



# Final Environmental Impact Statement



United States  
Department of  
Agriculture

Forest  
Service

## Beartooth Travel Management

Beartooth Ranger District  
Custer National Forest

Carbon, Stillwater, Sweet Grass, and Park Counties of Montana

June 2008



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**BEARTOOTH RANGER DISTRICT  
TRAVEL MANAGEMENT  
Final Environmental Impact Statement**

**Custer National Forest - Beartooth Ranger District**

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**Abstract:** District-wide travel planning was last addressed in 1987. Since that time, changes in land management policies, increases in use and demand for recreation opportunities, new developments and improvements in recreation-related technology, and increases in concerns about travel-related impacts to natural resources have occurred. These events have led to the need to re-examine travel management planning on the District.

The purpose of this project is to: 1) identify routes for public motorized use on the District, 2) provide for a variety of motorized and non-motorized opportunities, 3) minimize impacts on natural and cultural resources, and 4) have enforceable travel management guidelines.

The new travel management decision would designate system roads and trails for public motorized uses and specify the type of vehicle and season of use for each route. Motorized off-route travel would be prohibited, except where designated for access to dispersed vehicle camping. Over-snow vehicle use is not part of the decision to be made in this analysis. The action alternatives considered in this EIS represent a broad range of public sentiment regarding road and trail management, and frame the significant issues related to the decision to be made. The alternative of taking no action is also considered in this EIS. The preferred alternative is Alternative B - Modified.

**Comments on this FEIS.** Public review and comment was solicited on the “draft” environmental impact statement (DEIS), and utilized in the preparation of this final environmental impact statement (FEIS). No further public review nor public comment is being sought on this “final” EIS.

**Appeal of Decisions.** Reviewers whom disagree with information presented in this FEIS may appeal any decision based upon it. Decisions based upon this FEIS are described in separate documents. It is the reviewer’s responsibility to obtain those decision documents and follow procedures described in them to appeal the decision(s).



# TABLE OF CONTENT

## Chapter 1: Purpose and Need, and Proposed Action

<b>1.1 BACKGROUND.....</b>	<b>1-1</b>
1.1.1 HISTORY.....	1-1
1.1.2 DOCUMENT STRUCTURE.....	1-2
1.1.3 GENERAL LOCATION AND GEOGRAPHIC SETTING.....	1-2
<b>1.2 PURPOSE AND NEED.....</b>	<b>1-3</b>
1.2.1 2001 TRI-STATE OFF-HIGHWAY (OHV) VEHICLE DECISION.....	1-4
1.2.2 2005 MOTORIZED TRAVEL RULE.....	1-4
1.2.3 MANAGE RECREATION USE.....	1-4
1.2.4 ENFORCEMENT OF TRAVEL MANAGEMENT RESTRICTIONS.....	1-5
1.2.5 ROADS IN DEVELOPED RECREATION AREAS.....	1-5
<b>1.3 PROPOSED ACTION.....</b>	<b>1-5</b>
<b>1.4 SCOPE OF DECISION TO BE MADE.....</b>	<b>1-6</b>
1.4.1 DECISIONS TO BE MADE.....	1-6
1.4.2 DECISIONS THAT WILL NOT BE MADE.....	1-6
<b>1.5 LEGAL FRAMEWORK.....</b>	<b>1-7</b>
1.5.1 1986 CUSTER NATIONAL FOREST LAND AND RESOURCES MANAGEMENT PLAN.....	1-7
1.5.2 2005 MOTORIZED TRAVEL RULE.....	1-7
1.5.2.1 Access Needs.....	1-8
1.5.2.2 Conflicts Among Uses of National Forest System Lands.....	1-9
1.5.3 EXECUTIVE ORDER 11644 AS AMENDED BY EXECUTIVE ORDER 11989.....	1-9

## Chapter 2: Public Participation, Issues and Alternatives

<b>2.1 INTRODUCTION.....</b>	<b>2-1</b>
<b>2.2 PUBLIC PARTICIPATION SUMMARY.....</b>	<b>2-1</b>
2.2.1 PUBLIC SCOPING.....	2-2
2.2.2 COLLABORATION.....	2-3
2.2.3 NOTICE OF INTENT.....	2-5
2.2.4 PUBLIC INVOLVEMENT FOR THE DEIS.....	2-5
<b>2.3 SIGNIFICANT ISSUES.....</b>	<b>2-5</b>
2.3.1 RECREATION.....	2-5
2.3.2 CULTURAL RESOURCES.....	2-6
<b>2.4 OTHER ISSUES.....</b>	<b>2-7</b>
2.4.1 WATER QUALITY, FISHERIES, AND AQUATICS.....	2-7
2.4.2 WILDLIFE.....	2-7
2.4.3 SOILS.....	2-8
2.4.4 VEGETATION.....	2-8
2.4.5 INVENTORIED ROADLESS AREAS.....	2-8
2.4.6 ECONOMICS.....	2-9
2.4.7 AIR QUALITY.....	2-9
<b>2.5 ALTERNATIVES CONSIDERED IN DETAIL.....</b>	<b>2-9</b>
2.5.1 ALTERNATIVE A.....	2-10
2.5.2 ALTERNATIVE B.....	2-10
2.5.3 ALTERNATIVE C.....	2-12
2.5.4 NO ACTION ALTERNATIVE.....	2-12
2.5.5 ALTERNATIVE B MODIFIED (PREFERRED ALTERNATIVE).....	2-13
2.5.6 ELEMENTS COMMON TO ALL ALTERNATIVES.....	2-13
2.5.6.1 Public Safety.....	2-13
2.5.6.2 Implementation.....	2-15
2.5.6.3 Enforcement.....	2-15
2.5.6.4 Maintenance.....	2-17

# TABLE OF CONTENT

2.5.6.5	Administrative Exemptions.....	2-18
2.5.6.6	Forest Plan Amendment.....	2-19
2.5.6.7	Administrative Sites.....	2-19
2.5.6.8	System Roads with Forest Service Maintenance Obligations.....	2-19
2.5.6.9	Roads Under Permit.....	2-19
2.5.6.10	No Legal Right-of-Way.....	2-19
2.5.6.11	Season of Use Flexibility.....	2-19
2.5.6.12	Designated Routes Required to be Part of the National Forest System.....	2-19
2.5.6.13	Dispersed Vehicle Camping Authorized Only Authorized on National Forest System Lands.....	2-20
<b>2.6</b>	<b>ALTERNATIVES CONSIDERED BUT DROPPED FROM DETAILED ANALYSIS.....</b>	<b>2-20</b>
2.6.1	<i>LAND ZONING</i> .....	2-20
2.6.2	<i>ROUTE CONSTRUCTION</i> .....	2-20
2.6.3	<i>GAME RETRIEVAL “SEASON OF USE” ON PUNCHBOWL ROAD</i> .....	2-21
2.6.4	<i>CONVERT SINGLE TRACK NON-MOTORIZED TRAILS TO MOTORCYCLE TRAILS</i> .....	2-21
2.6.5	<i>ROADS ANALYSIS UNDER FOREST SERVICE PUBLICATION FS-643</i> .....	2-21
2.6.6	<i>CONVERT ALL ROADS TO MIXED MOTORIZED USE ROADS OR TRAILS OPEN TO ALL VEHICLES</i> .....	2-21
2.6.7	<i>DO NOT ADD ANY NON-SYSTEM ROUTES TO THE SYSTEM</i> .....	2-22
2.6.8	<i>MONTANA WILDERNESS ASSOCIATION/PRYORS COALITION VISION ALTERNATIVE</i> .....	2-22
2.6.9	<i>CUSTER PARTNERSHIP</i> .....	2-22
2.6.10	<i>SOIL UNITS</i> .....	2-22
2.6.11	<i>WILDLIFE ROAD DENSITY</i> .....	2-22
<b>2.7</b>	<b>COMPARISON OF EFFECTS.....</b>	<b>2-23</b>
<b>2.8</b>	<b>MONITORING.....</b>	<b>2-23</b>
<b>2.9</b>	<b>FOREST SERVICE PREFERRED ALTERNATIVE.....</b>	<b>2-24</b>

## Chapter 3: Affected Environment and Environmental Consequences

<b>3.1</b>	<b>INTRODUCTION.....</b>	<b>3-1</b>
3.1.1	<i>DIRECT AND INDIRECT EFFECTS</i> .....	3-1
3.1.2	<i>CUMULATIVE EFFECTS</i> .....	3-1
3.1.2.1	Past, Present, and Reasonably Foreseeable Activities.....	3-1
3.1.2.2	Activities Considered But Dropped As Reasonably Foreseeable Future Actions.....	3-3
3.1.3	<i>ENVIRONMENTAL JUSTICE</i> .....	3-3
3.1.4	<i>NATIVE AMERICAN TREATY RIGHTS</i> .....	3-4
3.1.5	<i>UNAVOIDABLE ADVERSE EFFECTS (40 CFR 1502.16)</i> .....	3-4
3.1.6	<i>RELATIONSHIP BETWEEN SHORT TERM USE AND LONG TERM PRODUCTIVITY (40 CFR 1502.16)</i> .....	3-4
3.1.7	<i>IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES (40 CFR 1502.16)</i> .....	3-4
<b>3.2</b>	<b>AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES – SIGNIFICANT ISSUES.....</b>	<b>3-5</b>
3.2.1	<i>RECREATION</i> .....	3-5
3.2.1.1	Affected Environment – Recreation.....	3-5
3.2.1.2	Environmental Consequences – Recreation.....	3-14
3.2.1.3	Conclusion – Recreation.....	3-33
3.2.1.4	Affected Environmental – Human Environment.....	3-35
3.2.1.5	Environmental Consequences – Human Environment.....	3-37
3.2.1.6	Conclusion - Human Environment.....	3-39
3.2.1.7	Affected Environment – Noise.....	3-39
3.2.1.8	Environmental Consequences – Noise.....	3-41
3.2.1.9	Conclusion – Noise.....	3-45
3.2.2	<i>CULTURAL RESOURCES</i> .....	3-45
3.2.2.1	Affected Environment– Archeological Resources.....	3-46
3.2.2.2	Environmental Consequences - Archeological Resources.....	3-54

# TABLE OF CONTENT

3.2.2.3	Conclusion - Archaeological Resources.....	3-61
3.2.2.4	Affected Environment– Traditional Cultural Properties.....	3-61
3.2.2.5	Environmental Consequences - Traditional Cultural Properties (TCPs).....	3-68
3.2.2.6	Conclusion - Traditional Cultural Properties.....	3-76
<b>3.3</b>	<b>AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES</b>	
	– <b>OTHER ISSUES</b> .....	<b>3-77</b>
3.3.1	<i>WATER QUALITY, FISHERIES, AND AQUATICS</i> .....	3-77
3.3.1.1	Affected Environment – Water Quality.....	3-77
3.3.1.2	Environmental Consequences – Water Quality.....	3-92
3.3.1.3	Conclusion - Water Quality.....	3-102
3.3.1.4	Affected Environment – Fisheries and Aquatics.....	3-102
3.3.1.5	Environmental Consequences – Fisheries and Aquatics.....	3-114
3.3.1.6	Conclusion - Fisheries and Aquatics.....	3-123
3.3.2	<i>WILDLIFE</i> .....	3-124
3.3.2.1	Affected Environment – Threatened and Endangered Species Canada Lynx.....	3-129
3.3.2.2	Environmental Consequences – Threatened and Endangered Species: Canada Lynx.....	3-130
3.3.2.3	Affected Environment – Threatened and Endangered Species: Gray Wolf.....	3-132
3.3.2.4	Environmental Consequences – Threatened and Endangered Species: Gray Wolf.....	3-133
3.3.2.5	Affected Environment – Sensitive Species: Grizzly Bear.....	3-134
3.3.2.6	Environmental Consequences – Sensitive Species: Grizzly Bear.....	3-135
3.3.2.7	Affected Environment – Sensitive Species: Wolverine.....	3-137
3.3.2.8	Environmental Consequences – Sensitive Species: Wolverine.....	3-138
3.3.2.9	Affected Environment – Sensitive Species: Bat Species.....	3-139
3.3.2.10	Environmental Consequences – Sensitive Species: Bat Species.....	3-140
3.3.2.11	Affected Environment – Management Indicator Species: Elk.....	3-141
3.3.2.12	Environmental Consequences – Management Indicator Species: Elk.....	3-143
3.3.2.13	Affected Environment – Management Indicator Species: Bighorn Sheep.....	3-145
3.3.2.14	Environmental Consequences – Management Indicator Species: Bighorn Sheep.....	3-146
3.3.2.15	Affected Environment – General Wildlife.....	3-148
3.3.2.16	Environmental Consequences – General Wildlife.....	3-153
3.3.2.17	Affected Environment – Migratory Birds.....	3-155
3.3.2.18	Environmental Consequences – Migratory Birds.....	3-158
3.3.2.19	Conclusion – Wildlife.....	3-159
3.3.3	<i>SOILS</i> .....	3-165
3.3.3.1	Affected Environment – Soils.....	3-165
3.3.3.2	Environmental Consequences – Soils.....	3-168
3.3.3.3	Conclusion – Soils.....	3-174
3.3.4	<i>VEGETATION</i> .....	3-175
3.3.4.1	Affected Environment – Vegetation.....	3-175
3.3.4.2	Environmental Consequences – Vegetation.....	3-181
3.3.4.3	Conclusion – Vegetation.....	3-189
3.3.4.4	Affected Environment – Weeds.....	3-190
3.3.4.5	Environmental Consequences – Weeds.....	3-200
3.3.4.6	Conclusion – Weeds.....	3-203
3.3.4.7	Affected Environment – Sensitive Plants.....	3-204
3.3.4.8	Environmental Consequences – Sensitive Plants.....	3-209
3.3.4.9	Conclusion - Sensitive Plants.....	3-216
3.3.5	<i>INVENTORIED ROADLESS AREAS</i> .....	3-217
3.3.5.1	Affected Environment – Inventoried Roadless Areas.....	3-217
3.3.5.2	Environment Consequences– Inventoried Roadless Areas.....	3-222
3.3.5.3	Conclusion - Inventoried Roadless Areas.....	3-229
3.3.6	<i>ECONOMICS</i> .....	3-229
3.3.6.1	Affected Environment – Economics.....	3-229
3.3.6.2	Environmental Consequences – Economics.....	3-234
3.3.6.3	Conclusion – Economics.....	3-239

# TABLE OF CONTENT

## Chapter 4: Consultation, References, and Glossary

<b>4.1 CONSULTATION</b> .....	<b>4-1</b>
4.1.1 <i>PUBLIC PARTICIPATION SUMMARY</i> .....	4-1
4.1.2 <i>CONSULTATION WITH OTHERS</i> .....	4-1
<b>4.2 DISTRIBUTION</b> .....	<b>4-2</b>
<b>4.3 LIST OF PREPARERS</b> .....	<b>4-3</b>
<b>4.4 REFERENCES</b> .....	<b>4-5</b>
4.4.1 <i>PUBLIC SAFETY</i> .....	4-5
4.4.2 <i>AIR QUALITY</i> .....	4-5
4.4.3 <i>RECREATION</i> .....	4-5
4.4.3.1 Recreation.....	4-5
4.4.3.2 Human Environment.....	4-6
4.4.3.3 Noise.....	4-6
4.4.4 <i>CULTURAL RESOURCES</i> .....	4-7
4.4.4.1 Archeological Resources.....	4-7
4.4.4.2 Traditional Cultural Properties.....	4-10
4.4.5 <i>WATER QUALITY, FISHERIES, AND AQUATICS</i> .....	4-10
4.4.5.1 Water.....	4-10
4.4.5.2 Fisheries and Aquatics.....	4-12
4.4.6 <i>WILDLIFE</i> .....	4-14
4.4.7 <i>SOILS</i> .....	4-22
4.4.8 <i>VEGETATION</i> .....	4-23
4.4.8.1 Vegetation.....	4-23
4.4.8.2 Weeds.....	4-23
4.4.8.3 Sensitive Plants.....	4-24
4.4.9 <i>INVENTORIED ROADLESS AREAS</i> .....	4-25
4.4.10 <i>ECONOMICS</i> .....	4-25
<b>4.5 GLOSSARY</b> .....	<b>4-26</b>

## Chapter 5: Response to Comments

<b>5.1 PUBLIC COMMENT ANALYSIS PROCESS</b> .....	<b>5-1</b>
<b>5.2 RESPONSE TO COMMENTS</b> .....	<b>5-8</b>
<i>CULTURAL RESOURCES</i> .....	5-8
<i>ECONOMICS</i> .....	5-11
<i>FISHERIES AND AQUATICS</i> .....	5-15
<i>HUMAN ENVIRONMENT</i> .....	5-18
<i>IMPLEMENTATION AND ENFORCEMENT</i> .....	5-20
<i>MAINTENANCE</i> .....	5-27
<i>MANAGEMENT</i> .....	5-30
<i>MISCELLANEOUS</i> .....	5-36
<i>NOISE</i> .....	5-70
<i>RECREATION</i> .....	5-71
<i>SAFETY</i> .....	5-90
<i>SEASON OF USE</i> .....	5-92
<i>SOILS</i> .....	5-97
<i>VEGETATION</i> .....	5-100
<i>WATER QUALITY</i> .....	5-107
<i>WILDLIFE</i> .....	5-114
<i>OPPORTUNITIES</i> .....	5-128

# TABLE OF CONTENT

## **Appendices**

- Appendix A: 2005 Motorized Travel Rule
- Appendix B: Forest Plan Direction and Proposed Changes
- Appendix C: Alternative Details by Route
- Appendix D: Dispersed Vehicle Camping
- Appendix E: Opportunities
- Appendix F: Season of Use Determination
- Appendix G: Actions Outside the Scope of the Analysis
- Appendix H: Agency Letters
- Appendix I: Biological Assessment
- Appendix J: USDI Fish and Wildlife Service Concurrence

## **Index**

## **Map Section**

- North Beartooth Unit: All Alternatives / Middle Beartooth Unit: All Alternatives
- South Beartooth Unit: All Alternatives / Pryor Unit: All Alternatives
- Alternative B Modified: All Units

# Chapter 1: Purpose and Need, and Proposed Action

## OVERVIEW OF CHANGES FROM THE DRAFT TO THE FINAL EIS

- Additional history related to this process has been added to the Background section.
- The “Motorized Recreation Opportunities and Impacts” has been renamed “Manage Recreation Use” and the section has been re-written to more accurately convey the original concept for this section. This section was intended to convey the need to manage recreational use related to travel management to reduce impacts that result from not providing management of these activities.
- The Pack and Saddle Stock portion of the Purpose and Need section has been removed in response to public comments. Rationale for this change is provided in the Purpose and Need section.
- The section on “Decisions Outside the Scope of this Analysis” has been removed and placed in Appendix G.
- The general description of the proposed action has been clarified.
- The Inventoried Roadless Area section has been moved to Chapter 3 and expanded in response to public comments.
- Consolidated implementation information originally in the Proposed Action section of this chapter with other implementation information found in DEIS and placed it in the Elements Common to All Alternatives section of Chapter 2.

## 1.1 BACKGROUND

### 1.1.1 HISTORY

Travel management planning, or management of roads and trails, has received increasing attention in the last decade within the Forest Service. This increased attention is largely the result of increased use of National Forests for recreation purposes. Increased forest visitation has led to concerns that much of this increased use is unmanaged and may be causing undesirable resource and social impacts.

One of the initial activities on the Custer National Forest (Forest) related to the recent travel management focus was to inventory motorized and non-motorized routes. This effort was intended to establish a baseline for future analyses. The Forest undertook this work during 1999 and 2000. This effort was in preparation of the Northern Region of the Forest Service’s (Region) analysis of cross-country vehicle use. In 2001, the Region distributed the Tri-State Off-Highway Vehicle Decision (2001 Tri-State OHV Decision) based on that analysis. The primary focus of the decision was to require motorized vehicles to stay on existing motorized routes.

