HO | HO | HO | HO |
| Island Lake | 748 | 1.50 | HO | HO | HO | HO |
| Crag To Carp | 749 | 1.10 | HO | HO | HO | HO |
| Cache Creek | 903 | 1.40 | MT | MT | NM | MT |

| TABLE E-5. System Trails with proposed changes in travel management | | | | | | |
|--|----------------------------|-----------------------|---------------|---------------|--------------|--------------|
| Trail Name | No. | Length (miles) | Alt. 1 | Alt. 2 | Alt.3 | Alt.4 |
| Battlement Trail | 527 | 1.00 | MT | MT | NM | MT |
| Elk Park | 720 | 2.40 | MT | MT | MT | MT |
| | TOTAL | 252.00 | | | | |
| | TOTAL MOTORIZED | | 159.20 | 132.90 | 132.10 | 150.40 |
| | TOTAL NON-MOTORIZED | | 78.30 | 104.60 | 100.20 | 81.90 |
| | TOTAL HIKER ONLY | | 18.50 | 18.50 | 18.50 | 18.50 |
| | TOTAL MOTORCYCLE | | 0.00 | 0.00 | 5.20 | 5.20 |

MT = MOTORIZED TRAIL, open to motorized trail vehicles and non-motorized traffic.

NM = NON-MOTORIZED TRAIL, open only to non-motorized traffic.

NM+ = NON-MOTORIZED TRAIL, more suited to non-motorized traffic but motorized trail vehicles not prohibited.

HO = HIKER ONLY, open only to foot traffic.

HO+ = HIKER, more suited to foot traffic but motorized trail vehicles not prohibited.

MO = MOTORCYCLE TRAIL, open to motorcycles and non-motorized traffic.

MO+ = MOTORCYCLE TRAIL, more suited to motorcycles and non-motorized traffic but ATVs not prohibited.

**Appendix F -
Access to Lake/Reservoir Fisheries
by Alternative**

ALTERNATIVE 1

Fisheries currently occurring in areas closed to all motorized travel.

- | | | |
|-------------------------|--|----------------------------------|
| 1. Blue Lake | Kannah Creek Unit* | 7.7 miles access |
| | *Units names from the CDOW publication | |
| | <u>Fishing the Grand Mesa</u> | |
| 2. Butts Lake | Crag Crest Trail Unit | 1.3 miles access |
| 3. Forrest Lake* | | 0.8* in a closed area but has an |
| | also known as Upper Hotel Lake | open road (good) access |
| 4. Upper Eggleston Lake | | 0.4 miles access |

Fisheries currently occurring in areas open to all modes of travel but foot and horse recommended due to terrain.

- | | | |
|----------------------------|---------------------------|------------------------|
| 5. Cole Reservoir #1 | Weir & Johnson Unit | 0.7 mile access |
| 6. Finney Cut Lake #1 | | 1.0 mile access |
| 7. Finney Cut Lake #2 | | 1.5 mile access |
| 8. Leon Peak Reservoir | | 0.5 mile access |
| | also known as Sissie Lake | |
| 9. The Pecks Reservoir #1 | | 0.8 mile access |
| 10. The Pecks Reservoir #2 | | 0.8 mile access |
| 11. Sheep Slough Reservoir | Ward Lake Unit | 0.2 to 0.4 mile access |
| 12. Elk Park Reservoir | Trickle Park Unit | 0.4 miles access |
| 13. Knox Reservoir | | 1.0 mile access |
| 14. Trout Lake | | 1.5 miles access |
| 15. South Mesa Lake | Mesa Lakes Unit | 0.5 miles access |
| 16. Lost Lake | | 1.0 mile access |
| 17. Lily Lake | Cottonwood Unit | 0.6 mile access |
| 18. Kenney Creek Lake | Leon Unit | 0.3 mile access |
| | also known as Lost Lake | |
| 19. Clear Lake | The Granby's Unit | 0.8 mile access |

Fisheries currently open to motorized access with four-wheel drive recommended.

- | | | |
|----------------------------------|-------------------|------------------|
| 20. Big Battlement Lake | The Granby's Unit | 4.0 mile access |
| 21. Little Battlement lake | | 4.3 miles access |
| 22. Granby Reservoir #1 | | 1.8 miles access |
| 23. Granby Reservoir #2 | | 3.5 miles access |
| 24. Granby Reservoirs #4,5,10,11 | | 3.0 miles access |
| 25. Granby Reservoir #7 | | 3.7 miles access |
| 26. Granby Reservoir #12 | | 2.0 miles access |
| 27. Deep Slough Reservoir | Ward Lake Unit | 0.3 miles access |