During this time, the Forest Service also provided a national framework for conducting roads analyses. The Forest Scale Roads Analysis for the Custer National Forest (see Project Record) was completed on the Forest in January, 2003 based on this framework. The report highlighted potential impacts of roads and/or motorized access on wildlife, water quality, cultural resources; right-of-way issues; and potential changes to road management objectives.

## **Chapter 1: Purpose and Need, and Proposed Action**

The Beartooth Ranger District (District) initiated District-wide travel management planning in response to both the 2001 Tri-State OHV Decision and the Forest Scale Roads Analysis by issuing a Travel Management Planning Proposed Action in 2004. The key findings in the Forest Scale Roads Analysis report were used in the development of this proposal. The following year the Forest Service finalized the 2005 Motorized Travel Rule that outlined a process for motorized travel management planning to be used by all National Forests. The direction contained in the 2005 Motorized Travel Rule was incorporated into the District's ongoing travel management analysis and a draft environmental impact statement (DEIS) was distributed for public review in 2007. The information gathered from each of these efforts and the public involvement on these projects was used to prepare this final environmental impact statement (FEIS) for travel management planning on the District.

### ***1.1.2 DOCUMENT STRUCTURE***

This Environmental Impact Statement (EIS) discloses the potential environmental, cultural, social, and economic consequences of implementing alternatives to manage travel management within the Beartooth Ranger District (District), Custer National Forest, Montana. The consequences of taking no action are also disclosed. This EIS, in conjunction with public comments, legal requirements, and existing management direction, will be used to establish travel management direction for the District.

This analysis is organized into five chapters and an appendices section. Chapter 1 identifies the reasons that the project is being conducted, legal requirements, and analysis parameters. Chapter 2 describes the public involvement, issues, and alternatives, including those not analyzed in detail. Chapter 3 presents the applicable affected environment and environmental consequences for each of the significant and other issues identified for this project. Chapter 4 describes the coordination conducted for this process and the individuals responsible for preparing the document. Chapter 5 displays response to comments to the Draft EIS. The Appendices incorporate additional material needed to more fully understand the analyses and alternatives.

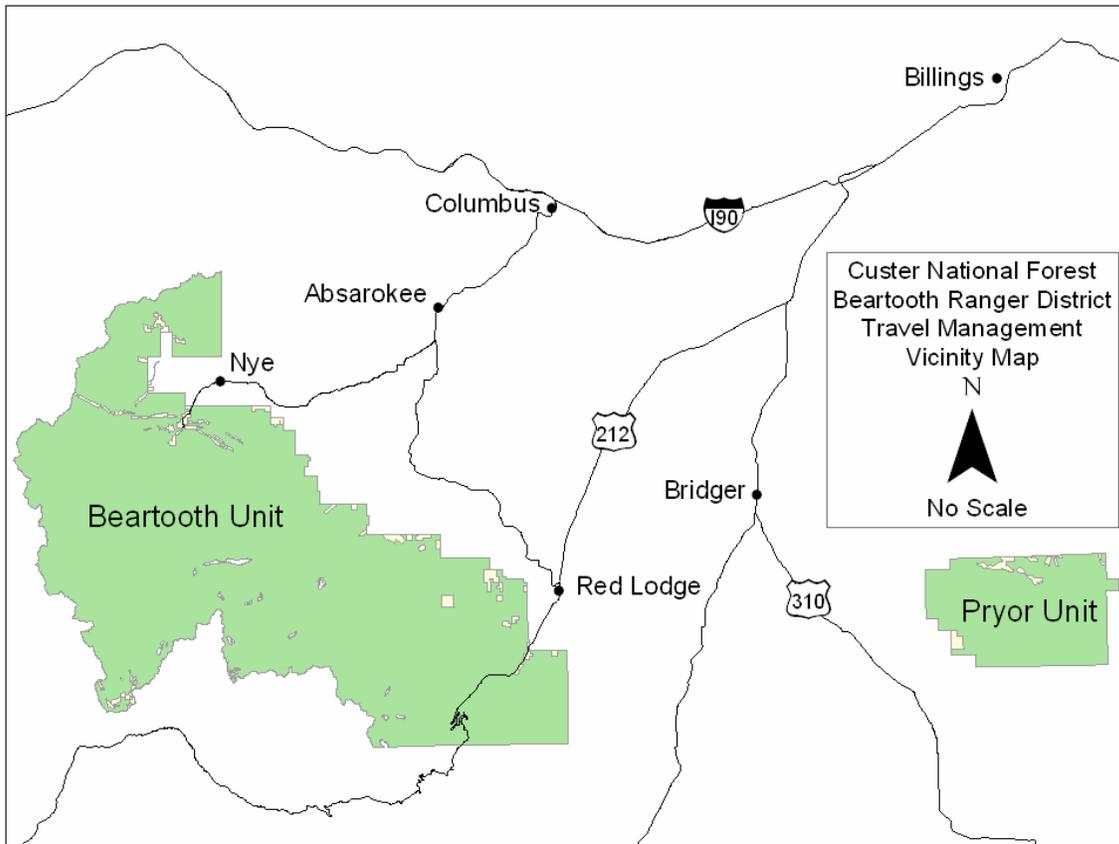
This EIS has been prepared in compliance with the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing NEPA provisions (40 CFR 1500), the National Forest Management Act and its accompanying regulations, Forest Service Manuals and Handbooks, and applicable Department of Agriculture and agency guidance.

### ***1.1.3 GENERAL LOCATION AND GEOGRAPHIC SETTING***

The Beartooth Ranger District, situated in south-central Montana, is composed of two separate and unique geographic units, known as the Beartooth and Pryor units (see vicinity map below). The Beartooth Unit consists of approximately 512,943 acres of National Forest System land. Approximately thirty miles to the east is the Pryor Unit which consists of approximately 74,932 acres of National Forest System land.

The Beartooth Unit borders the Gallatin National Forest on the west and has some common boundary with the Shoshone National Forest in Wyoming to the south. The majority of the north and east boundaries of the unit border private lands combined with minor amounts of Bureau of Land Management (BLM) and State of Montana administered lands. The Beartooth Unit is located in portions of four Montana counties: Carbon, Park, Stillwater and Sweet Grass. The unit is comprised of mountains, foothills, valleys, and plateaus associated with the Beartooth Mountain Range.

The Pryor Unit contains the southern portion of the Pryor Mountain Range. This unit is bordered on the north by the Crow Reservation. The entire south boundary and the majority of the east and west boundaries are shared with the BLM. Minor portions of the east and west boundaries border private lands. The entire Pryor Unit lies within Carbon County.



## 1.2 PURPOSE AND NEED

The purpose of this project is to: 1) identify routes for public motorized use on the District, 2) provide for a variety of motorized and non-motorized opportunities, 3) minimize impacts on natural and cultural resources, and 4) have enforceable travel management guidelines.

District-wide travel planning was last addressed in 1987. Since that time, changes in land management policies, increases in use and demand for recreation opportunities, new developments and improvements in recreation-related technology, and increases in concerns about travel-related impacts to natural resources have occurred. These events have led to the need to re-examine travel management planning on the District. More detailed information about these events and the needs that stem from them is presented below.

Comments on the DEIS questioned the appropriateness of addressing issues related to pack and saddle stock camping impacts in Wilderness through this travel management planning process. Commenters questioned whether the impacts were a direct effect of trail management, whether the proposed pack and saddle stock restrictions would result in the desired outcome, and suggested that it may be more

## **Chapter 1: Purpose and Need, and Proposed Action**

appropriate to address this issue through a Wilderness management plan or other site specific measures. The Forest agrees with these comments and intends to address this issue outside of this process. Consequently, the portion of the purpose and need related to pack and saddle stock impacts contained in the DEIS has been removed from this analysis.

### ***1.2.1 2001 TRI-STATE OFF-HIGHWAY (OHV) VEHICLE DECISION***

In 2001, the Forest Service issued a decision that addressed unmanaged motorized cross-country travel on all National Forest System lands in Montana, North Dakota and parts of South Dakota (Bosworth, 2001). It also directed National Forests within this area to set up a schedule for completing site-specific planning that would designate appropriate uses on motorized routes. The Custer National Forest implemented a forest order in response to the Tri-State OHV Decision that prohibited cross-country motorized vehicle travel except for dispersed vehicle camping within 300 feet of motorized routes (Curriden, 2001). In addition, the Forest initiated travel management planning in 2003 on the Beartooth Ranger District in response to the direction in the 2001 Tri-State OHV Decision. There is a need to complete this effort to comply with the objective set forth in this decision.

### ***1.2.2 2005 MOTORIZED TRAVEL RULE***

In December 2005, a new travel management rule took effect for all National Forest System lands (Appendix A). The new rule directs National Forests to designate roads, trails, and areas suitable for motorized travel. The actions described in this document are part of the planning process to select routes for designation under the new regulation. All National Forests are expected to complete the planning and designation process by 2009. The Chief of the Forest Service committed to completing the District motorized travel management planning by October 2008. This commitment is displayed in the Chief's schedule for completion of travel management planning for National Forests and Grasslands available on the internet at <http://www.fs.fed.us/recreation/programs/ohv/summary07.pdf>. The Custer needs to complete travel management for the District to fulfill this commitment.

### ***1.2.3 MANAGE RECREATION USE***

Former Chief Dale Bosworth recognized unmanaged recreation as one of the four threats facing sustainable management of the National Forests. Although recreation is a valid use of National Forest System lands, unmanaged recreation use, whether motorized or non-motorized, has the potential to result in unintended consequences, such as undesirable resource impacts and unnecessarily elevated user conflict. Certain aspects of travel management on the District have at times been unmanaged or management has been limited. The presence of several miles of non-system roads on the District are an indication of this. This situation has resulted in concerns that routes and activities may be adversely impacting resources and users. There is a need to manage forest visitor travel to reduce potential resource impacts and user conflicts, while still providing a diversity of recreation opportunities.

#### **1.2.4 ENFORCEMENT OF TRAVEL MANAGEMENT RESTRICTIONS**

The need to evaluate travel management planning at this time is also driven by a need to improve the enforceability of restrictions on motorized recreation. Over the years, procedural issues with implementation of portions of the 1987 Travel Plan have surfaced, which have hampered enforcing the plan, especially the absence of a map produced at the time the plan was prepared. The inability to clearly determine when violations of the 1987 Travel Plan restrictions have occurred has resulted in some undesirable resource impacts and the potential for more. In addition, there are inconsistencies between the 1987 Travel Plan and the 2001 Tri-State OHV Decision, especially with respect to non-system routes. Resolving these inconsistencies and implementing travel management planning that are consistent with the 2005 Motorized Travel Rule would improve the District's ability to enforce travel management restrictions.

#### **1.2.5 ROADS IN DEVELOPED RECREATION AREAS**

There is a need to convert several non-system routes associated with developed recreation sites to system roads. These routes are considered part of the basic administrative infrastructure of the District, but have never formally been identified as National Forest System roads. They include routes in campgrounds, trailheads, recreation residence tracts, and day use areas that provide public recreation opportunities. These non-system routes cannot be designated for public use under the 2005 Motorized Travel Rule unless they are first converted to system roads.

There is also a need to restrict the use of roads within gated campgrounds when they are closed, to protect facilities and resources in the campgrounds.

### **1.3 PROPOSED ACTION**

The *Beartooth Ranger District Travel Management Proposal* (Proposal) was distributed in 2004. The Proposal reflected the guidance at that time to include all system and non-system roads and trails in the proposal and display the intended use for all of them. In other words, the Proposal contained routes where changes were proposed and routes where no changes were proposed. The following year the agency finalized the 2005 Motorized Travel Rule. Guidance associated with this Rule recommended that travel management proposals focus on proposed changes to the system so that the public, responsible official and the interdisciplinary team can focus on those areas where changes are proposed. This was different than the approach used to prepare the Proposal.

To comply with the 2005 Motorized Travel Rule, the 2004 proposed action was re-formatted. As a part of this re-formatting effort, interdisciplinary team members went through the original proposed action to determine if each of the proposed actions was reasonable and still desirable, and supplemented rationale for proposed actions wherever appropriate. Some actions were dropped because conditions or use had changed, or the original basis for the proposal was not clear and could not be substantiated. The original proposed action has been dropped from further analysis (see section 2.5.1). However, the proposed action was the basis for Alternative B and represents the re-formatting effort, updates, and input that transpired between distribution of the 2004 proposed action and the 2007 DEIS. Specific actions associated with Alternative B are contained in Appendix C, Table C-2, and include the following types of actions that the Forest Service is proposing to implement:

- Designate a system of roads and trails on the District for motorized public use.

## **Chapter 1: Purpose and Need, and Proposed Action**

- Designate the type of vehicle and season of use for each system road and motorized system trail.
- Change certain system roads to motorized trails or mixed motorized use roads.
- Change certain unauthorized (non-system) routes to system roads and/or system trails that address administrative, utilization, or protection needs.
- Change certain system road, non-system routes, and motorized system trails to non-motorized system trails.
- Identify those system roads and non-system routes to be used for administrative use only.
- Designate dispersed vehicle camping along motorized routes.
- Change system roads for which there is no administrative, utilization, or protection need identified to Maintenance Level 1 system roads available for potential decommissioning in the future.

The Custer National Forest Land and Resource Management Plan (Forest Plan) would be amended to change guidance related to public road designation and restrictions on the District in order to be consistent with the route designation decisions made in the Record of Decision (ROD). These proposed amendments can be found in Appendix B. They generally involve deleting site-specific management direction related to a few specific routes. Management of these routes in the future would be through the site-specific decisions, like this analysis, associated with producing the MVUM. The proposed amendments to the Forest Plan are considered minor and would not require Regional Forester approval to implement.

### **1.4 SCOPE OF DECISION TO BE MADE**

#### ***1.4.1 DECISIONS TO BE MADE***

The decision to be made is to designate a system of roads and trails on the District for public motorized use. In addition, some unauthorized (non-system) routes could be converted to system roads and trails, and some system motorized routes may be changed to system non-motorized trails. The type of vehicle and season of use would also be designated for each system road and motorized system trail. Dispersed vehicle camping distances or site specific restrictions will be determined.

The 1986 Forest Plan would be amended to change guidance related to public road designation and restrictions on the Beartooth Ranger District in order to be in compliance with the decisions made in the ROD. Related existing orders that are not consistent with the decision made in the ROD would be rescinded and any new ones that are necessary for implementation would be issued.

#### ***1.4.2 DECISIONS THAT WILL NOT BE MADE***

There were several subjects that commenters on the proposed action and DEIS thought should be decided through this process, including cross-country game retrieval, exemptions for accessibility, changes to rights of access, over-snow vehicle use, designated cross-country motorized areas, decommissioning or obliterating routes, construction of routes, route designation for the Upper Stillwater Basin. The Deciding Official has determined that these actions are outside the scope of the analysis for this process. The specific rationale for this determination can be found in Appendix G.

## 1.5 LEGAL FRAMEWORK

The Forest Service must comply with laws, regulations, and policies in the management of the District. The 1986 Custer National Forest Land and Resources Management Plan (Forest Plan) is a part of the policy framework within which the Forest Service must conduct the analysis of the Beartooth Travel Management Plan. This framework also includes the laws, regulations, and policies that relate to travel management or the effects associated with travel management and travel management planning.

### *1.5.1 1986 CUSTER NATIONAL FOREST LAND AND RESOURCES MANAGEMENT PLAN*

The Forest Plan directs management of all Forest Service administered lands within the Custer including the District. The Forest Plan provides both Forest-wide Management direction and direction for specific management areas. Forest Plan direction related to travel management is listed in Appendix B. The Appendix also identifies those portions of the plan proposed to be amended by the project.

### *1.5.2 2005 MOTORIZED TRAVEL RULE*

The 2005 Motorized Travel Rule requires consideration of the effects of designating roads, trails and areas on specific resources and components of travel management. The Rule states, “In designating National Forest System roads, National Forest System trails, and areas on the National Forest System lands for motor vehicle use, the responsible official shall consider effects on National Forest System natural and cultural resources, public safety, provision of recreation opportunities, access needs, conflicts among uses of National Forest System lands, the need for maintenance and administration of roads, trails, and areas that would arise if the uses under consideration are designated; and the availability of resources for that maintenance and administration.” (36 CFR 212.55 (a)).

The Rule also contains specific criteria related to designating trails and to designating roads. For trails, it states, “In addition to the criteria listed in paragraph [a] of this section, in designating National Forest System trails and areas on National Forest System lands, the responsible official shall consider effects on the following, with the objective of minimizing: (1) Damage to soil, watershed, vegetation, and other forest resources; (2) Harassment of wildlife and significant disruption of wildlife habitats; (3) Conflicts between motor vehicle use and existing or proposed recreation uses of National Forest System lands or neighboring Federal lands; and (4) Conflicts among different classes of motor vehicle uses of National Forest System lands or neighboring Federal lands. In addition, the responsible official shall consider: (5) Compatibility of motor vehicle use with existing conditions in populated areas, taking into account sound, emissions, and others factors.” (36 CFR 212.55 (b))

For roads, the Rule states, “In addition to the criteria in paragraph [a] of this section, in designating National Forest System roads, the responsible official shall consider: (1) Speed, volume, composition, and distribution of traffic on roads; and (2) Compatibility of vehicle class with road geometry and road surfacing.” (36 CFR 212.55 (c))

The effects associated with resources listed in the criteria identified above, are disclosed in this document for consideration by the responsible official. This disclosure of effects, in many cases, coincides with the disclosure of effects necessary for compliance with NEPA. However, the requirements of the 2005 Motorized Travel Rule do not supplant compliance with NEPA, rather the

**Chapter 1: Purpose and Need, and Proposed Action**

effects disclosure required by the Rule are in addition to that required by NEPA. The location of the effects disclosures for each of the criteria are listed in the following Table. Because no designated motorized areas are proposed in any of the action alternatives, there is no discussion of criteria related to designation of areas.

**Table 1–1. Guide to Locating Effects Disclosures of the Criteria Identified in the 2005 Motorized Travel Management Rule**

<b>Rule Criteria</b>	<b>Location in Document</b>
<b>General</b>	
Natural Resources	Soils, Water, Vegetation, and Wildlife sections of Chapter 3; Air Quality in the Issues section of Chapter 2.
Cultural Resources	Cultural Resources section of Chapter 3.
Public Safety	Public Safety in Alternatives section of Chapter 2.
Provision of Recreation Opportunities	Recreation section of Chapter 3.
Access Needs	Refer to Access discussion below.
Conflicts Among Uses of National Forest System Lands	Recreation and Cultural Resource sections of Chapter 3; also refer to discussion below.
Need for Maintenance and Administration of Roads, Trails and Areas That Would Arise As a Result of Designation	Public Safety and Maintenance in Alternatives section of Chapter 2
Availability of Resources for Maintenance and Administration	Maintenance in Alternatives section of Chapter 2.
<b>Trail Specific</b>	
Damage to Soil, Watershed, Vegetation and Other Forest Resources	Soils, Water, Vegetation, and Wildlife sections of Chapter 3; Air Quality in the Issues section of Chapter 2.
Harassment of Wildlife and Significant Disruption of Wildlife Habitats	Wildlife section of Chapter 3.
Conflicts Between Motor Vehicle Use and Existing or Proposed Recreation Uses of National Forest System Lands or Neighboring Federal Lands	Recreation section of Chapter 3.
Conflicts Among Different Classes of Motor Vehicle Uses of National Forest System Lands or Neighboring Federal Lands	Recreation section of Chapter 3.
Compatibility of Motor Vehicle Use with Existing Conditions in Populated Areas, Taking Into Account Sound, Emissions, and Others Factors	Recreation (Noise) section of Chapter 3; Air Quality in Issues section of Chapter 2.
<b>Road Specific</b>	
Speed, Volume, Composition, and Distribution of Traffic on Roads	Public Safety in Alternatives section of Chapter 2.
Compatibility of Vehicle Class with Road Geometry and Road Surfacing	Public Safety in Alternatives section of Chapter 2.