Grand Mesa Travel Management Plan EA

| | | |
|-----------------------------|------------------------------------|-------------------|
| 28. Doughspoon Reservoir #1 | Doughspoons Unit | 16.7 miles access |
| 29. Doughspoon Reservoir #2 | | 16.0 miles access |
| 30. Dugger Reservoir | | 15.8 miles access |
| 31. Morris Reservoir | | 15.8 miles access |
| 32. Porter Reservoir #1 | | 16.0 miles access |
| | also known as Big Davies Reservoir | |
| 33. Porter Reservoir #4 | | 16.5 miles access |
| | also known as Little Davies | |
| 34. Rim Rock Lake | Island Lake Unit | 1.0 mile access |
| 35. Rock Lake | Leon Creek Unit | 5.7 miles access |
| 36. Youngs Lake | | 6.2 miles access |
| 37. Griffith Lake #1 | Bull Basin Unit | 0.5 mile access |
| 38. Middle Griffith Lake | | 1.1 miles access |

Fisheries currently open to all modes of motorized travel with no special recommendations.

| | | |
|-------------------------------|-------------------------|---------------------------|
| 39. Jumbo Reservoir | Mesa Lakes Units | paved access |
| 40. Beaver Lake | | paved access |
| 41. Glacier Springs Lake | | paved access |
| 42. Mesa Lake | | paved access |
| 43. Sunset Lake | | paved access |
| 44. Waterdog Reservoir | | 0.5 mile access |
| 45. Carson Lake | Kannah Creek Unit | 1.4 miles access |
| 46. Island lake | Island Lake Unit | paved access |
| 47. Little Gem Reservoir | | 1.0 mile access |
| 48. Cabbot Lake | Ward Lake Unit | paved access |
| | also known as Carp Lake | |
| 49. Ward Lake | | paved access |
| 50. Alexander Lake | | paved access |
| 51. Hotel Twin Lake | | paved and improved access |
| 52. Baron Lake | | paved access |
| 53. Ward Creek Reservoir | | paved access |
| 54. Eggleston Lake | Eggleston Lake Unit | paved access |
| 55. Reed Reservoir | | 0.7 mile access |
| 56. Kiser Slough Reservoir | | 1.2 mile access |
| 57. Youngs Creek Reservoir #3 | | gravel access |
| 58. Youngs Creek Reservoir #2 | | 0.8 mile access |
| 59. Youngs Creek Reservoir #1 | | gravel access |
| 60. Pedro Reservoir | | 0.2 mile access |
| 61. Kiser Reservoir | | gravel access |
| 62. Little Grouse Reservoir | | 0.8 mile access |
| 63. Stell Lake | | 1.5 mile access |
| 64. Military Park Reservoir | Trickle Park Unit | 0.1 mile access |

Appendix F

| | | |
|--------------------------------|-----------------------|-------------------|
| 65. East Stell Lake | | 1.1 mile access |
| 66. Park Reservoir | | 0.5 mile access |
| 67. Vela Reservoir | | paved access |
| 68. Bonita Reservoir | Bonita Reservoir Unit | 1.4 mile access |
| 69. Cedar Mesa Reservoir | | 1.3 mile access |
| 70. Trio Reservoir | | 2.5 mile access |
| 71. Twin Lake #1 | Weir & Johnson unit | 0.3 mile access |
| 72. Twin Lake #2 | | 0.6 mile access |
| 73. Sackett Reservoir | | gravel access |
| 74. Weir and Johnson Reservoir | | gravel access |
| 75. Bonham Reservoir | Bonham Unit | gravel access |
| 76. Big Creek Reservoir #1 | | 0.3 mile access |
| 77. Atkinson Reservoir | | 0.6 mile access |
| 78. Silver Lake | Cottonwood Unit | 0.3 mile access |
| 79. Forty-Acre Lake | | 0.8 mile access |
| 80. Neversweat Reservoir | | improved access |
| 81. Kitson Reservoir | | improved access |
| 82. Cottonwood Reservoir #4 | | 0.3 mile access |
| 83. Cottonwood Reservoir #1 | | improved access |
| 84. DeCamp Reservoir | | 0.9 mile access |
| 85. Big Meadows Reservoir | | improved access |
| 86. Cottonwood Reservoir #5 | | 0.9 mile access |
| 87. Monument Reservoir #1 | Leon Creek Unit | 3.0 miles access |
| 88. Marcott Park Reservoir | Surface Creek Unit | 3.2 miles access |
| 89. Y&S Reservoir | | 4.5 miles access |
| 90. Colby Horse Park Reservoir | Leon Creek Unit | 11.8 miles access |
| 91. Kenney Creek Reservoir | | 8.9 miles access |
| 92. Leon Lake | | 11.8 miles access |
| 93. Lanning Lake | | 11.8 miles access |
| 94. Hunter Reservoir | | 12.3 miles access |

Fisheries currently open to motorized access in areas highly susceptible to user impacts due to high soil moisture conditions.