**1.5.2.1 Access Needs**

As required by the 2005 Motorized Travel Rule, access to National Forest lands was considered. The 1986 Forest Plan access goal is to provide at least one access point per five miles of administrative boundary where there is not adequate access from inside National Forest System land. There are still a number of areas on the Forest that are not easily accessible by the general public, because private lands adjacent to the Forest currently preclude access or roads/trails do not exist. Some additional access points have been identified outside of this process and, over time, access to the Forest may be increased. However, the intent will not be to provide road/trail access to all areas on the Forest. Identified access needs are not ripe for analysis or decision and therefore will not be addressed in this analysis.

### **1.5.2.2 Conflicts Among Uses of National Forest System Lands**

The Recreation, Cultural Resources and Human Environment sections of Chapter 3 each address aspects of conflicts among uses, primarily among users, including effects of motorized activities on non-motorized forest visitors and effects of motorized activities on uses associated with traditional religious and cultural practices. Conflict among other uses that may result from designation of system roads and trails, such as conflicts between motorized recreation and timber harvest activities, range management, and permit administration, were considered by the interdisciplinary team, but no substantive conflicts between these uses were identified.

### ***1.5.3 EXECUTIVE ORDER 11644 AS AMENDED BY EXECUTIVE ORDER 11989***

Executive Order (EO) 11644 required federal land management agencies to establish policies and procedures for management of motorized vehicles on public lands to protect resources, promote safety of users, and minimize conflicts among uses. Executive Order 11989 amended EO 11644 with additional guidance on protecting resources when establishing policies related to motorized travel on public lands. The 2005 Motorized Travel Rule is the agency's implementation of these executive orders.

**Chapter 1: Purpose and Need, and Proposed Action**

**- End of Chapter 1 -**

# Chapter 2: Public Participation, Issues and Alternatives

## OVERVIEW OF CHANGES FROM THE DRAFT TO THE FINAL EIS

- Alternative B Modified has been added to the range of alternatives considered. Alternative B Modified was developed in response to public comments regarding a variety of site-specific concerns.
- Additional details about the collaborative process have been provided, as well as the addition of information related to the public comment period for the DEIS.
- The issues section has been re-formatted to aid in identifying the significant issues and the indicators used to display differences between effects of the alternatives have been added.
- Additional alternatives considered but dropped from further analysis have been incorporated.
- Rationale for selection of the Forest Service Preferred Alternative has been added in response to public comment.
- The Safety, Implementation, Maintenance, and Enforcement sections in Chapter 3 of the DEIS have been revised and moved to the Elements Common to All Alternatives section of this chapter. The Forest Service determined that these elements were not significant issues and represented managerial rather than environmental concerns. Consequently, they were revised and moved to this chapter.

## 2.1 INTRODUCTION

This chapter reviews the public involvement for this process, identifies issues, and describes and compares five alternatives considered for management of motorized and non-motorized travel. A summary of effects by alternative is also displayed at the end of this chapter.

## 2.2 PUBLIC PARTICIPATION SUMMARY

Public participation specific to the Beartooth Ranger District Travel Management EIS is summarized in this chapter. The summary describes the public involvement, identifies persons and organizations contacted during preparation of the EIS, and specifies time frames for accomplishing goals in accordance with 40 CFR 1506.6

Public involvement includes the necessary steps to identify and address public concerns and needs. The public involvement process assists agencies in: (1) broadening the information base for decision making; (2) informing the public about the Proposed Action and the potential long-term impacts that could result from the project; and (3) ensuring that public needs are understood by the agencies.

Public participation is required by NEPA at three specific points: the scoping period, review of the Draft EIS, and receipt of the Record of Decision.

**Chapter 2: Public Participation, Issues and Alternatives**

Table 2-1 lists the public meetings conducted in conjunction with the process to date.

**Table 2-1. Summary of Public Meetings**

<b>Location</b>	<b>Date/Time</b>	<b>Number of Attendees</b>
<b>Proposed Action Scoping Meetings</b>		
Billings, MT	February 9, 2004, 6:00 pm	49
Red Lodge, MT	February 10, 2004, 6:00 pm	52
Bridger, MT	February 17, 2004, 7:00 pm	54
Columbus, MT	February 18, 2004, 7:00 pm	32
Pryor, MT	April 26, 2004, 6:30 pm	6
Billings, MT	May 11, 2004, 6:30 pm	30
Lovell, WY	May 25, 2004, 6:30 pm	16
<b>Project Update Meetings</b>		
Red Lodge, MT	July 18, 2006, 7:00 pm	9
Bridger, MT	July 19, 2006, 7:00 pm	0
Billings, MT	July 24, 2006, 6:00 pm	20
Columbus, MT	July 26, 2006, 7:00 pm	9
Lovell, WY	July 27, 2006, 7:00 pm	3
<b>Collaborative Meetings</b>		
Billings, MT	January 20, 2007, 9:00 am	68
Billings, MT	February 10, 2007, 9:00 am	79
Billings, MT	February 24, 2007, 9:00 am	84
Billings, MT	March 10, 2007, 9:00 am	90
Billings, MT	March 24, 2007, 9:00 am	117
Billings, MT	March 31, 2007, 9:00 am	152
Billings, MT	April 14, 2007, 9:00 am	159
<b>DEIS Meetings</b>		
Billings, MT (Yellowstone Valley Audubon Society's Meeting)	October 15, 2007, 7:00 PM	~38
Red Lodge, MT	October 16, 2007, 6:00 PM	22
Bridger, MT	October 17, 2007, 6:00 PM	9
Lovell, WY	October 18, 2007, 6:00 PM	8
Billings, MT	October 22, 2007, 6:00 PM	50
Columbus, MT	October 23, 2007, 6:00 PM	13
Billings, MT (Families For Outdoor Recreation/Custer Partnership's Meeting)	November 1, 2007, 6:00 PM	~ 21

**2.2.1 PUBLIC SCOPING**

Scoping is a process used to help identify specific areas of concern related to the proposal during the early portion of the detailed environmental analysis. The initial scoping document (see Project Record) for this project was sent on February 2, 2004 to approximately 91 individuals, government agencies, tribal governments, news media, businesses, and organizations that have shown interest in projects on the Custer National Forest, and in particular on the Beartooth Ranger District. This document provided information on the purpose and need for the project, described the proposed action, and asked for comments. A legal advertisement inviting comments was placed in the Billings Gazette (Billings, MT) on February 2, 2004. News releases were sent to local newspapers including Carbon County News, Clarks Fork Valley Press, Cooke City brochure, Yellowstone County News, Outpost, Bighorn County News, Stillwater County News, Lovell Chronicle, Powell Tribune, and Cody Enterprise. These media efforts helped to publicize the proposal and comment period. People were asked to comment within 30 days, which ended on May 1, 2004. Due to public response, the

comment period was extended to September 1, 2004. During this time approximately 200 additional documents were distributed. This project is also described on the Custer web page, which is found at: <http://www.fs.fed.us/r1/custer/projects/index.shtml>.

Public meetings were held in multiple locations (see Table 2-1) in February 2004 to discuss the scoping document. A second set of public meetings were held in July 2006 to discuss process changes due to the 2005 Motorized Travel Management Rule, new members of the interdisciplinary team, and update project status and timelines (see Table 2-1). Attendance at these meetings ranged from no attendance to 60 individuals for a total of approximately 250 participants.

In response to these efforts, over 5000 letters, personal comments, or phone calls were received. Collaborative group session information was documented and reviewed. The analysis of electronic, written and verbal comments preliminarily identified several potential issues. Two of these issues were identified as significant issues and were used to formulate many elements of the alternatives.

**2.2.2 COLLABORATION**

The public scoping for this project indicated there were potentially irresolvable differing public value preferences related to road and trail management on the Beartooth District, especially the Pryor Unit. These preferences could generally be characterized as personal preferences for the amount of motorized and non-motorized recreation opportunities available. In an effort to determine if the community could reach any points of agreement about travel management planning on the District, seven collaboration meetings were held over a period of four months in early 2007 (see Table 2-1). The meeting objectives were to: provide opportunities for the public to hear various individual and group opinions; explore areas of common ground; provide resource and regulatory information; and potentially generate portions or all of a community collaborative alternative.

The attendance at the collaboration sessions ranged from 65 to 159 individuals. The attendees worked together during these seven half day sessions reviewing information and maps to identify points of agreement. Points of agreement were sought on motorized and non-motorized routes (both system and non-system), motorized and non-motorized areas, opportunities for new routes, and areas for over-snow machine operation. No specific collaborative alternative was developed, but some points of agreement on designating routes for public motorized use and routes for non-motorized use were reached. They are displayed in the following table. Because the roads and trails contained in the table represent points of agreement between the diverse parties interested in this project, each of these routes were included in all of the action alternatives.

**Table 2-2. Road and Trail Points of Agreement Identified During Collaborative Meetings.**

Route No.	Name	Type
15	East Rosebud	Non-Motorized
17	Phantom Creek	Non-Motorized
19	West Rosebud	Non-Motorized
2004	Hellroaring Creek	Motorized
2071	West Fork Rock Creek	Motorized
2072	West Rosebud	Motorized
2072A	Pine Grove Campground	Motorized
2072A1	Pine Grove Cg South Loop	Motorized
2072B	Pine Grove North Loop	Motorized

**Table 2-2. Road and Trail Points of Agreement Identified During Collaborative Meetings.**

Route No.	Name	Type
2072C	Emerald Lake Inlet	Motorized
2072D	Emerald Lake South Loop	Motorized
2085	Crooked Creek	Motorized
2091	Red Pryor Divide	Motorized
21	Grasshopper Glacier	Non-Motorized
2140	Picket Pin	Motorized
2140B	Iron Mountain	Motorized
2140B2	2140B2	Motorized
2177	East Rosebud	Motorized
21771	Boat Launch Parking	Motorized
2177A	Upper Sand Dune Picnic Area	Motorized
2177D	Jimmy Joe Campground	Motorized
2177E	Lower Sand Dune Picnic Area	Motorized
2308	Pryor Mountain Road	Motorized
2346	Lake Fork	Motorized
24	Stillwater Trail	Non-Motorized
2400	Stillwater Trailhead Rd	Motorized
2400A	Woodbine Cg Entrance Road	Motorized
2400B	Woodbine Cg First Loop Left	Motorized
2400C	Woodbine Cg Second Loop Left	Motorized
2400D	Woodbine Cg First Loop Right	Motorized
2400E	Woodbine Cg Second Loop Right	Motorized
2414	Benbow	Motorized
24141	Benbow Mill Dispersed Campsite	Motorized
241410	241410	Motorized
241410B	241410B	Motorized
24143	24143	Motorized
24148	Little Rocky Creek	Motorized
2415	Benbow Jeep Trail	Motorized
2421	Main Fork Rock Creek	Motorized
2476	Silver Run	Motorized
2846	West Fork Stillwater	Motorized
2850	Stockman Trail	Motorized
34	Horseshoe	Non-Motorized
43	Fish Lake	Non-Motorized
44	Rainbow Lakes	Non-Motorized
90	West Fork Stillwater	Non-Motorized
91	Pinchot Lake	Non-Motorized
97	Columbine Pass	Non-Motorized

The majority of the points of agreement identified by participants are on the Beartooth Unit. Less agreement about the preferred amounts of motorized and non-motorized recreation opportunities was reached in the Pryor Unit. The only points of agreement in the Pryor Unit consisted of Crooked Creek (#2085) and portions of Pryor Mountain Road (#2308) and Stockman Trail (#2850).

### **2.2.3 NOTICE OF INTENT**

A Notice of Intent (NOI) was published in the Federal Register on July 25, 2007. The NOI identified that when the Draft Environmental Impact Statement was distributed, the public would have a 45-day comment period from the date when the Environmental Protection Agency publishes the Notice of Availability in the Federal Register. Also, a news release was provided to local news media at the beginning of the 45-day comment period on the Draft EIS. The Draft EIS was made available to interested parties identified in the updated EIS mailing list.

### **2.2.4 PUBLIC INVOLVEMENT FOR THE DEIS**

The Notice of Availability for the Draft EIS was published in the Federal Register October 5, 2007 which began a 60 day comment period (original 45 day comment period with a 15 day extension). News releases were provided to local news media at the beginning of the comment period. The DEIS was distributed to the public on September 24, 2007. The Forest conducted five public open houses and attended two interest group's meetings to provide information and encourage input on the DEIS (see Table 2-1). The public open house meetings included a brief overview of the DEIS and the process, and opportunities for the public to ask questions in a group setting and one-on-one with interdisciplinary team members and the District Ranger. In response to the comment period, the Forest received 513 comment letters, e-mails, and documented phone conversations on the DEIS. Three of the 513 letters were received after the deadline. Further information on commenters and substantive comments identified in the letters, e-mails, and phone conversations can be found in Chapter 4. A content analysis of the comments was conducted and response to comments is found in Chapter 5.

## **2.3 SIGNIFICANT ISSUES**

One purpose of scoping is to identify the significant issues that should be analyzed in depth within an EIS (40 CFR 1501.7). The significant issues become the focus of the analysis and guide alternative development. All public scoping comments were considered by the interdisciplinary team and Responsible Official, and are documented in the project record.

As a result of reviewing and analyzing agency and public responses, the following significant issues were identified. These were used to develop the range of alternatives and are analyzed in detail in Chapter 3.

### **2.3.1 RECREATION**

**Concern about motorized recreation opportunities.** Reductions in the amount of routes available for motorized use could reduce the opportunities available for motorized recreation, reduce the opportunities to take motorized trips on routes that loop back to the starting point, and potentially increase motorized congestion. There are particular concerns with these motorized opportunities in the Pryor Unit. Alternative A was developed to respond to this issue.

Indicators:

- Acres in rural, roaded natural, and semi-primitive motorized ROS settings within the District by Beartooth and Pryor Unit.

## Chapter 2: Public Participation, Issues and Alternatives

- Miles of motorized system roads and trails to be designated on the District by Beartooth and Pryor Unit.

**Concern about non-motorized recreation opportunities.** Increases in the amount of routes designated for motorized use could reduce the quality of non-motorized recreation experiences and reduce the opportunities for solitude, away from noise generated by motorize vehicles. There are particular concerns with these opportunities in the Pryor Unit. Alternative C was developed in response to this issue.

Indicators:

- Acres in semi-primitive non-motorized and primitive ROS settings within the District by Beartooth and Pryor Unit.
- Miles of non-motorized system trails within the District by Beartooth and Pryor Unit.

**Concern about opportunities for off-highway vehicle operation.** The use of unlicensed off-highway vehicles on roads is not consistent with State of Montana motor vehicle laws. Designating roads (as opposed to motorized mixed use roads or motorized trails) would limit opportunities for off-highway vehicle use. This issue was used in designing Alternatives A, B, and B Modified.

Indicators:

- Miles of mixed use system roads in the project area.
- Miles of motorized system trails in the project area.

**Concern about impacts on personal recreation experiences.** The interdisciplinary team and commenters recognized the potential for travel management changes to not only impact individual's personal experiences and connection to forest lands, but it also has the potential to increase or decrease conflict between forest users, particularly between motorized and non-motorized uses. The polarized nature of visitor preferences related to motorized vehicle use contributed to the development of Alternative B and Alternative B Modified as compromises between Alternative A and Alternative C which tend to favor one visitor preference over another.

**Concern about the impacts of noise from motorized recreation activities.** Commenters expressed concern about the potential increase of noise effects on non-motorized recreationist's experience due to the addition of motorized routes to the National Forest System.

Indicators:

- Acres in motorized and non-motorized ROS settings the District by Beartooth and Pryor Unit.

### 2.3.2 CULTURAL RESOURCES

**Concern about protection of archeological sites, traditional cultural properties and traditional practices.** Actions associated with designation, such as converting non-system routes to system routes, have the potential to adversely impact the scientific, traditional, cultural, and intrinsic values of archeological, cultural, and historic sites. In addition, proposed actions in the Pryor Unit could have an adverse effect to certain areas of traditional importance to the Crow Tribe. Components of Alternative B and Alternative B-Modified were developed in response to this issue.

Indicators:

- Number of sites potentially affected (directly and indirectly) on the District by Beartooth and Pryor Unit.
- Number of cultural landscapes potentially affected on the District by Beartooth and Pryor Unit.
- Number of traditional cultural properties potentially affected on the District by Beartooth and Pryor Unit.

## 2.4 OTHER ISSUES

The Council on Environmental Quality Regulations Implementing the National Environmental Policy Act states that agencies should discuss, “only briefly issues other than significant ones” (40 CFR 1500.4[c]). The following issues were determined to not be significant issues because they did not drive development of alternatives or major components of alternatives, there were no significant effects associated with the proposed actions, or both.

### 2.4.1 WATER QUALITY, FISHERIES, AND AQUATICS

The action of adding routes to the system has the potential to influence water quality indirectly through on-site erosion and sediment delivery to streams. Actions can also influence water quality and channel processes as a result of improper route location. Minor components of Alternative B and Alternative B Modified were developed in response to this issue.

Indicators:

- Miles of actions that reduce risks on moderate and high risk routes within the project area.
- Miles of actions that increase risks on moderate and high risk routes within the project area.
- Effects determinations for listed Forest Service sensitive species and other species of concern.

### 2.4.2 WILDLIFE

Human use associated with system and non-system road and trail designation has the potential to disturb wildlife through noise and visual effects. Human use can disrupt activities such as foraging habits, resting location selection and duration, nesting, and denning. In addition, changes in road densities can affect the quality of wildlife habitat. The Forest Service identified and analyzed the effects of travel management alternatives on federally threatened, Forest Service sensitive, big-game and other wildlife species and their habitat. Minor components of Alternatives B, B-Modified, and C were developed to respond to wildlife concerns.

Indicators:

- Effects determinations for federally listed threatened or endangered species, Forest Service sensitive species, Custer National Forest management indicator species, and other species of concern.
- Canada lynx – Motorized Route Density within Lynx Analysis Unit by Beartooth and Pryor Unit.
- Gray wolf – Changes in Motorized Route Density from No Action by Beartooth and Pryor Unit.

## **Chapter 2: Public Participation, Issues and Alternatives**

- Grizzly bear – Percent secure habitat available outside the primary conservation area
- Wolverine – Motorized Route Density and Acres of refugia on the Beartooth Unit.
- Elk – Motorized Route Density and Percent secure habitat within elk habitat on the District by Beartooth and Pryor Unit
- Bighorn sheep – Acres of escape terrain and Acres of winter range within and outside motorized route buffer within bighorn sheep habitat on the District.
- General wildlife – Percent of land unit that is core wildlife habitat based on motorized and non-motorized routes on the Beartooth and Pryor Unit.

### **2.4.3 SOILS**

Adding routes to the transportation system on high and medium risk soils could increase the potential to compact, displace, or erode soils such that there is a loss of soil productivity. Dispersed vehicle camping associated with system changes has the potential to disturb soil crusts. Further discussion is available in the Soils section of Chapter 3.

Indicator:

- Miles of motorized and non-motorized routes by high/very high and medium erosion hazard rating on the District by the Beartooth and Pryor Unit.

### **2.4.4 VEGETATION**

Concerns have been expressed about the effects of designating routes on native and rare vegetation found on the District. Designation of additional system roads and trails, along with the associated dispersed vehicle camping, has the potential to cause ground disturbance that could lead to noxious weed establishment and/or encouraging spreading. Further discussion is available in Vegetation section of Chapter 3.

Indicators:

- Acres and Percent of potential vegetation impacts by high risk category for motorized and non-motorized routes on the District by Beartooth and Pryor Unit.
- Weed susceptible Acres within designated road corridor within the project area.
- Total weed infested Acres within motorized route potentially affected corridor.
- Effects determinations for listed Forest Service sensitive species and other species of concern.

### **2.4.5 INVENTORIED ROADLESS AREAS**

Actions such as route designation and converting non-system routes to system roads within inventoried roadless areas have the potential to affect the character and resources in those areas. Further discussion is available in the Inventoried Roadless Area section of Chapter 3.

Indicators:

- Miles of non-system routes within inventoried roadless areas proposed to be converted to system routes.
- Miles of system routes within inventoried roadless areas.

## 2.4.6 *ECONOMICS*

Proposed changes in motorized and non-motorized recreation opportunities could reduce forest visitation, which could potentially diminish the economic contribution forest visitors make to communities in the vicinity of the District. This may also have an adverse impact on regional economies. Further discussion is available in the Economics section of Chapter 3.

Indicator:

- Estimated economic contribution of motorized and non-motorized recreation opportunities to local and regional economies.

## 2.4.7 *AIR QUALITY*

Encountering motorized use emissions and fugitive dust on Forest roads and trails could have an undesirable effect on the quality of a recreational experience. Odor generated by combustion engines, particularly two-cycle engines, can diminish a non-motorized users' quality of experience. Dust generated by vehicles or other uses, can diminish quality of experience for some recreationists. These effects are typically transitory in nature and not long lasting. There are typically good air dispersion characteristics and low inversion potential across the District. In addition, traffic is generally at lower speeds that result in less dust generation. Traffic is typically slower on Maintenance Level 2 roads, also known as high clearance vehicle roads and motorized trails, which are the majority of routes proposed for designation. For example, under the No Action Alternative, 70% (202 miles out of 286) are Maintenance Level 2 roads. These are also probably the routes with the most potential to have non-motorized use in the vicinity of them, since it is less likely for non-motorized users to be recreating on or along the higher speed Maintenance 3 and 4 roads.

There is concern that the addition of routes to the transportation system may lead to an adverse impact on air quality. Air quality across the District is considered good to excellent. All areas within and immediately adjacent to the District currently meet all state and federal air quality standards (Story, 2000; Story et. al., 2008; MTDEQ, 2005). The nearest area of non-attainment is Laurel, MT (approx. 30-50 miles N/NE) and concerns SO (2) levels. Implementation of any of the alternatives is expected to maintain air quality conditions due to 1) good dispersion characteristics across the District, 2) low inversion potential across the District, 3) low emissions from vehicles relative to other potential sources, and 4) reduced or equivalent route miles open to motorized vehicles under all alternatives compared to the existing condition. Compliance with State and Federal air quality standards would occur under all alternatives. Given this information, no further discussion of this issue is included in the FEIS.

## 2.5 **ALTERNATIVES CONSIDERED IN DETAIL**

In response to agency and public issues, four action alternatives were developed. Alternatives A, B, C, and B Modified were analyzed in detail along with the No Action Alternative. A general description of each of the alternatives is provided below.

Table 2-6 (found at the end of the chapter) summarizes important features and rationale for each of the alternatives. Detailed information on the alternatives is displayed on the comparison maps (see Map Package) and in the route specific tables provided in Appendix C.

## **Chapter 2: Public Participation, Issues and Alternatives**

Tables 2-7 through 2-10 (found at the end of the chapter) are intended to provide readers with comparative information about the alternatives that is not strictly focused on changes from no action. For the action alternatives, the figures in the tables represent the total miles available under each table category if that alternative is implemented. The figures used for the No Action Alternative represent the current miles for each of the categories listed.

### **2.5.1 ALTERNATIVE A**

Under this alternative, the recreation experience in slightly less than three-quarters of the Pryor Unit would have a motorized recreation experience emphasis based on Recreation Opportunity Spectrum criteria. OHV riders and drivers would find a diversity of terrain, as well as, quality of trails and roads to experience. OHV users would have multiple options for loop experiences, especially on Big Pryor Mountain. The primary use is expected to be families and groups out for day long rides of 20-60 miles, for sightseeing, picnicking, and non-technical riding. On weekends, riders could expect to encounter other groups of riders throughout the day. Hikers, bicyclists, and horseback riders using portions of the Pryor Unit, are likely to hear or see OHV's during portions of their travels.

Recreationists' experiences in the Beartooth Unit are not expected to be appreciably different than the No Action Alternative.

Alternative A would propose to designate public motorized use on the majority of routes (system and non-system) identified during the 1999-2000 inventory. The only roads that would not be designated for public motorized use under this alternative would be those identified for administrative uses, those that the Forest Service does not have a legal right-of-way for use, and one road that has revegetated and no longer exists (see Table 2-2 for more information on these).

This alternative approximates the existing condition (e.g. use of existing system and non-system routes). The majority of routes not included in this alternative (32 of 34 miles) represent routes for which the Forest Service has no legal right-of-way for public access (access is only via private lands). Technically, these routes are not currently part of the existing motorized network of routes available for legal public use.

This alternative largely reflects the motorized road and trail elements of an alternative submitted by the Custer Partnership, a coalition of area groups interested in this project, including Families for Outdoor Recreation, Treasure State ATV, and other individuals. Other elements in the group's proposal were not included in Alternative A because they were outside the scope of the analysis (e.g. construction) or were not consistent with guidance related to the 2005 Motorized Travel Rule (e.g. designation of roads with no legal right-of-way).

### **2.5.2 ALTERNATIVE B**

OHV recreationists would find multiple motorized loop opportunities in the Pryor Unit for year-round use under this alternative – approximately two-thirds of the unit would be in motorized settings. In addition, several seasonal, high-elevation loops would be available for their use during the June 15-April 15 season of use for the Pryor Unit. Vehicle operators would find many choices for day-long rides during the majority of the year that offer a diversity of terrain, but may find it slightly more difficult to find these opportunities from April 15-June 15.

Hikers and horseback riders would find large areas or “enclaves” in the Pryor Unit with very little motorized use, including portions of Big Pryor Mountain, Punchbowl, and Lost Water Canyon. These areas would expand dramatically in size during the time of year when motorized use is prohibited at higher elevations (April 15-June 15). Recreationists could expect to take day-long hikes or horseback rides without hearing or seeing OHVs during the April 15-June 15 period; but may have a little more difficulty finding this type of experience the remainder of the year.

Pack and saddle stock users could still expect to find many opportunities for riding and camping in the Beartooth Unit, and could expect to use the Meyers Creek and Lodgepole Creek areas without hearing or seeing motorized use.

Motorcyclists could expect to have opportunities to ride in both the Beartooth and Pryor units, but would not find opportunities for single track motorcycle experiences.

This alternative specifically addresses key resource concerns identified through internal and external scoping by not designating routes for public motorized use where concerns exist (see below). This alternative identifies slightly less motorized routes than no action for designation, but more than Alternative C.

The primary resource concerns that are addressed by this alternative include:

- In Alternative B, the Dryhead Vista Loop (Road #2308B) would not be designated for public motorized use or administrative use, and would be converted to a non-motorized system trail. Forest visitors would be able to access the vista through non-motorized means. This action is being proposed to minimize impacts to traditional cultural practices in the area that are easily disturbed by motorized vehicle access and/or vandalism.
- The 300 foot access to dispersed camping allowance would not apply to the Main Fork of Rock Creek (Road #2421). Dispersed vehicle camping would continue to be allowed, but measures would be used to limit the expansion of existing sites and the creation of new sites to minimize impacts on cultural and natural resources.
- Portions of routes where cultural resources are of concern were removed from designation consideration due to potential of continued site degradation and vandalism. (See route specific information in Appendix C.)
- Portions of routes where soil and water resources are of concern were removed from designation consideration due to unacceptable erosion with little opportunity for engineered drainage without extremely high investment. (See route specific information in Appendix C.)
- Meyers Creek (Trail #27) and Lodgepole (Trail #22) trails were proposed not to be designated for motorized travel in favor of non-motorized opportunities and wildlife habitat emphasis.
- Season of use designations on roads above approximately 8,000 feet elevation to minimize road and resource damage during spring breakup or thawing of frozen soils and snow melt.

## Chapter 2: Public Participation, Issues and Alternatives

### 2.5.3 ALTERNATIVE C

Under this alternative, the majority of the Pryor Unit would have larger areas or “enclaves” with very little motorized use. Approximately half of the unit would be in motorized settings and half in non-motorized settings. Recreationists could expect that some effort would be required to walk or ride to certain destinations – for example Bear Canyon, King Canyon, and the Punchbowl area – and certain activities, such as hunting, could be expected to require more effort to find game. There would be multiple opportunities to walk or ride a horse or mountain bike without seeing or hearing OHVs on adjacent ridges. You might encounter the occasional motorized vehicle being utilized for weed spraying or grazing permit administration on roads and trails identified for administrative uses.

Recreationists accustomed to dispersed vehicle camping would find less opportunities and fewer desirable sites for this activity since fewer motorized routes would be designated and access to dispersed vehicle camping sites within 300 feet of motorized routes would not be allowed under this alternative.

Pack and saddle stock users could still expect to find many opportunities for riding and camping in the Beartooth Unit, and could expect to use the Meyers Creek and Lodgepole Creek areas without hearing or seeing motorized use.

Motorcyclists could expect to have opportunities to ride in both the Beartooth and Pryor units, but would not find opportunities for single track motorcycle experiences.

The Pryor Unit portion of this alternative basically reflects the alternative proposed by the Pryors Coalition, a coalition of groups including the Eastern Wildlands Chapter of the Montana Wilderness Association, Yellowstone Valley Audubon Society, Our Montana, Inc., The Frontier Heritage Alliance, and Beartooth Back Country Horsemen. However, not every element of the proposal has been included in the alternative analyzed for this project. The primary difference is exclusion of the game retrieval season of use for Punchbowl Road (see Section 2.5.4 for more information).

### 2.5.4 NO ACTION ALTERNATIVE

The No Action Alternative consists of designation of the existing system roads<sup>1</sup> on the District. This is different from Alternative A (existing condition) which proposes to designate both existing system and non-system routes. This No Action Alternative largely reflects the set of system roads identified in the 1987 Travel Plan along with modifications that have been made to the system since 1987. The No Action Alternative also includes the existing vehicle types and seasons of use currently in force on the District (see Table 2-6 for details).

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<sup>1</sup> The decision to use existing system roads as the foundation for no action stems from 2005 Motorized Travel Rule guidance, including the following:

- The *Travel Management: Designated Routes and Areas for Motorized Use* guide prepared by the Forest Service to aid in implementing the 2005 Motorized Travel Rule affirms that the starting point for travel analyses is the current network of system roads.
- The *Motor Vehicle Route and Area Designation Guide* (version 111705) states, “There is no need to initiate a NEPA process to designate those NFS roads, NFS trails, and areas on NFS lands that are already managed for motor vehicle use where that use will continue unchanged, or to retain existing restrictions on motor vehicle use.”

Designation of the existing network of system roads would not require any further NEPA and represents the starting point for any proposed changes to the routes or areas available for public motorized use. Based on this information, no action was determined to be designation of the existing system roads and trails.

### **2.5.5 ALTERNATIVE B MODIFIED (PREFERRED ALTERNATIVE)**

Alternative B was modified in response to the public and internal comments to create Alternative B Modified. Alternative B Modified contains many of the same elements as Alternative B and would provide many of the same types of experiences. The elements of Alternative B Modified that are different from Alternative B described in the Table 2-5, and provided in further detail in Appendix C.

### **2.5.6 ELEMENTS COMMON TO ALL ALTERNATIVES**

#### **2.5.6.1 Public Safety**

The primary focus of public safety associated with route designation is related to mixing licensed and unlicensed vehicle use on District roads and trails. Commenters expressed an interest in having opportunities to operate unlicensed vehicles, while others have expressed safety concerns with permitting this activity. The 2005 Motorized Travel Rule lists public safety as one of the general criteria to be considered during the designation of roads, trails and areas. The Forest Service believes that both mixed motorized use roads and motorized trails are legitimate and appropriate uses of the national forests.

Public safety on Forest roads and trails depends on many factors including the condition of the facility, speed traveled, type of vehicles, human factors like driver expectations, and environmental factors such as weather, noise, and/or visual distractions. National Forest System roads are designed primarily for use by highway-legal vehicles (motor vehicles that are licensed or certified for general operation on public roads within the State) such as a passenger car or log truck. Motorized mixed use is defined as designation of a National Forest System road for use by both highway-legal and non-highway-legal motor vehicles. Currently all roads on the District require the use of highway-legal vehicles. No roads are currently designated as motorized mixed use.

Designating National Forest System roads for motorized mixed use involves safety and engineering considerations. A motorized mixed use analysis must be completed by a qualified engineer. The level of analysis is to be based on personal knowledge, expertise, and experience. During the analysis the engineer will review crash probability and crash severity. Routes designated as trails do not require a motorized mixed use analysis, only system roads proposed for mixed motorized use. An engineering analysis has been completed for the roads designated for motorized mixed use in the preferred alternative and is in the project record.

Designating system trails for motorized use does not require a motorized mixed use analysis. Trail characteristics, such as slower speeds than roads, generally mean that crash severity and crash frequency are lower than for roads. Although the District only has a limited number of motorized trails at this time, nationally the Forest Service estimates that it has 47,000 miles of motorized trails (Holtrop, 2008)

It should be noted that designation of roads or trails for motor vehicle use by a particular class of

## Chapter 2: Public Participation, Issues and Alternatives

vehicle under 36 CFR 212.51 should not be interpreted as encouraging or inviting use, or to imply that the road, trail, or area is passable, actively maintained, or safe for travel. Designation only indicates the types of vehicles that are permitted to be used on that route.

**Montana State Law.** The Forest Service defers to state laws in regard to operation of vehicles on roads and trails. State laws related to roads fall under: Montana Code Annotated, Title 61. Motor Vehicles. State laws related to trails fall under: Montana Code Annotated, Title 23 Parks, Recreation, Sports, and Gambling, Chapter 2 Recreation.

The Forest would not deviate from State of Montana motor vehicle law by proposing motorized mixed use on National Forest System roads and motorized trails.

To operate a motor vehicle (highway-legal) on National Forest System roads, the vehicle must be registered with a valid license plate and the operator must possess a State drivers licenses and when operating a motorcycle must have a “motorcycle endorsement” on the licenses.

Montana State Law does provide exemptions for use of non-highway-legal (off-highway aka unlicensed) vehicles on National Forest System roads if the forest has designated and approved that road for such use (i.e. designated for motorized mixed use). The exemptions allow the operator of a non-highway-legal vehicle to be *under 16 years of age but at least 12 years of age* if at the time of driving the vehicle the operator has in their *possession a certificate* showing the successful completion of an off-highway vehicle safety education course approved by the State of Montana Department of Fish, Wildlife, and Parks and is in the *physical presence of a person who possesses a drivers license*.

Montana State Law does not require that motor vehicles be licensed to operate on trails, but they are required to have an OHV sticker.

**Operator Responsibilities.** Operating a motor vehicle on National Forest System roads, National Forest System trails, and in areas on National Forest System lands carries a greater responsibility than operating that vehicle in a city or other developed setting. Not only must the motor vehicle operators know and follow all applicable traffic laws, but they need to show concern for the environment as well as other forest users. The misuse of motor vehicles can lead to the temporary or permanent closure of any designated road, trail, or area.

Users need to be aware of and comply with the following standard language found on the Motorized Vehicle Use Map per Forest Service policy: *“Operators of motor vehicles are subject to State traffic law, including State requirements for licensing, registration, and operation of the vehicle in question. Motor vehicle use, especially off-highway vehicle use, involves inherent risks that may cause property damage, serious injury, and possibly death to participants. Riders should drive cautiously and anticipate rough surfaces and features, such as snow, mud, vegetation, and water crossings common to remote driving conditions. Participants voluntarily assume full responsibility for these damages, risks, and dangers. Motor vehicle operators should take care at all times to protect themselves and those under their responsibility.”*

Much of the Custer National Forest is remote, and medical assistance may not be readily available. Cellular telephones do not work in many areas of the Custer National Forest. Operators should take adequate food, water, first aid supplies, and other equipment appropriate for the conditions and expected weather.

### 2.5.6.2 Implementation

In order to implement this project, the 2005 Motorized Travel Rule requires the Forest to make a free Motor Vehicle Use Map available to the public. The Forest also expects to install signs on all designated routes, undertake an estimated two year education campaign regarding new travel management direction and rules, and patrolling. These activities, other than publishing the MVUM, may vary in extent subject to the availability of funding.

Until the Record of Decision (ROD) for this project is implemented, the current decisions for the existing network of system roads and trails remain in effect. The ROD and its implementation will supercede the existing network of motorized system roads and trails when the Motor Vehicle Use Map is published and associated orders are in place. The ROD will supercede the current decisions for the existing network of non-motorized system trails when the resulting forest orders are issued for the associated non-motorized system trails. The forest order associated with the 1987 Travel Plan will be rescinded. Over-snow vehicle use would be permitted consistent with 1986 Forest Plan direction and existing NEPA decisions for prohibitions; a forest order would be used to enforce these prohibitions.

Sign purchase and installation is a one time cost, but the remaining costs such as patrolling and Motor Vehicle Use Map generation would be incurred annually. Annual funding levels may vary.

### 2.5.6.3 Enforcement

Public comment related to law enforcement issues focused on enforcing regulations, providing more law enforcement presence and providing the public with signing and education. These comments tended to concentrate on motorized activities on the forest, and were raised by both motorized and non-motorized recreationists. A number of comments highlighted impacts associated with the lack of enforcement, such as resource damage and diminished recreation experience for other forest visitors. Some comments suggested that there was a need for additional law enforcement personnel to handle the increase of motorized use on the forest.

## Background

*1987 Beartooth Travel Management Plan.* A comprehensive travel plan for the Beartooth Ranger District was completed in 1987. Procedural concerns related to implementation of the plan have limited its enforcement. These issues have caused law enforcement officials to be reluctant to issue citations related to the restrictions and closures identified in the plan, because the procedural issues make it unlikely that the magistrate will uphold the charges.

*2005 Motorized Travel Management Rule.* Until recently, travel restrictions could only be enacted through two means on National Forests: the 36 Code of Federal Regulations (CFR) 261 Subpart A (restrictions or general prohibitions), and the 36 CFR 261 Subpart B (prohibitions that are created through special order).

The Subpart A prohibitions that apply to the use of roads and trails have historically dealt primarily with violations of applicable state laws that regulate licensing, noise, safe operation of vehicles, damaging roads or trails, interfering with road or trail use, under the influence of alcohol or drugs, careless or reckless operation or in a manner in which damages resources or wildlife (36 CFR

## Chapter 2: Public Participation, Issues and Alternatives

262.12[a.]-[d.] and 36 CFR 261.13 [a.]-[i.]). These general prohibitions of the CFRs are considered “strict liability” prohibitions. This means that it is the user’s responsibility to know and adhere to these regulations without any additional notification or posting on the part of the agency. Recent changes to CFR regulations have added off-route motor vehicle travel to the Subpart A restrictions. (See further discussion below on this subject.)

Most travel restrictions that historically prohibited some sort of travel on National Forest were implemented through the 36 CFR subpart B authority for special orders, specifically 36 CFR 261.53 (special closures), 36 CFR 261.54 (use of Forest development roads), 36 CFR 261.55 (use of Forest development trails), and 36 CFR 261.56 (use of vehicles off Forest development roads). These specific sections of the CFRs permit the agency to prohibit certain uses of roads and trails to limit use to specific vehicle types and to prohibit off road travel.