| | | |
|-----------------------------|-----------------|------------------|
| 95. Bull Creek Reservoir #2 | Bull Basin Unit | 2.7 miles access |
| 96. Bull Creek Reservoir #1 | | 2.8 miles access |
| 97. Bull Creek Reservoir #5 | | 5.2 miles access |

Historic fisheries currently occurring in areas with travel routes designated.*

| | | |
|--------------------------|-------------------|------------------|
| 98. Doughty Reservoir | Leroux Creek Unit | 1.0 mile access |
| 99. Dogfish Reservoir | | 3.0 miles access |
| 100 Goodenough Reservoir | | 3.0 miles access |
| 101 Hanson Reservoir | | 0.5 mile access |

Grand Mesa Travel Management Plan EA

*These reservoirs are not currently scheduled to be stocked by the Colorado State Division of Wildlife.

ALTERNATIVE 2

Fisheries currently occurring in areas closed to all motorized travel which would stay the same under Alternative 2.

- | | | |
|-------------------------|--------------------------------|----------------------------------|
| 1. Blue Lake | Kannah Creek Unit | 7.7 miles access |
| 2. Butts Lake | Crag Crest Trail Unit | 1.3 miles access |
| 3. Forrest Lake* | | 0.8* in a closed area but has an |
| | also known as Upper Hotel Lake | open road (good) access |
| 4. Upper Eggleston Lake | | 0.4 miles access |

Fisheries currently occurring in areas open to all modes of travel but foot and horse travel recommended due to terrain, which would change to non-motorized access.

- | | | |
|---------------------|-------------------|------------------|
| 15. South Mesa Lake | Mesa Lakes Unit | 0.5 miles access |
| 16. Lost Lake | | 1.0 mile access |
| 17. Lily Lake | Cottonwood Unit | 0.6 mile access |
| 19. Clear Lake | The Granby's Unit | 0.8 mile access |

Fisheries currently occurring in areas open to all modes of travel but foot and horse travel recommended due to terrain, which would stay the same under Alternative 2.

- | | | |
|----------------------------|---------------------------|------------------------|
| 5. Cole Reservoir #1 | Weir & Johnson Unit | 0.7 mile access |
| 6. Finney Cut Lake #1 | | 1.0 mile access |
| 7. Finney Cut Lake #2 | | 1.5 mile access |
| 8. Leon Peak Reservoir | | 0.5 mile access |
| | also known as Sissie Lake | |
| 9. The Pecks Reservoir #1 | | 0.8 mile access |
| 10. The Pecks Reservoir #2 | | 0.8 mile access |
| 11. Sheep Slough Reservoir | Ward Lake Unit | 0.2 to 0.4 mile access |
| 12. Elk Park Reservoir | Trickle Park Unit | 0.4 miles access |
| 13. Knox Reservoir | | 1.0 mile access |
| 14. Trout Lake | | 1.5 miles access |
| 18. Kenney Creek Lake | Leon Unit | 0.3 mile becomes |
| | also known as Lost Lake | foot access |

Grand Mesa Travel Management Plan EA

Fisheries currently open to motorized access with four-wheel drive recommended, which would remain motorized access with travel on roads and trails only. A single route will be designated to each reservoir or parking area.

| | | |
|----------------------------------|--|----------------------|
| 20. Big Battlement Lake | The Granby's Unit | 4.0 mile access |
| 21. Little Battlement lake | | 4.3 miles access |
| 22. Granby Reservoir #1 | | 1.8 miles access |
| 23. Granby Reservoir #2 | | 3.5 miles access |
| 24. Granby Reservoirs #4,5,10,11 | | 3.0 miles access |
| | Granby Reservoirs #10 & #11 would remain accessible by motorized vehicles. | |
| | Granby Reservoir #4 | 0.5 mile foot access |
| | Granby Reservoir #5 | 0.2 mile foot access |
| 25. Granby Reservoir #7 | | 0.2 mile foot access |
| 26. Granby Reservoir #12 | | 2.0 miles access |
| 27. Deep Slough Reservoir | Ward Lake Unit | 0.3 miles access |
| 28. Doughspoon Reservoir #1 | Doughspoons Unit | 16.7 miles access |
| 29. Doughspoon Reservoir #2 | | 16.0 miles access |
| 30. Dugger Reservoir | | 15.8 miles access |
| 31. Morris Reservoir | | 0.2 mile foot access |
| 32. Porter Reservoir #1 | | 16.0 miles access |
| | also known as Big Davies Reservoir | |
| 33. Porter Reservoir #4 | | 16.5 miles access |
| | also known as Little Davies | |
| 34. Rim Rock Lake | Island Lake Unit | 1.0 mile access |
| 35. Rock Lake | Leon Creek Unit | 5.7 miles access |
| 36. Youngs Lake | | 6.2 miles access |
| 37. Griffith Lake #1 | Bull Basin Unit | 0.1 mile foot access |
| 38. Middle Griffith Lake | | 0.5 mile foot access |

Fisheries currently open to all modes of motorized travel with no special recommendations, which would remain motorized accessible on designated road and trail only.

| | | |
|--------------------------|-------------------------|----------------------|
| 39. Jumbo Reservoir | Mesa Lakes Units | paved access |
| 40. Beaver Lake | | paved access |
| 41. Glacier Springs Lake | | paved access |
| 42. Mesa Lake | | paved access |
| 43. Sunset Lake | | paved access |
| 44. Waterdog Reservoir | | 0.5 mile access |
| 45. Carson Lake | Kannah Creek Unit | 1.4 miles access |
| 46. Island lake | Island Lake Unit | paved access |
| 47. Little Gem Reservoir | | 0.2 mile foot access |
| 48. Cabbot Lake | Ward Lake Unit | paved access |
| | also known as Carp Lake | |

Appendix F

| | | |
|--------------------------------|---|---------------------------|
| 49. Ward Lake | | paved access |
| 50. Alexander Lake | | paved access |
| 51. Hotel Twin Lake | | paved and improved access |
| 52. Baron Lake | | paved access |
| 53. Ward Creek Reservoir | | paved access |
| 64. Military Park Reservoir | Trickle Park Unit | 0.1 mile access |
| 65. East Stell Lake | | 1.1 miles foot access |
| 66. Park Reservoir | | 0.5 mile access |
| 67. Vela Reservoir | | paved access |
| 71. Twin Lake #1 | Weir & Johnson unit | 0.3 mile access |
| 72. Twin Lake #2 | | 0.4-0.6 mile foot access |
| 73. Sackett Reservoir | | gravel access |
| 74. Weir and Johnson Reservoir | | gravel access |
| 75. Bonham Reservoir | Bonham Unit | gravel access |
| 76. Big Creek Reservoir #1 | | 0.3 mile access |
| 77. Atkinson Reservoir | | 0.6 mile access |
| 78. Silver Lake | Cottonwood Unit | 0.3 mile access |
| 79. Forty-Acre Lake | | 0.8 mile access |
| 80. Neversweat Reservoir | | improved access |
| 81. Kitson Reservoir | | improved access |
| 82. Cottonwood Reservoir #4 | | 0.3 mile access |
| 83. Cottonwood Reservoir #1 | | improved access |
| 84. DeCamp Reservoir | | 0.9 mile access |
| 85. Big Meadows Reservoir | | improved access |
| 86. Cottonwood Reservoir #5 | | 0.9 mile access |
| 87. Monument Reservoir #1 | Leon Creek Unit | 3.0 miles access |
| 88. Marcott Park Reservoir | Surface Creek Unit | 3.2 miles access |
| | Travel on designated routes east of Marcott Reservoir, west of reservoir remain open to all travel modes. | |
| 89. Y&S Reservoir | | 4.5 miles access |
| 90. Colby Horse Park Reservoir | Leon Creek Unit | 11.8 miles access |
| 91. Kenney Creek Reservoir | | 8.9 miles access |
| 92. Leon Lake | | 11.8 miles access |
| 93. Lanning Lake | | 11.8 miles access |
| 94. Hunter Reservoir | | 12.3 miles access |

Current fisheries which would remain open to all modes of motorized access.

| | | |
|-------------------------------|---------------------|-----------------|
| 54. Eggleston Lake | Eggleston Lake Unit | paved access |
| 55. Reed Reservoir | | 0.7 mile access |
| 56. Kiser Slough Reservoir | | 1.2 mile access |
| 57. Youngs Creek Reservoir #3 | | gravel access |
| 58. Youngs Creek Reservoir #2 | | 0.8 mile access |
| 59. Youngs Creek Reservoir #1 | | gravel access |

Grand Mesa Travel Management Plan EA

| | | |
|-----------------------------|-----------------------|-----------------|
| 60. Pedro Reservoir | | 0.2 mile access |
| 61. Kiser Reservoir | | gravel access |
| 62. Little Grouse Reservoir | | 0.8 mile access |
| 63. Stell Lake | | 1.5 mile access |
| 68. Bonita Reservoir | Bonita Reservoir Unit | 1.4 mile access |
| 69. Cedar Mesa Reservoir | | 1.3 mile access |
| 70. Trio Reservoir | | 2.5 mile access |

Fisheries currently open to motorized access in areas highly susceptible to user impacts due to high soil moisture conditions which would remain accessible by motorized trail.

| | | |
|-----------------------------|-----------------|------------------|
| 95. Bull Creek Reservoir #2 | Bull Basin Unit | 2.7 miles access |
| 96. Bull Creek Reservoir #1 | | 2.8 miles access |
| 97. Bull Creek Reservoir #5 | | 5.2 miles access |

Historic fisheries currently occurring in areas with travel routes designated* which would remain as is under Alternative 2.

| | | |
|--------------------------|-------------------|------------------|
| 98. Doughty Reservoir | Leroux Creek Unit | 1.0 mile access |
| 99. Dogfish Reservoir | | 3.0 miles access |
| 100 Goodenough Reservoir | | 3.0 miles access |
| 101 Hanson Reservoir | Leroux Creek Unit | 0.5 mile access |

*These reservoirs are not currently scheduled to be stocked by the Colorado State Division of Wildlife.