The situation that especially hampers enforcement of these special order restrictions is the 36 CFR 261.51 (a) and (b) requirement for posting of these prohibitions. 36 CFR 261.51 (a) states, “Placing a copy of the order imposing each prohibition in the Offices of the Forest Supervisor and District Ranger, or equivalent Officer who has jurisdiction over the lands affected by the order AND (emphasis added),” 36 CFR 261.51 (b) states, “Displaying each prohibition imposed by an order in such locations and manner as to reasonably bring the prohibition to the attention of the public.” The latter requirement becomes very problematic when attempting to post area closure or trail restrictions on the ground across large areas. The simple issue is that without adequate posting on the ground, special order restrictions are less enforceable. Lack of maintenance and vandalism of posted prohibition signing creates ongoing issues, and has the effect of negating or jeopardizing the effectiveness of special order closures.

In 2005, the Motorized Travel Rule changed the legal authority for regulating off-route travel of motor vehicles. The final rule modified regulations in 36 CFR 295 which historically governed the management of OHVs on National Forests. In addition, the rule changed the enforcement authority for motor vehicle restrictions from 36 CFR 261 Subpart B: Special Orders to the Subpart A: General Prohibitions section, making motor vehicle violations in the future a strict liability infraction. This change relieves the Agency of the posting and signing requirements of 36 CFR 261 Subpart B and authorizes map notification to be the enforcement tool in the future. The decision mandates that Districts and administrative units complete a travel management review with public involvement to designate motorized roads, trails, and areas and produce Motor Vehicle Use Map that identifies these designations (36 CFR 212.56). Once this is completed, travel management restrictions may be enforced under Subpart A without being required to post and maintain prohibition signs in the field.

The Forest Service’s Washington Office has established the format and the majority of the text that will appear on all MVUM maps prepared by the Forest Service. The text on these maps will include standardized information on the purpose and content of the map as well as a statement about motorized vehicle operator’s responsibilities and fines. The text states, “It is prohibited to possess or operate a motor vehicle on National Forest System lands on the Beartooth Ranger District other than in accordance with these designations (36 CFR 261.13). Violations of 36 CFR 261.13 are subject to a fine of up to \$5,000 or imprisonment for up to 6 months or both (18 U.S.C. 3571(e)).”.

*Staffing.* There is one full-time Law Enforcement Officer (LEO) stationed on the Custer National Forest. The District also has five permanent staff trained as Forest Protection Officers (FPO) and typically employs five to ten summer seasonals with FPO training. FPOs have limited law enforcement authority and responsibilities compared to LEOs, but are capable of issuing citations for

travel management violations associated with the prohibition created under the 2005 Motorized Travel Rule and found at 36 CFR 261.13. Increasing the number of LEOs or FPOs is primarily a function of Forest and District budget and priorities. Changes in the budget to facilitate increases in law enforcement capability can be accomplished through changes in allocations within Forest and District budgets, securing additional budget funding from within the Northern Region, or supplementing budgets with grants and similar funds. Based on past practices, additional funding would most likely be used to hire additional seasonal FPOs, rather than full-time FPOs or LEOs.

Changes in Forest priorities to increase law enforcement capability would most likely occur through two options. First, the Forest can determine which programs, such as developed recreation, travel management enforcement, wildlife, etc., should be emphasized and allocate the funds to accomplish objectives related to those priorities. Another method is to prioritize the work of existing permanent and seasonal employees so that more than the current number of staff have the training and supervisory support to enforce violations of travel management decisions.

### **Post-MVUM Enforcement**

This analysis will fulfill the 2005 Motorized Travel Rule requirements of review and public involvement for each of the action alternatives and no action. Upon publishing the MVUM for the selected alternative, the new 2005 Motorized Travel Rule regulations will become enforceable on the District (36 CFR 261.13). The MVUM would display those routes open to motorized travel by the public, along with the types of vehicles and seasons of use. The District intends to post route number signs on the open routes to correspond with numbers shown on the MVUM. These actions are expected to greatly enhance the ability to enforce travel management decisions. The regulatory requirements for posting prohibitions will no longer be applicable, and the problems associated with implementing and maintaining extensive prohibition posting will be eliminated. Hard-copy and electronic versions of the MVUM will be available to forest users and will identify those roads and trails available for motorized use by the public. This is expected to reduce confusion about where motorized vehicle use is legal. In addition, LEOs and FPOs will have clear authority for issuing citations for violations of motorized travel management decisions.

Although new travel restrictions may be less complex, the changes would require a period of adjustment for Forest visitors. Inadvertent violation of new travel restrictions is expected initially, but is also expected to diminish over the first several years after implementation. Enforcement of new travel restrictions would require additional emphasis by the Custer National Forest, with assistance from Montana Fish, Wildlife and Parks, and the public.

Having a clear, enforceable travel plan will facilitate being able to involve groups and individuals that have expressed interest in assisting the District with volunteer “patrols” to provide an additional presence in-the-field. Volunteers can provide District visitors with information about legal motorized use, avoiding activities that have adverse impacts on natural and cultural resources, and report violations when they are observed.

#### **2.5.6.4 Maintenance**

Commenters indicated concerns that adding system roads and trails could increase the need for maintenance. The 2005 Motorized Travel Rule also includes a criterion related to maintenance needs that must be considered. This section is intended to address that criterion by considering the maintenance of motorized routes in this section.

## Chapter 2: Public Participation, Issues and Alternatives

The Forest is required to maintain National Forest System roads in a condition to safely accommodate intended use in accordance with the maintenance objective for that road. Trail maintenance is intended to preserve the trail and related facilities to meet established objectives for that trail. Road Maintenance guidelines are prescribed in Forest Service Handbook 7709.58 Transportation System Maintenance Handbook and Forest Service Manual 7700 -Transportation System, Chapter 7730 – Operation and Maintenance. Trail Maintenance guidelines are prescribed in Forest Service Handbook 2309.18 Trails Management Handbook and Forest Service Manual 2300 – Recreation, Wilderness, and Related Resource Management, Chapter 2350 – Trail, River, and Similar Recreation Opportunities. The Forest’s road and trail activities are conducted in compliance with these directives.

It is important to note that the original proposed action cited reduction of maintenance costs as rationale for not designating some roads. This criterion was not used in the re-evaluation of roads and trails for the proposed action or development of the action alternatives in the DEIS or FEIS. Funding for road and trail maintenance varies from year to year and was determined to not be a suitable filter for determining routes that should or shouldn’t be designated for public motorized use.

### Maintenance Funding

Based on past funding levels, the Forest is unlikely to have sufficient funding to maintain to standard all of the routes necessary for the administration, utilization, and protection of the District for the foreseeable future. As a result, the Forest prioritizes maintenance work and routinely applies for additional/supplemental funding to increase the number of miles of road and trail maintenance completed.

Road and trail maintenance funding can only be applied to system roads and trails. Maintenance does not occur on every mile of road or trail every year. As mentioned above, maintenance is prioritized across the Forest and accomplished based on the funding received. Over the past 6 years, the Forest annual road maintenance accomplishment ranges any where from 0 to 11% of maintenance level 2 roads, 10 to 57% of maintenance level 3, and 0 to 40% of maintenance level 4 roads on the District. The following table displays the miles of road receiving annual maintenance on the District for the past 6 years.

**Table 2-3. Summary of Road Miles Receiving Annual Maintenance<sup>2</sup> by Maintenance Level.**

Beartooth District	Fiscal Year (October 1 – September 30)					
	2001	2002	2003	2004	2005	2006
2 - High Clearance Vehicles	-	-	-	1	21	11
3 - Suitable For Passenger Cars	6	35	22	15	20	24
4 - Moderate Degree Of User Comfort	-	6	2	-	5	1

### 2.5.6.5 Administrative Exemptions

Exemptions to off road travel as described in 36 CFR 212.51(a) would be allowed. Exemptions include administrative activities such as law enforcement, fire, emergencies, military operations,

<sup>2</sup> Based on data specific to maintenance costs that were readily available.

noxious weed control, certain special use permit provisions, and other official business purposes. All such use would require specific authorization from the appropriate Line Officer, detailing when, where, who, and under what circumstances motorized travel would be allowed.

#### **2.5.6.6 Forest Plan Amendment**

All action alternatives would involve deleting existing Forest Plan direction regarding site-specific route management (see Appendix B for details). This has been determined to be a minor amendment that will not require Regional Forester approval. Once the Record of Decision is issued, an amendment to the Forest Plan will be executed that reflects deletion of the language identified in Appendix B.

#### **2.5.6.7 Administrative Sites**

System roads associated with administrative sites will not be designated for public motorized use, except those roads that provide access to visitor services.

#### **2.5.6.8 System Roads with Forest Service Maintenance Obligations**

System roads that the FS has a legal obligation to maintain will not be removed from the system, but may or may not be designated for public motorized use.

#### **2.5.6.9 Roads Under Permit**

In instances of special use permits for ingress/egress to private inholdings, a road will generally be designated for public motorized use when the Forest Service has road maintenance responsibilities. In instances of road use permits, a road may be closed to public use when the permit holder is assigned road maintenance responsibilities.

#### **2.5.6.10 No Legal Right-of-Way**

Routes that the Forest Service has no legal right-of-way to access will not be designated for public motorized use.

#### **2.5.6.11 Season of Use Flexibility**

There is a range of potential season of use designations; those proposed were selected based on protecting resource values at risk, which may vary by locale but include values such as soils, hydrology, and wildlife. If conditions warrant, there may be flexibility to extend or reduce the season.

#### **2.5.6.12 Designated Routes Required to be Part of the National Forest System**

In accordance with the 2005 Motorized Travel Rule, only system routes can be designated for public motorized use. If motorized routes that are currently non-system roads are desired for motorized use, an action is required to add them to National Forest transportation system.

**2.5.6.13 Dispersed Vehicle Camping Authorized Only Authorized on National Forest System Lands**

Under Alternatives that allow access for dispersed vehicle camping within 300 feet of a motorized route, access is only authorized on NFS lands, not on private, state, or other federal lands that may be within 300 feet of designated routes.

**2.6 ALTERNATIVES CONSIDERED BUT DROPPED FROM DETAILED ANALYSIS**

Federal agencies are required by NEPA to rigorously explore and objectively evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.14). Public comments received in response to the Proposed Action provided suggestions for alternative methods for achieving the purpose and need. Some of these alternatives may have been outside the scope of travel management, duplicative of the alternatives considered in detail, incorporated into alternatives considered in detail, determined to be components that would cause unnecessary environmental harm, or area already addressed by law, regulation or policy. Therefore, a number of alternatives were considered, but dismissed from detailed consideration for the reasons summarized below.

**2.6.1 LAND ZONING**

The public proposed concepts for zoning motorized and non-motorized use on the Beartooth Ranger District to reduce user conflicts. One proposal suggested designating the area south (East) of Highway 212 for motorized use and designating the area north (West) of Highway 212 for non-motorized use. Other proposals suggested identifying Riding and Hiking areas, “quiet areas”, or non-motorized enclaves in the Pryor Unit.

Zoning areas by type of use or similar management prescription is more appropriate for land management planning. This analysis is largely focused on the designation and use of routes (roads and trails), rather than prescriptive land use direction that would require a significant amendment of current Forest Plan land use direction which is beyond the scope of this analysis.

**2.6.2 ROUTE CONSTRUCTION**

There were public comments that suggested construction of various routes throughout the District. In addition, the Forest Service sought information from the public during the collaborative meetings associated with this project on potential route development for loops or other recreation opportunities. The collaborative meetings attendees did not reach agreement on any specific routes that would involve construction. However, individuals at the meetings did identify potential routes for construction.

In the spring of 2007, the Responsible Official, in consultation with the Beartooth District Ranger and the interdisciplinary team leader, determined that the scope of the proposal should be limited to road and trail designation of existing routes. Route construction, along with other potential alternative elements such as motorized over-snow use, was reviewed and not included in the proposal in an effort to keep the scope of the project appropriate for the agreed to timeframe for completion of the project. As a result, construction of new routes (motorized and non-motorized) is outside the scope of this

proposal. However, the District is interested in considering new routes that may provide or improve recreation opportunities. If any such proposals for new route construction are pursued they would be addressed through separate analysis.

### **2.6.3 GAME RETRIEVAL “SEASON OF USE” ON PUNCHBOWL ROAD**

A suggestion was made to allow game retrieval midday in the Punchbowl area using Punchbowl Road (Road #2144). This proposal suggested not designating the Punchbowl Road for public motorized use except for mid-afternoon access during hunting season. Cross-country game retrieval was not proposed, only the use of the road for game retrieval. The interdisciplinary team considered this proposal, but determined, in consultation with the Responsible Official, that this would be difficult to enforce without committing substantial resources to the site (staffing, gates, etc.). This was not desirable given the limited staff available for this type of work during hunting seasons. (Seasonal personnel are typically laid-off in early September due to funding; typically only limited numbers of permanent staff are available during fall hunting seasons.)

### **2.6.4 CONVERT SINGLE TRACK NON-MOTORIZED TRAILS TO MOTORCYCLE TRAILS**

Commenters suggested that all non-motorized trails outside of Wilderness or recommended wilderness should also be designated for motorcycle use. The District reviewed all of these routes and determined that none of them were suitable from a management perspective for this designation (see Project Record). The management concerns with designating these routes for motorcycle use varied by route, but included such concerns as:

- Inconsistent with the Forest Plan direction;
- Increased potential for inadvertent Wilderness motorized intrusions on trails that lead to Wilderness;
- Would conflict with an existing Forest Order prohibiting motorized use;
- Inconsistent with intended and/or current management of the trail;
- The route led into a developed site under special use permit;
- The route is National Recreation Trail identified for non-motorized use.

### **2.6.5 ROADS ANALYSIS UNDER FOREST SERVICE PUBLICATION FS-643**

One commenter suggested that direction in Forest Service publication FS-643 Roads Analysis should be used to develop alternatives. The Custer completed a Roads Analysis report in 2004 consistent with FS-643 Roads Analysis. During the course of this project, the 2005 Motorized Travel Rule replaced the direction in FS-643 Roads Analysis. The direction provided in the 2005 Motorized Travel Rule was used to develop the range of alternatives. In addition, information from the 2004 Roads Analysis was considered during development of this project.

### **2.6.6 CONVERT ALL ROADS TO MIXED MOTORIZED USE ROADS OR TRAILS OPEN TO ALL VEHICLES**

There were suggestions that all roads and trails should be open to all motor vehicles, highway legal and unlicensed vehicles. Not all roads are suitable for motorized mixed use. Higher standard roads, such as Maintenance Level 3 and 4 roads are designed for and accommodate higher speed traffic. Encouraging and/or permitting unlicensed vehicle use on these routes is not appropriate given the potential for increased crash severity and crash probability.

Motorized trails designated for motorcycle or vehicles less than 50 inches simply are typically not able to accommodate full-size vehicles due to their narrow tread width. The District currently has less than nine miles of these routes.

**2.6.7 DO NOT ADD ANY NON-SYSTEM ROUTES TO THE SYSTEM**

Some commenters suggested that an alternative where no non-system routes are added to the system should be considered. This is identical to the No Action Alternative. This alternative does not meet the purpose and need for this project.

**2.6.8 MONTANA WILDERNESS ASSOCIATION/PRYORS COALITION VISION ALTERNATIVE**

The Montana Wilderness Association (MWA) and later the Pryors Coalition submitted an initial and then a revised alternative. This alternative focuses on the Pryor Unit. This alternative was not used as proposed because, both versions of this alternative included elements that were outside the scope of the analysis (land zoning – see section 2.6.1) and did not include routes necessary for the administration of the District. Alternative C is very similar to the alternative proposed by MWA and the Pryors Coalition, but provides for additional administrative needs, especially motorized access to range improvements, and does not include land zoning.

**2.6.9 CUSTER PARTNERSHIP**

The Custer Partnership proposed an extensive alternative. This alternative included several elements that were outside the scope of this analysis, such as road and trail construction. It also included undeveloped elements such as locating cross-country motorized use areas in the Pryors, but without specific locations for these areas. Alternative A was developed in part to reflect the alternative proposed by the Custer Partnership, by proposing to designate the majority of the existing motorized routes on the District.

**2.6.10 SOIL UNITS**

A commenter suggested that the Forest Service should consider an alternative that only designated routes on low hazard soils. This is not a viable alternative. There are many types of soils on the District. Any given road may easily transect dozens of different types of soils with various soil hazard ratings. It would be impossible to design an alternative, using existing routes, which provided the administrative, utilization, and protection needs of the District and avoided all soils with moderate and high hazard ratings.

**2.6.11 WILDLIFE ROAD DENSITY**

One commenter suggested developing an alternative that specifically addressed the road density criteria. The suggestion was to develop an alternative that would close a reasonable number of routes during hunting season and other critical seasons and then open them during the summer recreation season. This was intended to avoid complete closure of routes in response to road density concerns. Road density was not used as a criterion for determining if specific routes should not be designated. It was only used as an indicator to determine effects. Road density was not considered a significant

issue and therefore developing an alternative to specifically address road density was not determined to be warranted. There are elements within the range of alternatives that are aimed at addressing specific wildlife concerns, such as the season of use on the Meyers Creek and Lodgepole Creek trails to address big game winter range and moose calving concerns but permit summer season motorcycle use of the trails.

## 2.7 COMPARISON OF EFFECTS

Table 2-11 and 2-12 (found at the end of the chapter) provides a summary of the effects of implementing each alternative. Information in the Table 2-11 is focused on activities and effects where different levels of effects or outputs can be distinguished quantitatively or qualitatively among alternatives. Table 2-12 provides a summary of changes in effects of implementing each action alternative compared to the no action alternative. Detail effects analysis for each Alternative is found in Chapter 3.

## 2.8 MONITORING

The designations identified on the motor vehicle use map are subject to revision. Information collected through monitoring and through public user groups and individuals will be used in evaluating and revising travel management decisions.

The goal of travel management monitoring is to determine how well travel management is working and what is not working, and to help identify what changes are needed in travel management or monitoring methods. Monitoring and evaluation tell how travel management decisions have been implemented and how effective the implementation has proven to be in accomplishing the desired outcomes.

The travel management monitoring plan will be tiered to Forest Plan monitoring activities, and that each year's monitoring plan will be adapted as needed based on changing needs, findings, and budget levels. The results of the monitoring plan will be evaluated annually, and based on the findings, potential solutions will be developed and adjustments to the motorized use map may be made.

Implementation monitoring will be based on compliance with the Travel Management decision. Effectiveness monitoring may be conducted by sampling a range of projects from the entire Beartooth Ranger District as outlined in the Forest Plan monitoring section. The Forest will utilize an adaptive monitoring plan to allow flexibility for changing budgets and staff levels and for monitoring results. The following table outlines Forest Plan criteria for evaluating the effects of effects of off-road vehicle use and damage.

**Table 2-4. Forest Plan Monitoring Items Relevant for Travel Management**

Monitoring Item	Data Source	Monitoring Objective	Variability Which Would Initiate Further Evaluation	Corrective Measures
Off-road-vehicle use and damage and Travel Plan effectiveness. (A-3).	Travel Plan (violation and incident reports, number of variances granted).	To determine compliance with travel plan direction (and, therefore, effectiveness in achieving resource protection objectives). To assist in determination of effectiveness of restriction methods, public understanding of travel plan direction.	Conflicts with Forest Management Area goals.	Review situation for change in implementation techniques such as signing, barriers, public contacts, etc.

If, based on monitoring pursuant to 36 CFR 212.57, the Forest Supervisor or other responsible official determines that motor vehicle use on a National Forest System road or National Forest System trail or in an area on National Forest System lands is causing or will cause considerable adverse effects on public safety or soil, vegetation, wildlife, wildlife habitat, or cultural or historic resources associated with that road, trail, or area, the Forest Supervisor or other responsible official shall immediately close that road, trail, or area to motor vehicle use until the official determines that such adverse effects have been mitigated or eliminated and that measures have been implemented to prevent future recurrence.

## 2.9 FOREST SERVICE PREFERRED ALTERNATIVE

The Forest Service preferred alternative is Alternative B Modified. Alternative B Modified is the “preferred” alternative based on Responsible Official and interdisciplinary team deliberations. This alternative provides the road system necessary for the administration, utilization, and administration of the District. It also appears to respond best to the significant issue of recreation conflicts by providing a compromise between motorized and non-motorized recreation preferences, while reducing the overall environmental and cultural resource impacts of system roads and trails.

The Responsible Official (the Custer Forest Supervisor) may select any combination of travel management actions as presented and analyzed within this document.

**Table 2-5. Alternative B Modified Elements Different From Alternative B and Rationale for Modification.**

Alternative B Modified	Alternative B	Rationale for Modification
Meyers Creek (Trail #27) and Lodgepole (Trail #22) trails would be designated as motorcycle trails with a season of use of June 15 to December 1.	Meyers Creek and Lodgepole trails would be converted from motorcycle trails to non-motorized trails.	In response to public comment, these trails are proposed to remain motorcycle trails in order to continue to provide this opportunity on the District. The season of use is to address concerns about disturbance to moose calving and mule deer winter range, and would have the additional benefit of providing spring and early summer season, low elevation non-motorized trail opportunities.
A 2.2 mile section of Shriver Peak Road (#2088) west of Crater Ice Cave and east of its junction with 2095A would not be designated for public motorized use (see Alternative B Modified map).	The entire length of Shriver Peak Road would be designated for public motorized use.	This action is intended to reduce potential for impacts on cultural resources and traditional cultural practices, and in response to public comment would provide additional area for non-motorized recreation opportunities.
<p>The season of use dates for the following routes in the Pryors would be adjusted to 5/22 to 4/15:</p> <ul style="list-style-type: none"> <li>• Roads and motorized trails on Big Pryor Mountain previously identified with a season of use of 6/15 to 4/1.</li> <li>• Pryor Mountain Road (#2038) from the junction with Crooked Creek Road to the Dryhead Vista.</li> <li>• Commissary Ridge Road (#2092).</li> <li>• Island Ridge Road (#2093).</li> </ul>	These routes would have a season of use of 6/15 to 4/15.	The change reflects more accurate information used to develop the dates and due to the fact that these routes area generally located in lands with a southern aspect that result in more rapid snowmelt and soil drying.
The eastern most approximate ½ mile of Punch Bowl Road (#2144) would be designated for vehicles less than 50 inches in width contingent upon the completion of trail maintenance work necessary to alleviate soils and water resource concerns with that section of trail.	Route would not be designated for public motorized use.	This change is being proposed in response to public comment and for the following reasons: Route was not proposed to be designated in Alt. B because of costly mitigation necessary to correct resource issues. If these resource issues are addressed, no other issues were identified that would prevent designation.
Road #21415 would be converted from non-system to system road, and identified for administrative use only.	Route would be identified for non-motorized trail use.	This route would be designated in response to coordination efforts with the State of Montana Department of Natural Resources and Conservation to provide motorized access to state lands.
Graham Trail (#2013) would be designated as a trail open to all OHVs.	Road would not be designated for public motorized use.	Commenters indicated this route was in better condition and preferable to other routes in the vicinity.
Piney Creek (#2012) east of the quarry would not be designated for public motorized use.	Road would be designated for public motorized use.	This route would be dropped in response to designating the adjacent Graham Trail. These two changes would keep the overall number of routes the same as Alternative B, consolidate designated routes into a more confined corridor, and increase the size of a consolidated defacto non-motorized area.

**Table 2-5. Alternative B Modified Elements Different From Alternative B and Rationale for Modification.**

Alternative B Modified	Alternative B	Rationale for Modification
The southern ¾ mile of Commissary Ridge (#2092) would be designated for public motorized use.	Portion of road would not be designated.	This change is being proposed in response to public comment and because there are no identified resource concerns with designating the route.
The first ½ mile of Roberts Bench (#20972) beginning at the junction with Punch Bowl Road (#2144) would be designated for public motorized mixed use, but the remainder of the route would not be designated.	Entire route would be designated for motorized use.	Fence was constructed across the route in the past preventing motorized use of the full route, which also reduces concerns about potential impacts to heritage resources beyond the fence line.
Picket Pin Sawmill Roads #21401A and #21401B would not be designated for public motorized use.	These two routes would be designated for public motorized use.	Not designating these routes will help reduce the routes impact on water quality. This issue was highlighted by commenters.
Road #241412 would not be designated for public motorized use.	This route would be designated for public motorized use.	Not designating this route will help reduce the routes impact on water quality. This issue was highlighted by commenters.
Picket Pin Spur #21407 would be designated for public motorized use contingent upon the completion of road maintenance work necessary to alleviate water resource concerns associated with the route.	This route would be designated for public motorized use.	Not designating this route until mitigation is completed will help reduce the routes impact on water quality. This issue was highlighted by commenters.
The season of use for Picket Pin Road (#2140) would be yearlong.	Season of use would be July 16 to March 31 to be consistent with Gallatin National Forest.	The need for a season of use on Picket Pin Road is on the Gallatin National Forest. There are no resource concerns that necessitate a season of use on the Custer National Forest’s portion of Picket Pin Road.
No pack and saddle stock restrictions are proposed for the Lake Fork, Lost Lake, Lake Mary, Keyser Brown, or Crow Lake trails.	Pack and saddle stock restrictions are proposed for the Lake Fork, Lost Lake, Lake Mary, Keyser Brown, or Crow Lake trails.	In response to public input, the Forest determined that resource issues may be more effectively and appropriately addressed through site-specific Forest Order closures, additional Wilderness management planning, and/or other mechanisms.
Nichols Creek (#2478) would be identified as administrative use only.	Nichols Creek would not be designated and would be identified as a ML 1 system road.	The District has identified administrative needs for this route.
The following roads in the vicinity of the upper end of the Benbow and Stillwater Plateau Trailhead areas would be designated for public motorized use contingent upon obtaining a legal right-of-way to access them. Benbow (#2414) (.08 miles) Benbow-Stillwater Road (#2014) #20142 The Golf Course (#20144) Stillwater Plateau Trailhead (#20144B)	Roads would be designated for public motorized use.	There is no legal right-of-way to the identified roads. However, it is desirable to obtain a right-of-way to provide access Stillwater Plateau Trailhead.

**Table 2-5. Alternative B Modified Elements Different From Alternative B and Rationale for Modification.**

Alternative B Modified	Alternative B	Rationale for Modification																
<p>The following routes in Tie Flats, Beaverslide, and Punchbowl areas would be designated for public motorized mixed use (see Alternative B-Modified map):</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">#2097A-Guard Station Green Cabin</td> <td style="width: 50%;">#2097-Beaverslide</td> </tr> <tr> <td>#2144-Sage Creek Road (4 mile section)</td> <td>#20972-Roberts Bench</td> </tr> <tr> <td>#2073-Stephens Draw (2 mile section)</td> <td>#2104-Tie Flats</td> </tr> <tr> <td>#2073H</td> <td>#2104A</td> </tr> <tr> <td>#2085-Crooked Creek Road (1.24 mile section)</td> <td>#2002</td> </tr> <tr> <td>#2308-Pryor Mountain Road (0.84 mile section)</td> <td>#2002A</td> </tr> <tr> <td>#2308C</td> <td>#2002A1</td> </tr> <tr> <td>#230811</td> <td></td> </tr> </table>	#2097A-Guard Station Green Cabin	#2097-Beaverslide	#2144-Sage Creek Road (4 mile section)	#20972-Roberts Bench	#2073-Stephens Draw (2 mile section)	#2104-Tie Flats	#2073H	#2104A	#2085-Crooked Creek Road (1.24 mile section)	#2002	#2308-Pryor Mountain Road (0.84 mile section)	#2002A	#2308C	#2002A1	#230811		<p>The subject routes would be designated for highway legal vehicles.</p>	<p>In response to public comment, these routes would be changed from a highway legal vehicle designation to mixed motorized use to provide additional motorized recreation opportunities. A few of the listed routes are improved roads and lend themselves to a mixed motorized use designation than a motorized trail designation. Therefore, this network is proposed to for mixed motorized use designation.</p>
#2097A-Guard Station Green Cabin	#2097-Beaverslide																	
#2144-Sage Creek Road (4 mile section)	#20972-Roberts Bench																	
#2073-Stephens Draw (2 mile section)	#2104-Tie Flats																	
#2073H	#2104A																	
#2085-Crooked Creek Road (1.24 mile section)	#2002																	
#2308-Pryor Mountain Road (0.84 mile section)	#2002A																	
#2308C	#2002A1																	
#230811																		
<p>The Burnt Timber Road (#2849) would be designated for motorized mixed use.</p>	<p>Burnt Timber Road would be designated for highway legal vehicles.</p>	<p>This route would be designated as mixed motorized use to provide consistency where the route connects to BLM routes.</p>																
<p>A 1.24 mile section of Crooked Creek Road (#2085) (see Alternative B-Modified map) would be designated for motorized mixed use.</p>	<p>The subject portion of Crooked Creek Road would be designated for highway legal vehicles.</p>	<p>This segment of Crooked Creek Road would be designated as mixed motorized use to provide a loop opportunity for unlicensed vehicles using the proposed #2096 motorized trail. Unlicensed vehicles would be able to travel south on Crooked Creek Road to BLM land where there would be multiple opportunities for loops.</p>																
<p>The Benbow Jeep Trail (#2415) would be designated for motorized mixed use.</p>	<p>Benbow Jeep Trail would be designated for highway legal vehicles.</p>	<p>In response to public comment, this route would be changed from a highway legal vehicle designation to mixed motorized use to provide an additional motorized recreation opportunity.</p>																

**Table 2–6. Summary of Elements for Each Alternative**

Element	Alternative A (Existing Condition)	Alternative B	Alternative C	No Action Alternative	Alternative B Modified (Preferred Alternative)
<b>Administrative Use</b>	Roads identified for administrative use are not designated for public motorized use to protect the public from hazardous situations, protect facilities and/or materials, or due to permit terms and conditions. Examples of these types of administrative routes include certain system roads within the Rock Creek Work Center, Red Lodge Ski Area, Lions Camp, and some areas with active mining. Appendix C includes all non-system roads that would be converted to system roads and identified for administrative use. Existing administrative use system roads area not proposed to be changed.	Same as Alternative A.	Same rationale as Alternative A.  This alternative contains the largest number of administrative roads. This is because several roads that were not proposed to be designated for public use were identified as needed for administrative use.	Existing roads identified for administrative use.	Same as Alternative A.
<b>Legal Access</b>	The Motor Vehicle Route and Area Designation Guide states that designation for public motorized use should be avoided in instances where the Forest Service does not have legal access. This guidance was applied to all instances where the situation occurred in this alternative, with one notable exception. The Stillwater Plateau Trailhead, a Forest Service developed trailhead,	Same as Alternative A.	Same as Alternative A	System roads that the Forest Service does not have legal access to use will be included in this alternative, unlike the action alternatives. This is because not designating these system roads would constitute an action, which would be inconsistent within the context of this No Action Alternative.	The Motor Vehicle Route and Area Designation Guide states that designation for public motorized use should be avoided in instances where the Forest Service does not have legal access. This guidance was applied to all instances where the situation occurred in this alternative.

**Table 2–6. Summary of Elements for Each Alternative**

Element	Alternative A (Existing Condition)	Alternative B	Alternative C	No Action Alternative	Alternative B Modified (Preferred Alternative)
	<p>can only be accessed by crossing private land for which the Forest Service does not have a right-of-way to cross. The Forest Service has pursued a right-of-way, but the landowner has not been interested in granting an easement. However, the landowner has been willing to continue to allow public use of the existing road that accesses the trailhead. Given the circumstances, the District has determined that in this situation the Forest Service portions of the road accessing the trailhead should be designated so that the public may continue to access the trailhead.</p>				
<p><b>Pack and Saddle Stock Use</b></p>	<p>There would not be any new restrictions on pack and saddle stock use on system trails proposed in this alternative.</p> <p>Existing pack and saddle stock restrictions would not be changed.</p>	<p>Pack and saddle stock would be limited to day use only on the Lake Fork Trail (Trail 2), Lost Lake Trail (Trail 2A), Keyser Brown Trail (Trail 2C), and Lake Mary Trail (Trail 1A). Pack and saddle stock would be prohibited from using the Crow Lake Trail (Trail 13B). These changes are reflected in Appendix C.</p> <p>Existing pack and saddle stock restrictions would not be changed.</p>	<p>Same as Alternative B.</p>	<p>The existing pack and saddle stock restrictions on the West Rosebud, Huckleberry, Basin Lake, and Glacier Lake trails are included in this alternative.</p>	<p>Same as Alternative A.</p>

**Table 2–6. Summary of Elements for Each Alternative**

Element	Alternative A (Existing Condition)	Alternative B	Alternative C	No Action Alternative	Alternative B Modified (Preferred Alternative)
<p><b>Season of Use Designations</b></p>	<p>Season of use for all designated routes is yearlong except for the following seasons of use. Existing season of use designations would not be changed.</p> <p><b>May 15 through September 30 season of use would be designated for currently gated campgrounds:</b> Palisades, Cascade, Basin, Sheridan, Greenough Lake, Limber Pine, Woodbine, Pine Grove, Lower Pine Grove, Emerald, and Jimmy Joe.</p> <p>The following season of use designation would be implemented under this alternative to protect roadbeds when they tend to be particularly wet and to discourage visitors from driving around wet or muddy sections of roads.</p> <p><b>July 16 through March 31 season of use would be designated</b> for Picket Pin – Iron Mountain and related spur roads (#2140 series). Maintains consistency with the Gallatin National Forest.</p>	<p>Season of use for all designated routes is yearlong except for the following seasons of use. Existing season of use designations would not be changed.</p> <p><b>May 15 through September 30 season of use would be designated for currently gated campgrounds:</b> Palisades, Cascade, Basin, Sheridan, Greenough Lake, Limber Pine, Woodbine, Pine Grove, Lower Pine Grove, Emerald, and Jimmy Joe.</p> <p>The following seasons of use designations would be implemented under this alternative to protect roadbeds when they tend to be particularly wet and to discourage visitors from driving around wet or muddy sections of roads.</p> <p><b>July 16 through March 31 season of use would be designated</b> for Picket Pin – Iron Mountain and related spur roads (#2140 series). Maintains consistency with the Gallatin National Forest.</p>	<p>Season of use for all designated routes is yearlong except for the following seasons of use. Existing season of use designations would not be changed.</p> <p><b>May 15 through September 30 season of use would be designated for currently gated campgrounds:</b> Palisades, Cascade, Basin, Sheridan, Greenough Lake, Limber Pine, Woodbine, Pine Grove, Lower Pine Grove, Emerald, and Jimmy Joe.</p> <p>The following seasons of use designations would be implemented under this alternative to protect roadbeds when they tend to be particularly wet and to discourage visitors from driving around wet or muddy sections of roads.</p> <p><b>July 16 through March 31 season of use would be designated</b> for Picket Pin – Iron Mountain and related spur roads (#2140 series). Maintains consistency with the Gallatin National Forest.</p>	<p>Season of use for all designated routes is yearlong except for the following documented existing seasons of use.</p> <p><b>April 15 through December 1 season of use designations include</b> West Fork, Lake Fork, Basin Trailhead, Silver Run, Wild Bill Lake, and Robertson Draw areas of the Beartooth Unit.</p> <p><b>June 30 through September 1 season of use designation includes</b> Mill Hollow Road #2085T in the Pryors Unit.</p> <p><b>September 1 through December 1 season of use is currently designated for pack and saddle stock use only</b> on West Rosebud Trail #19, Huckleberry Trail #19A, and Basin Lake Trail #61.</p>	<p>Season of use for all designated routes is yearlong except for the following seasons of use. Existing season of use designations would not be changed.</p> <p><b>May 15 through September 30 season of use would be designated for currently gated campgrounds:</b> Palisades, Cascade, Basin, Sheridan, Greenough Lake, Limber Pine, Woodbine, Pine Grove, Lower Pine Grove, Emerald, and Jimmy Joe.</p> <p>The following seasons of use designations would be implemented under this alternative to protect roadbeds when they tend to be wet from snowmelt and to discourage visitors from driving around snow banks.</p> <p><b>May 22 through April 15 season of use would be designated</b> for higher elevation roads in the Pryor Unit with southern aspects. See the Map Package and Appendix C for more details.</p>

Table 2–6. Summary of Elements for Each Alternative

Element	Alternative A (Existing Condition)	Alternative B	Alternative C	No Action Alternative	Alternative B Modified (Preferred Alternative)
		<p><b>June 15 through April 15 season of use would be designated for</b> higher elevation roads on Big Pryor Mountain and on Big Ice Cave Road (Road # 2308) from the junction with the Beaverslide (Road # 2097) east to the forest boundary. See the Map Package and Appendix C for more details.</p> <p><b>June 1 through April 1 season of use would be designated on</b> Red Lodge Creek Road (Road #2141) and Pole Road (Road #21416).</p> <p><b>April 15 through December 1 season of use designation</b> consistent with season of use for West Fork of Rock Creek Road (Road #2071) would be implemented for non-system roads converted to system roads accessed by West Fork of Rock Creek Road.</p>	<p><b>June 15 through April 15 season of use would be designated for</b> higher elevations in the Pryor Mountains on portions of Red Pryor Divide Road #2091, Miller Trail #2496, and Stockman Trail #2850; and on Big Ice Cave Road (Road # 2308) from the junction with the Beaverslide (Road # 2097) east to the forest boundary. See the Map Package and Appendix C for more details.</p>		<p><b>June 15 through April 15 season of use would be designated for</b> higher elevation roads in the Pryor Unit with northern aspects. See the Map Package and Appendix C for more details.</p> <p><b>May 1 through March 1 season of use would be designated on</b> Red Lodge Creek Road (Road #2141) and Pole Road (Road #21416).</p> <p><b>April 15 through December 1 season of use designation</b> consistent with season of use for West Fork of Rock Creek Road (Road #2071) would be implemented for non-system roads converted to system roads accessed by West Fork of Rock Creek Road.</p>
<b>Type of Vehicle Designations</b>	System roads in the following areas would be converted to system motorized trails and designated for use by all motorized vehicles:	The majority of system roads south of Sage Creek Road and west of Crooked Creek Road would be converted to system motorized trails and designated for use by all	System roads would be designated for use by highway legal vehicles. Under this alternative, there would be only highway legal roads; no motorized trails.	System roads would be designated for use by highway legal vehicles.	The majority of system roads south of Sage Creek Road and west of Crooked Creek Road would be converted to system motorized trails and designated for use by all

**Table 2–6. Summary of Elements for Each Alternative**

Element	Alternative A (Existing Condition)	Alternative B	Alternative C	No Action Alternative	Alternative B Modified (Preferred Alternative)
	<p><b>Tie Flat/Stephens Draw/Mill Hollow.</b> This is a popular dispersed camping area for families. These roads would be converted to provide several smaller loop opportunities that could be enjoyed by families.</p> <p><b>Big Pryor/Red Pryor.</b> This area would be converted to provide motorized recreationists with a variety of experiences, challenging terrain, and loop opportunities.</p> <p><b>Benbow.</b> This is a popular dispersed camping area for motorized recreationists. System roads that make a connection between dispersed camping areas and the Benbow Jeep Trail would be converted to allow recreationists, particularly families, to ride from camp to the jeep trail. The jeep trail would also be converted to allow all types of motorized vehicles.</p> <p><b>Iron Mountain.</b> The upper portion of Picket Pin and all routes along Iron Mountain would allow all types of motorized vehicles.</p>	<p>motorized vehicles. In general, all other designated system roads in the Pryors and Beartooth units would be designated for use by highway legal vehicles.</p> <p><b>Lodgepole and Meyers Creek</b> trails would be converted from motorized single track trails to non-motorized trails.</p> <p>Appendix C provides a complete list of all type of vehicle designations.</p>	<p>Appendix C provides a complete list of all type of vehicle designations.</p>		<p>OHVs.</p> <p><b>Lower Red Pryor/Crooked Creek, Punchbowl, Tie Flats area, and Beaverslide</b> area would have mixed use.</p> <p><b>Lodgepole and Meyers Creek</b> trails would remain motorized single track trails.</p> <p><b>Benbow.</b> The jeep trail would be converted to allow all types of motorized vehicles.</p> <p>In general, all other designated system roads in the Pryors and Beartooth units would be designated for use by highway legal vehicles.</p> <p>Appendix C provides a complete list of all type of vehicle designations.</p>