ALTERNATIVE 3

Fisheries currently occurring in areas closed to all motorized travel which would stay the same under Alternative 3.

| | | |
|-------------------------|--------------------------------|---|
| 1. Blue Lake | Kannah Creek Unit | 7.7 miles access |
| 2. Butts Lake | Crag Crest Trail Unit | 1.3 miles access |
| 3. Forrest Lake* | | 0.8* in a closed area but has an open road (good) access. |
| | also known as Upper Hotel Lake | |
| 4. Upper Eggleston Lake | | 0.4 miles access |

Fisheries currently occurring in areas open to all modes of travel but foot and horse travel recommended due to terrain, which would become non-motorized access.

| | | |
|------------------------|---------------------|-----------------|
| 5. Cole Reservoir #1 | Weir & Johnson Unit | 0.7 mile access |
| 6. Finney Cut Lake #1 | | 1.0 mile access |
| 7. Finney Cut Lake #2 | | 1.5 mile access |
| 8. Leon Peak Reservoir | | 0.5 mile access |

Appendix F

- also known as Sissie Lake
- 9. The Pecks Reservoir #1 0.8 mile access
 - 10. The Pecks Reservoir #2 0.8 mile access
 - 11. Sheep Slough Reservoir Ward Lake Unit 0.2 to 0.4 mile access
 - 12. Elk Park Reservoir Trickle Park Unit 0.4 miles access
 - 13. Knox Reservoir 1.0 mile access
 - 14. Trout Lake 1.5 miles access
 - 15. South Mesa Lake Mesa Lakes Unit 0.5 miles access
 - 16. Lost Lake 1.0 mile access
 - 17. Lily Lake Cottonwood Unit 0.6 mile access
 - 18. Kenney Creek Lake Leon Unit 0.3 mile access
also known as Lost Lake
 - 19. Clear Lake The Granby's Unit 0.8 mile access

Fisheries currently open to motorized access with four-wheel drive recommended, which would retain motorized access. A single route will be designated to each reservoir or parking area.

- 20. Big Battlement Lake The Granby's Unit 4.0 mile access road #115
 - 21. Little Battlement lake 4.3 miles access road #115
 - 22. Granby Reservoir #1 Granby's Unit 0.4 mile access off of road #115
 - 23. Granby Reservoir #2 0.5 mile access off of road #115
 - 24. Granby Reservoirs #10,11 3.0 miles access road #115
Granby Reservoirs #4,5 0.5 and 0.2 mile access respectfully off of road #115
 - 25. Granby Reservoir #7 0.2 mile access off of road #115
 - 26. Granby Reservoir #12 2.0 miles access road #115
 - 27. Deep Slough Reservoir Ward Lake Unit 0.3 mile access off of Highway 65
 - 28. Doughspoon Reservoir #1 Doughspoons Unit 0.9 mile access off of road #112
 - 29. Doughspoon Reservoir #2 0.2 mile access off of road #112
 - 30. Dugger Reservoir 15.8 miles access road #112
 - 31. Morris Reservoir 0.2 mile access off of road #112.2B
 - 32. Porter Reservoir #1 16.0 miles access road #112.2B
also known as Big Davies Reservoir
 - 33. Porter Reservoir #4 16.5 miles access road #112.2B
and trailhead #726
- also known as Little Davies

Grand Mesa Travel Management Plan EA

| | | |
|-----------------------------|-------------------|--------------------------------------|
| 35. Rock Lake | Leon Creek Unit | 5.7 miles access road #279 |
| 36. Youngs Lake | | 6.2 miles access road #279 |
| 47. Little Gem Reservoir | Island Lake Unit | 0.2 mile access off of road #116 |
| 64. Military Park Reservoir | Trickle Park Unit | 0.1-0.3 mile access off of road #121 |
| 77. Atkinson Reservoir | Bonham Unit | 0.6 mile access off of road #121 |
| 84. DeCamp Reservoir | Cottonwood Unit | 0.3 mile access off of road #259 |

Fisheries currently open to motorized access with four-wheel drive recommended which would become non-motorized access.

| | | |
|--------------------------|------------------|----------------------------------|
| 34. Rim Rock Lake | Island Lake Unit | 0.5 mile access off of road #115 |
| 37. Griffith Lake #1 | Bull Basin Unit | 0.1 mile foot access off SH #65 |
| 38. Middle Griffith Lake | | 0.6 mile access off of SH #65 |

Fisheries currently open to all modes of motorized travel with no special recommendations which would retain motorized access on designated routes.

| | | |
|-------------------------------|-------------------------|---------------------------------------|
| 39. Jumbo Reservoir | Mesa Lakes Units | Highway 65 |
| 40. Beaver Lake | | paved access |
| 41. Glacier Springs Lake | | paved access |
| 42. Mesa Lake | | paved access |
| 43. Sunset Lake | | paved access |
| 44. Waterdog Reservoir | | 0.5 mile access road #254.1A |
| 45. Carson Lake | Kannah Creek Unit | 1.4 miles access road #108 |
| 46. Island lake | Island Lake Unit | improved access road #116 |
| 48. Cabbot Lake | Ward Lake Unit | paved access road #121 and trail #747 |
| | also known as Carp Lake | |
| 49. Ward Lake | | paved access road #121 and trail #744 |
| 50. Alexander Lake | | paved access road #121 |
| 51. Hotel Twin Lake | | paved and improved access road #121 |
| 52. Baron Lake | | paved access road #121 |
| 53. Ward Creek Reservoir | | paved access Highway 65 |
| 54. Eggleston Lake | Eggleston Lake Unit | improved access road #121 |
| 55. Reed Reservoir | | 0.7 mile access road #123 |
| 56. Kiser Slough Reservoir | | 1.2 mile access trail #124 |
| 57. Youngs Creek Reservoir #3 | | improved access road #121 |

Appendix F

| | | |
|--------------------------------|-----------------------|---|
| 58. Youngs Creek Reservoir #2 | | 0.8 mile access trail #124 |
| 59. Youngs Creek Reservoir #1 | | improved access trail #124 |
| 61. Kiser Reservoir | | improved access trail #124 |
| 66. Park Reservoir | | 0.5 mile access road #125 |
| 67. Vela Reservoir | | improved access road #121 |
| 68. Bonita Reservoir | Bonita Reservoir Unit | 1.4 mile access road #132 |
| 69. Cedar Mesa Reservoir | | 1.3 mile access road #132 |
| 70. Trio Reservoir | | 2.5 mile access trial #718 |
| 71. Twin Lake #1 | Weir & Johnson unit | 0.3 mile access road #126 |
| 73. Sackett Reservoir | | gravel access road #126.1B |
| 74. Weir and Johnson Reservoir | | gravel access road #126.1B and trailhead #717 |
| 75. Bonham Reservoir | Bonham Unit | gravel access roads #257,259,257.1C |
| 76. Big Creek Reservoir #1 | | 0.3 mile access roads #121,121.1A |
| 78. Silver Lake | Cottonwood Unit | 0.3 mile access road #257.1B |
| 79. Forty-Acre Lake | | 0.8 mile access end road #257.1B |
| 80. Neversweat Reservoir | | improved access road #258 |
| 81. Kitson Reservoir | | improved access road #257 |
| 82. Cottonwood Reservoir #4 | | 0.3 mile access road #257.1E |
| 83. Cottonwood Reservoir #1 | | improved access road #257 and foot trailhead #506 |
| 85. Big Meadows Reservoir | | improved access road #258 |
| 86. Cottonwood Reservoir #5 | | 0.9 mile access road #258.1B |
| 87. Monument Reservoir #1 | Leon Creek Unit | 3.0 miles access road #518 |
| 88. Marcott Park Reservoir | Surface Creek Unit | 3.2 miles access road #127 and trial #731 |
| 89. Y&S Reservoir | | 4.5 miles access road #127 |
| 90. Colby Horse Park Reservoir | Leon Creek Unit | 11.8 miles access road #127 |
| 91. Kenney Creek Reservoir | | 8.9 miles access road #260 |
| 92. Leon Lake | | 11.8 miles access road #127 |
| 93. Lanning Lake | | 11.8 miles access road #127 |
| 94. Hunter Reservoir | | 12.3 miles access road #280 |

Fisheries currently open to all modes of motorized travel with no special recommendations which become non-motorized access.