**Table 2–6. Summary of Elements for Each Alternative**

Element	Alternative A (Existing Condition)	Alternative B	Alternative C	No Action Alternative	Alternative B Modified (Preferred Alternative)
	<p>In general, all other designated system roads would be designated for use by highway legal vehicles. Appendix C provides a complete list of all type of vehicle designations.</p>				
<p><b>Dispersed Vehicle Camping</b></p>	<p>Access for dispersed vehicle camping would be allowed within 300 feet of all designated system roads and motorized trails on the District. See Appendix D for further details regarding Dispersed Camping.</p>	<p>Under Alternative B, access to dispersed vehicle camping would be allowed within 300 feet of all designated system roads and motorized trails on the District, except along system road <b>#2421 Main Fork of Rock Creek</b>.</p> <p>Along the Main Fork Rock Creek road, the goal is to continue to provide dispersed vehicle camping while not allowing further dispersed site establishment. Current use has been evaluated and is generally acceptable. Water quality, cultural, and aesthetic resource concerns exist with expansion of dispersed vehicle camping site establishment and recurring use. Elements of Alternative B address these concerns.</p> <p>Along the Main Fork Rock Creek Road #2421, dispersed vehicle camping would be allowed on or</p>	<p>Alternative C would not allow the use of motor vehicles within a specified distance of designated motorized routes solely for the purposes of dispersed vehicle camping. However, parking would be allowed within one vehicle length from the edge of system roads and motorized trails. See Appendix D for further details regarding Dispersed Camping.</p>	<p>Access to dispersed vehicle camping would be allowed within 300 feet of all designated system roads and motorized trails on the District. See Appendix D for further details regarding Dispersed Camping.</p>	<p>Under Alternative B-Modified, access to dispersed vehicle camping would be allowed within 300 feet of all designated system roads and motorized trails on the District, except along system road <b>#2421 Main Fork of Rock Creek</b>.</p> <p>Along the Main Fork Rock Creek road, the goal is to continue to provide dispersed vehicle camping while not allowing further dispersed site establishment. Current use has been evaluated and is generally acceptable. Water quality, cultural, and aesthetic resource concerns exist with expansion of dispersed vehicle camping site establishment and recurring use. Elements of Alternative B-Modified address these concerns.</p> <p>Along the Main Fork Rock Creek Road #2421, dispersed vehicle camping would be allowed on or</p>

**Table 2–6. Summary of Elements for Each Alternative**

Element	Alternative A (Existing Condition)	Alternative B	Alternative C	No Action Alternative	Alternative B Modified (Preferred Alternative)
		<p>within a vehicle’s length from the edge of designated spurs off system road #2421.</p> <p>Six of about 30 existing dispersed camp areas along Main Fork of Rock Creek Road #2421 would not be open for public use due to water quality and cultural resource concerns under Alternative B. The location identifier in Appendix D, Table D-1 can be cross-referenced to its location in Figures D-1 through D-3.</p> <p>Also under Alternative B, access to dispersed vehicle camping along the <b>West Fork Rock Creek Road #2071</b> would continue to be allowed within 300 feet of all designated system roads and motorized trails. However, per Forest Plan direction, there would be a 100 foot dispersed vehicle camping prohibition from the West Fork Rock Creek live streams.</p> <p>See Appendix D for further details regarding dispersed vehicle camping.</p>			<p>within a vehicle’s length from the edge of designated spurs off system road #2421.</p> <p>Six of about 30 existing dispersed camp areas along Main Fork of Rock Creek Road #2421 would not be open for public use due to water quality and cultural resource concerns under Alternative B-Modified. The location identifier in Appendix D, Table D-1 can be cross-referenced to its location in Figures D-1 through D-3.</p> <p>Also under Alternative B-Modified, access to dispersed vehicle camping along the <b>West Fork Rock Creek Road #2071</b> would continue to be allowed within 300 feet of all designated system roads and motorized trails. However, per Forest Plan direction, there would be a 100 foot dispersed vehicle camping prohibition from the West Fork Rock Creek live streams.</p> <p>See Appendix D for further details regarding dispersed vehicle camping.</p>

**Table 2-7. Summary of Miles<sup>3</sup> of Roads and Trails by Alternative**

Route Designation		Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified	
<b>National Forest System Roads</b>	Designated for public motorized use	Pryor Unit	77	74	78	150	75
		Beartooth Unit	148	137	120	129	135
		District	225	211	198	279	210
	Administrative use only	Pryor Unit	6	13	27	1	13
		Beartooth Unit	36	38	38	28	40
		District	42	51	65	29	53
	Not designated	Pryor Unit	14	34	59	12	10
		Beartooth Unit	7	10	13	7	34
		District	21	44	72	19	44
<b>Non-System Routes</b>	Not converted to system roads or trails	Pryor Unit	2	26	33	37	27
		Beartooth Unit	17	30	43	54	30
		District	19	56	76	91	57
<b>National Forest System Trails</b>	Non-motorized use	Pryor Unit	2	2	2	2	2
		Beartooth Unit	277	284	286	271	271
		District	279	286	289	273	279
	Designated for public motorized use	Pryor Unit	100	51	0	0	50
		Beartooth Unit	18	2	0	8	8
		District	118	53	0	8	58

**Table 2-8. Summary of Miles of System Roads and Trails by Type of Public Use Designation by Alternative**

Type of Use	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
<b>Road Designation Type</b>					
All types allowed (motorized mixed use)	28	27	0	0	52
Highway legal vehicles	197	185	198	279	158
Subtotal	225	212	198	279	210
<b>Motorized Trail Designation Type</b>					
All types allowed	110	50	0	0	49
Less than 50 inches only	2	2	0	2	2
Motorcycles only	6	0	0	6	6
Subtotal	118	52	0	8	57
<b>Motorized - Total Miles</b>	<b>341</b>	<b>261</b>	<b>198</b>	<b>287</b>	<b>267</b>
<b>Non-Motorized Trail Designation Type</b>					
All types allowed	91	98	96	88	88
Pedestrian/hiking use only	8	9	9	6	6
Pedestrian/hiking, and pack and saddle stock use only	177	177	183	177	176
Pedestrian/hiking and mechanized use only	3	3	0	3	3
<b>Non-Motorized - Total Miles</b>	<b>279</b>	<b>287</b>	<b>288</b>	<b>274</b>	<b>273</b>

<sup>3</sup> Comparison between tables may not be exact due to rounding error.

**Chapter 2: Public Participation, Issues and Alternatives**

**Table 2-9. Miles of System Roads and Trails Designated for Public Motorized Use by Proposed Season of Use Designation for each Alternative**

Season of Use	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
Yearlong	310	167	148	269	177
April 15 – December 1 (Wildlife - Robertson Draw; Winter Recreation - Routes added off of West Fork of Rock Creek and Ingles Creek)	15	19	15	15	19
May 15 – March 8 (Spring Thaw - Red Lodge Creek)	0	0	0	0	3
May 15 – September 30 (Protection - Ten Gated Campgrounds)	7	7	7	0	7
May 22 – April 15 (Spring Thaw - Pryors High Elevation)	0	0	0	0	43
June 15 – April 15 (Spring Thaw- Pryors High Elevation)	0	60	19	0	15
June 15 – December 1 (Wildlife – Meyer/Lodgepole)	0	0	0	0	6
June 30 – September 1 (Timber Sale Mitigation - Mill Hollow)	0	0	0	3	0
July 16 – March 31 (Consistency with Gallatin NF)	12	12	7	0	0

**Table 2-10. Miles of non-motorized system trails with pack and saddle stock day-use restrictions for each alternative.**

Season of Use	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
Day Use – Pack and Saddle Stock	0	12	12	0	0

**Table 2-11. Comparison of Effects by Alternative**

Feature		Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified (Preferred Alternative)
<b>Recreation</b>						
<b>Motorized Recreation Opportunity</b>						
Acres of Rural ROS	Pryor Unit	0	0	0	0	0
	Beartooth Unit	12,676	12,676	12,676	12,676	12,205
	District	12,676	12,676	12,676	12,676	12,205
Acres of Roaded Natural ROS	Pryor Unit	19,399	25,739	41,621	44,055	25,875
	Beartooth Unit	51,832	51,830	51,314	51,830	52,307
	District	71,231	77,569	92,935	95,885	78,182
Acres of Semi-Primitive Motorized ROS	Pryor Unit	35,985	23,380	0	0	22,439
	Beartooth Unit	6,715	1,848	1,848	6,715	6,072
	District	42,700	25,228	1,848	6,715	28,511
Miles of motorized roads and trails	Pryor Unit	177	122	78	149	124
	Beartooth Unit	165	139	120	138	143
	District	341	261	198	287	267
<b>Non-Motorized Recreation Opportunity</b>						
Acres of Semi-Primitive Non-Motorized ROS	Pryor Unit	22,584	28,849	36,347	33,913	29,654
	Beartooth Unit	127,281	132,150	132,666	127,283	127,920
	District	149,865	160,999	169,013	161,196	157,574
Acres of Primitive ROS	Pryor Unit	0	0	0	0	0
	Beartooth Unit	327,121	327,121	327,121	327,121	327,121
	District	327,121	327,121	327,121	327,121	327,121
Miles of non-motorized trails	Pryor Unit	2	2	2	1	2
	Beartooth Unit	274	285	284	271	271
	District	276	287	286	272	273
<b>Opportunity for Off-Highway Vehicle Operation</b>						
Miles of Mixed Use System Roads		28	27	0	0	52
Miles of Motorized System Trails		118	52	0	8	57
Total Miles available for Off-Highway Vehicle Operation		146	79	0	8	109
<b>Noise</b>						
Acres in motorized ROS settings (Percent of land unit in motorized ROS settings)	Pryor Unit	55,384 (71%)	49,119 (63%)	41,421 (53%)	44,055 (56%)	48,314 (62%)
	Beartooth Unit	71,233 (14%)	66,354 (13%)	66,038 (13%)	71,222 (14%)	70,584 (13%)
	District	126,607 (21%)	115,473 (19%)	107,459 (18%)	115,277 (19%)	118,898 (20%)
Acres in non-motorized ROS settings (Percent of land unit in non-motorized ROS)	Pryor Unit	22,584 (29%)	28,849 (37%)	36,347 (47%)	33,913 (43%)	29,654 (38%)
	Beartooth Unit	458,416 (87%)	459,272 (87%)	495,515 (87%)	454,404 (87%)	455,041 (94%)

**Table 2-11. Comparison of Effects by Alternative**

Feature		Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified (Preferred Alternative)
settings)	District	481,000 (79%)	488,121 (81%)	495,862 (82%)	488,317 (81%)	484,695 (80%)
<b>Cultural Resources</b>						
Number of Sites potentially affected (directly and indirectly)	Pryor Unit	16	7	0	19	7
	Beartooth Unit	6	2	1	7	3
	District	22	9	1	26	10
Number of Cultural Landscapes potentially affected	Pryor Unit	2	1	2	2	0
	Beartooth Unit	0	0	0	0	0
	District	2	1	2	2	0
Number of Traditional Cultural Properties potentially affected within the project area.	Pryor Unit	17	12	12	14	5
	Beartooth Unit	30	23	6	25	23
	District	47	35	18	39	28
<b>Water Quality, Fisheries, and Aquatics</b>						
Miles of actions that reduce risks on moderate and high risk routes within the project area		8.5	54.6	51.9	0	43.3
Miles of actions that increase risks on moderate and high risk routes within the project area		5.8	4.2	4.0	0	4.1
<b>Sensitive Aquatic Species</b>						
Number of Species with No Impact		2	2	2	2	3
Number of Species with potential to effect individuals or Habitat but will not Likely Contribute to a trend towards Federal Listing or Loss of Viability to the Population or Species		1	1	1	1	0
Number of Species likely to result in a trend to Federal listing or loss of viability		0	0	0	0	0
<b>Aquatic Species of Concern</b>						
Number of Species with No Impact		0	0	0	0	1
Number of Species with potential to effect individuals or Habitat but will not Likely Contribute to a trend towards Federal Listing or Loss of Viability to the Population or Species		1	1	1	1	0
<b>Wildlife</b>						
<b>Threatened or Endangered Wildlife Species</b>						
Number of species with No Jeopardy		1	1	1	1	1
Number of species with potential to effect, but not likely to adversely affect.		1	1	1	1	1
Number of species with potential to effect, and likely to adversely affect		0	0	0	0	0

**Table 2-11. Comparison of Effects by Alternative**

Feature	Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified (Preferred Alternative)	
<b>Sensitive Wildlife Species</b>						
Number of Species with Beneficial Impact	0	5	0	0	5	
Number of Species with No Impact	14	15	15	14	15	
Number of Species with potential to effect individuals or Habitat but will not Likely Contribute to a trend towards Federal Listing or Loss of Viability to the Population or Species	9	3	8 <sup>4</sup>	9	3	
Number of Species likely to result in a trend to Federal listing or loss of viability	0	0	0	0	0	
<b>Management Indicator Species</b>						
Number of Species with Positive Effects	0	0	2	0	0	
Number of Species with Neutral Effects	16	16	14	16	16	
Number of Species with Negative Effects	0	0	0	0	0	
<b>Other Species of Concern</b>						
Number of Species with No effect	3	3	3	3	3	
<b>Canada Lynx</b>						
Motorized Route Density within Lynx Analysis Unit (miles per square mile)	Pryor Unit	0.7	0.5	0.3	0.6	0.5
	Beartooth Unit	0.2	0.2	0.2	0.2	0.2
	District	0.3	0.2	0.2	0.3	0.2
<b>Gray Wolf</b>						
Motorized Route Density change from No Action (miles per square mile)	Pryor Unit	+ 0.3	- 0.1	- 0.35	0	- 0.1
	Beartooth Unit	+ 0.09	+ 0.07	- 0.05	0	+ 0.06
	District	+ 0.15	- 0.01	- 0.13	0	+ 0.02
<b>Grizzly Bear</b>						
Percent secure habitat available outside the primary conservation area	Suitable	91%	92%	92%	92%	92%
	Unsuitable	52%	59%	64%	57%	58%
	Suitable + Unsuitable	79%	82%	84%	81%	82%
<b>Wolverine</b>						
Motorized Route Density - no habitat in the Pryor Unit	Beartooth Unit	Low (<0.7 miles per square mile)				

<sup>4</sup> Although Alternative C has fewer motorized routes than the other alternatives, it does not provide the same level of protection to some sensitive species due to lower amount of area receiving seasonal restrictions. Therefore, there is potential to affect individuals or Habitat but will not Likely Contribute to a trend towards Federal Listing or Loss of Viability to the Population or Species on more sensitive species in Alternative C than in Alternatives B or B Modified.

**Table 2-11. Comparison of Effects by Alternative**

Feature		Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified (Preferred Alternative)
Acres of Refugia - no habitat in the Pryor Unit (Acres)	Beartooth Unit	346,300	389,600	389,600	346,300	371,155
<b>Elk</b>						
Motorized Route Density (miles per square mile)	Pryor Unit	1.49	1.16	0.69	1.44	1.27
	Beartooth Unit	0.47	0.41	0.37	0.44	0.39
Percent secure habitat within elk habitat	Pryor Unit	22%	25%	37%	23%	26%
	Beartooth Unit	65%	68%	69%	64%	66%
<b>Big Horn Sheep</b>						
Acres of Escape Terrain	Pryor Unit	3,920	4,926	6,138	4,388	5,129
	Beartooth Unit	5,543	5,904	5,970	5,612	5,809
Acres of winter range within and outside motorized route buffer within bighorn sheep habitat on the District.	Within buffer	8,373	8,191	8,161	7,966	8,316
	Outside buffer	10,076	10,258	10,288	10,483	10,129
<b>General Wildlife</b>						
Percent of Land Unit that is core wildlife habitat (base on motorized routes)	Pryor Unit	16%	25%	35%	22%	27%
	Beartooth Unit	82%	83%	83%	82%	82%
Percent of Land Unit that is core wildlife habitat (based on motorized & non-motorized routes)	Pryor Unit	16%	25%	35%	22%	27%
	Beartooth Unit	56%	57%	57%	57%	57%
<b>Soils</b>						
<b>High/Very High Erosion Hazard Rating</b>						
Miles of Motorized Routes designated for public use	Pryor Unit	81	57	31	67	58
	Beartooth Unit	29	23	19	27	25
	District	111	80	50	94	84
Miles of Non-motorized Routes designated for public use.	Pryor Unit	1	2	2	1	2
	Beartooth Unit	72	76	76	72	72
	District	73	78	77	73	74
<b>Medium Erosion Hazard Rating</b>						
Miles of Motorized Routes designated for public use.	Pryor Unit	19	9	8	13	10
	Beartooth Unit	35	23	19	26	26
	District	54	32	27	40	36
Miles of Non-motorized Routes designated for public use.	Pryor Unit	0	0	0	0	0
	Beartooth Unit	78	82	82	75	78
	District	78	82	82	75	78

**Table 2-11. Comparison of Effects by Alternative**

Feature		Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified (Preferred Alternative)
<b>Vegetation</b>						
<b>High Risk Areas - Motorized Routes</b>						
Acres Potential Frequent Use Areas (% of High Risk Area)	Pryor Unit	221 (2%)	202 (2%)	52 (<1%)	217 (2%)	173 (2%)
	Beartooth Unit	21 (<1%)	20 (<1%)	2 (<1%)	11 (<1%)	22 (<1%)
	District	195 (<1%)	218 (<1%)	102 (<1%)	228 (<1%)	195 (<1%)
Acres Potential Infrequent Use Areas (% of High Risk Area)	Pryor Unit	1851 (16%)	1481 (13%)	291 (3%)	1581 (14%)	1497 (13%)
	Beartooth Unit	1442 (1%)	1411 (1%)	237 (<1%)	1256 (1%)	1685 (1%)
	District	3293 (2%)	2892 (1%)	528 (<1%)	2837 (1%)	3570 (2%)
Miles in High Risk Area	Pryor Unit	29	23	21	25	20
	Beartooth Unit	23	21	17	17	22
	District	52	44	38	42	42
<b>High Risk Areas - Non-Motorized Routes</b>						
Acres Potential Frequent Use Areas (% of High Risk Area)	Pryor Unit	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Beartooth Unit	42 (<1%)	44 (<1%)	44 (<1%)	44 (<1%)	42 (<1%)
	District	42 (<1%)	44 (<1%)	44 (<1%)	44 (<1%)	42 (<1%)
Miles through High Risk Area	Pryor Unit	1	1	1	1	1
	Beartooth Unit	109	109	109	109	107
	District	110	110	110	110	108
<b>Weeds Susceptibility</b>						
Weed Susceptible Acres within designated road corridor		15,290	11,029	2,211	13,087	11,097
<b>Weed Infestation</b>						
Total Infested Acres within Motorized Route potentially affected corridor		254	236	218	277	236
<b>Sensitive Plants</b>						
Number of Species with No Impact		9	9	9	9	9
Number of Species with potential to effect individuals or Habitat but will not Likely Contribute to a trend towards Federal Listing or Loss of Viability to the Population or Species		3	3	3	3	3
Number of Species likely to result in a trend to Federal listing or loss of viability		0	0	0	0	0
<b>Inventoried Roadless Areas</b>						
Miles of non-system routes within inventoried roadless area proposed to be converted to system routes.		1.8	0.6	0.5	0	0.6
Miles of system routes within inventoried roadless areas.		13.6	9.4	9.4	13.6	12.6

**Table 2-11. Comparison of Effects by Alternative**

Feature	Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified (Preferred Alternative)
<b>Economics</b>					
Estimated economic contribution of motorized and non-motorized recreation opportunities on the District to local and regional economies.	There is no appreciable difference under all alternatives.				