Grand Mesa Travel Management Plan EA

| | | |
|-----------------------------|---------------------|--|
| 60. Pedro Reservoir | Eggleston Unit | 0.2 mile access off of trail #124 |
| 62. Little Grouse Reservoir | | 0.2-0.8 mile access off of trail #124 or 719 |
| 63. Stell Lake | | 1.5 mile access off of road #121 |
| 65. East Stell Lake | Trickle Park Unit | 1.1 mile access off of road #121 |
| 72. Twin Lake #2 | Weir & Johnson Unit | 0.4-0.6 mile access off of #126 |

Fisheries currently open to motorized access in areas highly susceptible to user impacts due to high soil moisture conditions which would retain motorized access on designated routes.

| | | |
|-----------------------------|-----------------|-------------------------------|
| 95. Bull Creek Reservoir #2 | Bull Basin Unit | 2.7 miles access trail #506 |
| 97. Bull Creek Reservoir #5 | | 5.2 miles access road #254.1A |

Fisheries currently open to motorized access in areas highly susceptible to user impacts due to high soil moisture conditions which would become non-motorized access.

| | | |
|-----------------------------|--|-----------------------------|
| 96. Bull Creek Reservoir #1 | | 2.8 miles access trail #506 |
|-----------------------------|--|-----------------------------|

Historic fisheries currently occurring in areas with travel routes designated* which would stay as is.

| | | |
|--------------------------|-------------------|---|
| 98. Doughty Reservoir | Leroux Creek Unit | 1.0 mile access road #121 Leroux Creek |
| 99. Dogfish Reservoir | | 3.0 miles access road #128 |
| 100 Goodenough Reservoir | | 3.0 miles access road #128 |
| 101 Hanson Reservoir | | 0.5 mile access |

*These reservoirs are not currently scheduled to be stocked by the Colorado State Division of Wildlife.

ALTERNATIVE 4

One fishery would remain closed to motorized access.

Fisheries currently occurring in areas closed to all motorized travel which would stay the same under Alternative 4.

| | | |
|--------------|-------------------|------------------|
| 1. Blue Lake | Kannah Creek Unit | 7.7 miles access |
|--------------|-------------------|------------------|

Appendix F

Fisheries currently occurring in areas open to all modes of travel but foot and horse travel recommended due to terrain would remain open to all modes of travel.

- | | | | |
|-----|---------------------------|---------------------|------------------------|
| 5. | Cole Reservoir #1 | Weir & Johnson Unit | 0.7 mile access |
| 6. | Finney Cut Lake #1 | | 1.0 mile access |
| 7. | Finney Cut Lake #2 | | 1.5 mile access |
| 8. | Leon Peak Reservoir | | 0.5 mile access |
| | also known as Sissie Lake | | |
| 9. | The Pecks Reservoir #1 | | 0.8 mile access |
| 10. | The Pecks Reservoir #2 | | 0.8 mile access |
| 11. | Sheep Slough Reservoir | Ward Lake Unit | 0.2 to 0.4 mile access |
| 12. | Elk Park Reservoir | Trickle Park Unit | 0.4 miles access |
| 13. | Knox Reservoir | | 1.0 mile access |
| 14. | Trout Lake | | 1.5 miles access |
| 15. | South Mesa Lake | Mesa Lakes Unit | 0.5 miles access |
| 16. | Lost Lake | | 1.0 mile access |
| 17. | Lily Lake | Cottonwood Unit | 0.6 mile access |
| 18. | Kenney Creek Lake | Leon Unit | 0.3 mile access |
| | also known as Lost Lake | | |
| 19. | Clear Lake | The Granby's Unit | 0.8 mile access |

Fisheries currently open to motorized access with four-wheel drive recommended which would remain open to motorized access.

- | | | | |
|-----|------------------------------------|-------------------|-------------------|
| 20. | Big Battlement Lake | The Granby's Unit | 4.0 mile access |
| 21. | Little Battlement lake | | 4.3 miles access |
| 22. | Granby Reservoir #1 | | 1.8 miles access |
| 23. | Granby Reservoir #2 | | 3.5 miles access |
| 24. | Granby Reservoirs #4,5,10,11 | | 3.0 miles access |
| 25. | Granby Reservoir #7 | | 3.7 miles access |
| 26. | Granby Reservoir #12 | | 2.0 miles access |
| 27. | Deep Slough Reservoir | Ward Lake Unit | 0.3 miles access |
| 28. | Doughspoon Reservoir #1 | Doughspoons Unit | 16.7 miles access |
| 29. | Doughspoon Reservoir #2 | | 16.0 miles access |
| 30. | Dugger Reservoir | | 15.8 miles access |
| 31. | Morris Reservoir | | 15.8 miles access |
| 32. | Porter Reservoir #1 | | 16.0 miles access |
| | also known as Big Davies Reservoir | | |
| 33. | Porter Reservoir #4 | | 16.5 miles access |
| | also known as Little Davies | | |
| 34. | Rim Rock Lake | Island Lake Unit | 1.0 mile access |
| 35. | Rock Lake | Leon Creek Unit | 5.7 miles access |

Grand Mesa Travel Management Plan EA

- 36. Youngs Lake 6.2 miles access
- 37. Griffith Lake #1 Bull Basin Unit 0.5 mile access
- 38. Middle Griffith Lake 1.1 miles access

Fisheries currently open to all modes of motorized travel with no special recommendations which would remain open to motorized access.

- 39. Jumbo Reservoir Mesa Lakes Units paved access
- 40. Beaver Lake paved access
- 41. Glacier Springs Lake paved access
- 42. Mesa Lake paved access
- 43. Sunset Lake paved access
- 44. Waterdog Reservoir 0.5 mile access

- 45. Carson Lake Kannah Creek Unit 1.4 miles access

- 46. Island lake Island Lake Unit paved access
- 47. Little Gem Reservoir 1.0 mile access

- 48. Cabbot Lake Ward Lake Unit paved access
also known as Carp Lake
- 49. Ward Lake paved access
- 50. Alexander Lake paved access
- 51. Hotel Twin Lake paved and improved access
- 52. Baron Lake paved access
- 53. Ward Creek Reservoir paved access

- 54. Eggleston Lake Eggleston Lake Unit paved access
- 55. Reed Reservoir 0.7 mile access
- 56. Kiser Slough Reservoir 1.2 mile access
- 57. Youngs Creek Reservoir #3 gravel access
- 58. Youngs Creek Reservoir #2 0.8 mile access
- 59. Youngs Creek Reservoir #1 gravel access
- 60. Pedro Reservoir 0.2 mile access
- 61. Kiser Reservoir gravel access
- 62. Little Grouse Reservoir 0.8 mile access
- 63. Stell Lake 1.5 mile access

- 64. Military Park Reservoir Trickle Park Unit 0.1 mile access
- 65. East Stell Lake 1.1 mile access
- 66. Park Reservoir 0.5 mile access
- 67. Vela Reservoir paved access

- 68. Bonita Reservoir Bonita Reservoir Unit 1.4 mile access
- 69. Cedar Mesa Reservoir 1.3 mile access
- 70. Trio Reservoir 2.5 mile access

- 71. Twin Lake #1 Weir & Johnson unit 0.3 mile access
- 72. Twin Lake #2 0.6 mile access
- 73. Sackett Reservoir gravel access
- 74. Weir and Johnson Reservoir gravel access

Appendix F

| | | |
|--------------------------------|--------------------|-------------------|
| 75. Bonham Reservoir | Bonham Unit | gravel access |
| 76. Big Creek Reservoir #1 | | 0.3 mile access |
| 77. Atkinson Reservoir | | 0.6 mile access |
| 78. Silver Lake | Cottonwood Unit | 0.3 mile access |
| 79. Forty-Acre Lake | | 0.8 mile access |
| 80. Neversweat Reservoir | | improved access |
| 81. Kitson Reservoir | | improved access |
| 82. Cottonwood Reservoir #4 | | 0.3 mile access |
| 83. Cottonwood Reservoir #1 | | improved access |
| 84. DeCamp Reservoir | | 0.9 mile access |
| 85. Big Meadows Reservoir | | improved access |
| 86. Cottonwood Reservoir #5 | | 0.9 mile access |
| 87. Monument Reservoir #1 | Leon Creek Unit | 3.0 miles access |
| 88. Marcott Park Reservoir | Surface Creek Unit | 3.2 miles access |
| 89. Y&S Reservoir | | 4.5 miles access |
| 90. Colby Horse Park Reservoir | Leon Creek Unit | 11.8 miles access |
| 91. Kenney Creek Reservoir | | 8.9 miles access |
| 92. Leon Lake | | 11.8 miles access |
| 93. Lanning Lake | | 11.8 miles access |
| 94. Hunter Reservoir | | 12.3 miles access |

Fisheries currently open to motorized access in areas highly susceptible to user impacts due to high soil moisture conditions would remain open to motorized access.

| | | |
|-----------------------------|--------------------------------|--|
| 95. Bull Creek Reservoir #2 | Bull Basin Unit | 2.7 miles access |
| 96. Bull Creek Reservoir #1 | | 2.8 miles access |
| 97. Bull Creek Reservoir #5 | | 5.2 miles access |
| 2. Butts Lake | Crag Crest Trail Unit | 1.3 miles access |
| 3. Forrest Lake* | | 0.8* in a closed area but has an open road (good) access |
| | also known as Upper Hotel Lake | |
| 4. Upper Eggleston Lake | | 0.4 miles access |

Historic fisheries currently occurring in areas with travel routes designated which would remain open to motorized access.*

| | | |
|--------------------------|-------------------|------------------|
| 98. Doughty Reservoir | Leroux Creek Unit | 1.0 mile access |
| 99. Dogfish Reservoir | | 3.0 miles access |
| 100 Goodenough Reservoir | | 3.0 miles access |
| 101 Hanson Reservoir | Leroux Creek Unit | 0.5 mile access |

*These reservoirs are not currently scheduled to be stocked by the Colorado State Division of Wildlife.