The following table provides a summary of changes in effects of implementing each action alternative *compared to the no action alternative*. Detailed effects analyses for each Alternative are found in Chapter 3.

**Table 2-12. Summary of Changes in Effects Compared to the No Action Alternative**

Change from the No Action Alternative	Unit	Alternative A	Alternative B	Alternative C	Alternative B Modified (Preferred Alternative)
<b>Recreation</b>					
<b>Motorized Recreation Opportunity</b>					
Change in acreage of motorized opportunities within Rural settings	Pryor	No Change			
	Beartooth	No Change			Reduced by 471 Acres
	District	No Change			Reduced by 471 Acres
Change in acreage of motorized opportunities within Roaded Natural settings	Pryor	Reduced by 24,656 Acres	Reduced by 18,316 Acres	Reduced by 2,434 Acres	Reduced by 18,180 Acres
	Beartooth	Increased by 2 Acres	No Change	Reduced by 516 Acres	Increased by 477 Acres
	District	Reduced by 24,654 Acres	Reduced by 18,316 Acres	Reduced by 2,950 Acres	Reduced by 17,703 Acres
Change in acreage of motorized opportunities within Semi-Primitive Motorized settings	Pryor	Increased by 35,985 Acres	Increased by 23,380 Acres	No Change	Increased by 22,439 Ac
	Beartooth	No Change	Reduced by 4,867 Acres	Reduced by 4,867 Acres	Reduced by 643 Acres
	District	Increased by 35,985 Acres	Increased by 18,513 Acres	Reduced by 4,867 Acres	Increased by 21,796 Acres
Change in mileage of motorized road and trail opportunities (% change from No Action)	Pryor	Increased by 28 Miles	Reduced by 27 Miles	Reduced by 71 Miles	Reduced by 25 Miles
	Beartooth	Increased by 27 Miles	Increased by 1 Miles	Reduced by 18 Miles	Increased by 5 Miles
	District	Motorized Recreation Opportunities Increased by 54 Miles (Motorized Opportunities increased by 19%)	Motorized Recreation Opportunities Reduced by 26 Miles (Motorized Opportunities reduced by 9%)	Motorized Recreation Opportunities Reduced by 89 Miles (Motorized Opportunities reduced by 31%)	Motorized Recreation Opportunities Reduced by 20 Miles (Motorized Opportunities reduced by 7%)
<b>Non-Motorized Recreation Opportunity</b>					
Non-motorized opportunities increased or	Pryor	Reduced by 11329 Acres	Reduced by 5064 Acres	Increased by 2434 Acres	Reduced by 4259 Acres
	Beartooth	Reduced by 2 Acres	Increased by 4867 Acres	Increased by 5383 Acres	Increased by 637 Acres

**Table 2-12. Summary of Changes in Effects Compared to the No Action Alternative**

Change from the No Action Alternative	Unit	Alternative A	Alternative B	Alternative C	Alternative B Modified (Preferred Alternative)
reduced in Semi-Primitive Non-Motorized settings in Acres	District	Reduced by 11331 Acres	Reduced by 197 Acres	Increased by 7817 Acres	Reduced by 3622 Acres
Non-motorized opportunities increased or reduced in Primitive settings in Acres	Pryor	No Change			
	Beartooth	No Change			
	District	No Change			
Change in mileage of non-motorized trail opportunities (% change from No Action)	Pryor	Increased by 1 Mile	Increased by 1 Mile	Increased by 1 Mile	Increased by 1 Mile
	Beartooth	Increased by 3 Miles	Increased by 14 Miles	Increased by 13 Miles	No Change
	District	Non-motorized Recreation Opportunities increased by 4 Miles (1%)	Non-motorized Recreation Opportunities increased by 15 Miles (6%)	Non-motorized Recreation Opportunities increased by 14 Miles (5%)	Non-motorized Recreation Opportunities increased by 1 Mile (0%)
<b>Opportunity for Off-Highway Vehicle Operation</b>					
Change in mileage of Mixed Use System Road opportunities		Increased 28 Miles	Increased 27 Miles	No Change	Increased 52 Miles
Change in mileage of Motorized System Trail opportunities		Increased 110 Miles	Increased 44 Miles	Reduced 8 Miles	Increased 49 Miles
Change in mileage available for Off-Highway Vehicle operation opportunities		Increased 138 Miles	Increased 71 Miles	Reduced 8 Miles	Increased 101 Miles
<b>Noise</b>					
Change in acreage of motorized settings where noise might be encountered	Pryor	Motorized settings and associated Noise increased by 138 Acres	Motorized settings and associated Noise increased by 71 Acres	Motorized settings and associated Noise reduced by 8 Acres	Motorized settings and associated Noise increased by 101 Acres
	Beartooth	Motorized settings and associated Noise increased by 11 Acres	Motorized settings and associated Noise reduced by 4,868 Acres	Motorized settings and associated Noise reduced by 5,184 Acres	Motorized settings and associated Noise reduced by 638 Acres
	District	Motorized settings and associated Noise increased by 11,330 Acres	Motorized settings and associated Noise increased by 196 Acres	Motorized settings and associated Noise reduced by 7,818 Acres	Motorized settings and associated Noise increased by 3621 Acres
Change in acreage of Quiet settings	Pryor	Quiet settings reduced by 11,329 Acres	Quiet settings reduced by 5,064 Acres	Quiet settings increased by 2434 Acres	Quiet settings reduced by 4,259 Acres
	Beartooth	Quiet settings increased by 4,012 Acres	Quiet settings increased by 4,868 Acres	Quiet settings increased by 41,111 Acres	Quiet settings increased by 637 Acres
	District	Quiet settings reduced by 7,317 Acres	Quiet settings reduced by 196 Acres	Quiet settings increased by 7545 Acres	Quiet settings reduced by 3,622 Acres

**Table 2-12. Summary of Changes in Effects Compared to the No Action Alternative**

Change from the No Action Alternative	Unit	Alternative A	Alternative B	Alternative C	Alternative B Modified (Preferred Alternative)
<b>Cultural Resources</b>					
Change in number of Sites potentially affected (% change from No Action)	Pryor	3 fewer sites potentially affected (16%)	12 fewer sites potentially affected (63%)	19 fewer sites potentially affected (100%)	12 fewer sites potentially affected (63%)
	Beartooth	1 fewer sites potentially affected (14%)	5 fewer sites potentially affected (71%)	6 fewer sites potentially affected (86%)	4 fewer sites potentially affected (57%)
	District	4 fewer sites potentially affected (15%)	17 fewer sites potentially affected (65%)	25 fewer sites potentially affected (96%)	16 fewer sites potentially affected (62%)
Change in number of Cultural Landscapes potentially affected (% change from No Action)	Pryor	No Change	1 less cultural landscape potentially affected (50%)	No Change	2 fewer cultural landscapes potentially affected (100%)
	Beartooth	No Change			
	District	No Change	1 less site potentially affected (50%)	No Change	2 fewer sites potentially affected (100%)
Change in number of Traditional Cultural Properties (TCPs) potentially affected (% change from No Action)	Pryor	3 additional TCPs potentially affected (21%)	2 fewer TCPs potentially affected (14%)	2 fewer TCPs potentially affected (14%)	9 fewer TCPs potentially affected (64%)
	Beartooth	5 additional TCPs potentially affected (20%)	2 fewer TCPs potentially affected (8%)	19 fewer TCPs potentially affected (76%)	2 fewer TCPs potentially affected (8%)
	District	8 additional TCPs potentially affected (21%)	4 fewer TCPs potentially affected (10%)	21 fewer TCPs potentially affected (54%)	11 fewer TCPs potentially affected (28%)
<b>Water Quality, Fisheries, and Aquatics</b>					
<b>Water Quality</b>					
Miles of actions that reduce risks on moderate and high risk routes (by changing routes to administrative use, not designating existing system routes, and placing seasonal restrictions during spring thaw)		8.5 Miles of Actions reducing risks	54.6 Miles of Actions reducing risks	51.9 Miles of Actions reducing risks	43.3 Miles of Actions reducing risks
Miles of actions that increase risks on moderate and high risk routes (by adding non-system routes)		5.8 Miles of Actions increasing risks	4.2 Miles of Actions increasing risks	4 Miles of Actions increasing risks	4.1 Miles of Actions increasing risks
<b>Sensitive Aquatic Species</b>					
Changes from No Action	No Change; May Impact 1 species and No Impacts on 2 species				Moves Yellowstone Cutthroat Trout from May Impact to No Impact
	Actions will not likely to result in a trend to Federal listing or loss of viability for any of the 3 species analyzed				

**Table 2-12. Summary of Changes in Effects Compared to the No Action Alternative**

Change from the No Action Alternative	Unit	Alternative A	Alternative B	Alternative C	Alternative B Modified (Preferred Alternative)
<b>Aquatic Species of Interest</b>					
Changes from No Action	No Change; Potential to Effect Species of Interest				Moves Wild Trout from Potential to Effect to No Effect
	Actions are not likely to adversely affect the one species analyzed				
<b>Wildlife</b>					
<b>Threatened or Endangered Wildlife Species</b>					
Number of species with potential to effect, and likely to adversely affect	No Change; Actions are not likely to adversely affect any of the 2 species analyzed				
<b>Sensitive Wildlife Species</b>					
Changes from No Action	No Change	Five species move from May Impact to Beneficial Impact category primarily due to protections offered during seasonal restrictions; one species moves from May Impact to No Impact category	One species moves from May Impact to No Impact category	Five species move from May Impact to Beneficial impact category primarily due to protections offered during seasonal restrictions; one species moves from May Impact to No Impact category	
	Actions will not likely to result in a trend to Federal listing or loss of viability for any of the 23 species analyzed				
<b>Management Indicator Species</b>					
Changes from No Action	No Change		2 Species moves from May Effect to No Effect	No Change	
	Actions are not likely to have negative effects to any of the 16 species analyzed.				
<b>Other Species of Interest</b>					
Number of Species with No effect	Actions are not likely to adversely affect any of the 3 species analyzed				
<b>Canada Lynx</b>					
Reduction or increase in risks associated with route density (i.e. displacement in denning habitat during the summer) in miles / square miles compared to No Action (% change from No Action)	Pryor	Risk associated with density slightly increases by 0.1 mi/sq mi (17% higher density but within guidelines)	Risk associated with density slightly decreases by 0.1 mi /sq mi (17% improvement)	Risk associated with density decreases by 0.3 mi /sq mi (50% improvement)	Risk associated with density slightly decreases by 0.1 mi /sq mi (17% improvement)
	Beartooth	No Change			
	District	No Change	Risk associated with density slightly decreases by 0.1 mi /sq mi (33% improvement)	Risk associated with density slightly decreases by 0.1 mi /sq mi (33% improvement)	Risk associated with density slightly decreases by 0.1 mi /sq mi (33% improvement)
	All alternatives are within the conservation strategy's motorized route density guidelines (maximum of 2 miles per square mile).				

**Table 2-12. Summary of Changes in Effects Compared to the No Action Alternative**

Change from the No Action Alternative	Unit	Alternative A	Alternative B	Alternative C	Alternative B Modified (Preferred Alternative)
<b>Gray Wolf</b>					
Reduction or increase in risks associated with route density (i.e. potential for illegal killing or displacement) in miles / square miles compared to No Action (% change from No Action)	Pryor	Risk associated with density increases by 0.3 mi/sq mi (25% higher density)	Risk associated with density slightly decreases by 0.1 mi/sq mi (8% improvement)	Risk associated with density slightly decreases by 0.35 mi/sq mi (29% improvement)	Risk associated with density slightly decreases by 0.1 mi/sq mi (10% higher density)
	Beartooth	Risk associated with density slightly increases by 0.09 mi/sq mi (16% higher density)	Risk associated with density slightly increases by 0.07 mi/sq mi (13% higher density)	Risk associated with density slightly decreases by 0.05 mi/sq mi (9% improvement)	Risk associated with density slightly increases by 0.06 mi/sq mi (11% higher density)
	District	Risk associated with density slightly increases by 0.15 mi/sq mi (15% higher density)	Risk associated with density slightly decreases by 0.01 mi/sq mi (1% improvement)	Risk associated with density slightly decreases by 0.13 mi/sq mi (13% improvement)	Risk associated with density slightly increases 0.02 mi/sq mi (2% higher density)
<b>Grizzly Bear</b>					
Percent change from No Action in the availability of secure habitat outside the Primary Conservation Area	Suitable	Availability of secure habitat is 1% lower	No Change		
	Unsuitable	Availability of secure habitat is 9% lower	Availability of secure habitat is 4% higher	Availability of secure habitat is 12% higher	Availability of secure habitat is 2% higher
	Suitable and Unsuitable	Availability of secure habitat is 2% lower	Availability of secure habitat is 1% higher	Availability of secure habitat is 4% higher	Availability of secure habitat is 1% higher
<b>Wolverine</b>					
Risks associated with motorized route density (i.e. displacement of wolverine or den sites) compared to No Action - no habitat in the Pryor Unit	Beartooth	All alternatives have low risk associated with low motorized route density (<0.7 miles per square mile)			
Percent change in availability of Refugia compared to No Action (Acres) - no habitat in the Pryor Unit	Beartooth	No Change	Availability of Refugia is 13% higher (43,300 Acres)	Availability of Refugia is 13% higher (43,300 Acres)	Availability of Refugia is 7% higher (24,755 Acres)

**Table 2-12. Summary of Changes in Effects Compared to the No Action Alternative**

Change from the No Action Alternative	Unit	Alternative A	Alternative B	Alternative C	Alternative B Modified (Preferred Alternative)
<b>Elk</b>					
Risks associated with motorized route density (i.e. displacement, excessive mortality during hunting season, etc.) compared to No Action	Pryor	Risk associated with density increases by 3%	Risk associated with density decreases by 19%	Risk associated with density decreases by 52%	Risk associated with density decreases by 12%
	Beartooth	Risk associated with density increases by 7%	Risk associated with density decreases by 7%	Risk associated with density decreases by 16%	Risk associated with density decreases by 11%
Percent change from No Action in the availability of Secure Habitat	Pryor	Availability of secure habitat is 4% lower	Availability of secure habitat is 9% higher	Availability of secure habitat is 61% higher	Availability of secure habitat is 13% higher
	Beartooth	Availability of secure habitat is 2% higher	Availability of secure habitat is 6% higher	Availability of secure habitat is 8% higher	Availability of secure habitat is 3% higher
<b>Big Horn Sheep</b>					
Percent change in availability of Escape Terrain compared to No Action (Acres)	Pryor	Availability of Escape Terrain is 11% lower (468 Acres)	Availability of Escape Terrain is 12% higher (538 Acres)	Availability of Escape Terrain is 40% higher (1750 Acres)	Availability of Escape Terrain is 17% higher (741 Acres)
	Beartooth	Availability of Escape Terrain is 1% lower (69 Acres)	Availability of Escape Terrain is 5% higher (292 Acres)	Availability of Escape Terrain is 6% higher (358 Acres)	Availability of Escape Terrain is 4% higher (197 Acres)
Percent change in availability of Winter Range within and outside motorized route buffer compared to No Action (Acres)	Beartooth (Within buffer)	Availability of Winter Range is 5% higher (407 Acres)	Availability of Winter Range is 3% higher (225 Acres)	Availability of Winter Range is 2% higher (195 Acres)	Availability of Winter Range is 4% higher (350 Acres)
	Beartooth (Outside buffer)	Availability of Winter Range is 4% lower (407 Acres)	Availability of Winter Range is 2% lower (225 Acres)	Availability of Winter Range is 2% lower (40957 Acres)	Availability of Winter Range is 3% lower (354 Acres)
<b>General Wildlife</b>					
Percent change in availability of core wildlife habitat (base on motorized routes)	Pryor	Availability of Core Habitat is 14% lower	Availability of Core Habitat is 14% higher	Availability of Core Habitat is 59% higher	Availability of Core Habitat is 23% higher
	Beartooth	Availability of Core Habitat is 2% lower	No Change	No Change	Availability of Core Habitat is 1% lower
Percent change in availability of core wildlife habitat (based on motorized & non-motorized routes)	Pryor	Availability of Core Habitat is 27% lower	Availability of Core Habitat is 14% higher	Availability of Core Habitat is 59% higher	Availability of Core Habitat is 23% higher
	Beartooth	Availability of Core Habitat is 2% lower	No Change	Availability of Core Habitat is 2% higher	No Change

**Table 2-12. Summary of Changes in Effects Compared to the No Action Alternative**

Change from the No Action Alternative	Unit	Alternative A	Alternative B	Alternative C	Alternative B Modified (Preferred Alternative)
<b>Soils</b>					
<b>High/Very High Erosion Hazard Rating</b>					
Percent change of designated motorized routes in High/Very High (H/VH) Erosion Hazard Rating from No Action (Miles)	Pryor	Motorized Routes in H/VH Erosion Hazard Rating increases by 21% (14 Miles)	Motorized Routes in H/VH Erosion Hazard Rating is reduced by 15% (10 Miles)	Motorized Routes in H/VH Erosion Hazard Rating is reduced by 54% lower (36 Miles)	Motorized Routes in H/VH Erosion Hazard Rating is reduced by 13% (9 Miles)
	Beartooth	Motorized Routes in H/VH Erosion Hazard Rating increases by 7% (2 Miles)	Motorized Routes in H/VH Erosion Hazard Rating is reduced by 15% (4 Miles)	Motorized Routes in H/VH Erosion Hazard Rating is reduced 30% (8 Miles)	Motorized Routes in H/VH Erosion Hazard Rating is reduced 7% (2 Miles)
	District	Motorized Routes in H/VH Erosion Hazard Rating increases by 18% (17 Miles)	Motorized Routes in H/VH Erosion Hazard Rating is reduced by 15% (14 Miles)	Motorized Routes in H/VH Erosion Hazard Rating is reduced by 47% (44 Miles)	Motorized Routes in H/VH Erosion Hazard Rating is reduced by 11% (10 Miles)
Percent change of designated non-motorized routes in High/Very High (H/VH) Erosion Hazard Rating from No Action (Miles)	Pryor	No Change	Non-motorized Routes in H/VH Erosion Hazard Rating increases by 100% (1 Mile)	Non-motorized Routes in H/VH Erosion Hazard Rating increases by 100% (1 Mile)	Non-motorized Routes in H/VH Erosion Hazard Rating increases by 100% (1 Mile)
	Beartooth	No Change	Non-motorized Routes in H/VH Erosion Hazard Rating increases by 6% (4 Miles)	Non-motorized Routes in H/VH Erosion Hazard Rating increases by 6% (4 Miles)	No Change
	District	No Change	Non-motorized Routes in H/VH Erosion Hazard Rating increases by 7% (5 Miles)	Non-motorized Routes in H/VH Erosion Hazard Rating increases by 5% (4 Miles)	Non-motorized Routes in H/VH Erosion Hazard Rating increases by 1% (1 Mile)
<b>Medium Erosion Hazard Rating</b>					
Percent change of designated motorized routes in Medium Erosion Hazard Rating from No Action (Miles)	Pryor	Motorized Routes in Medium Erosion Hazard Rating increases by 46% (6 Miles)	Motorized Routes in Medium Erosion Hazard Rating reduced by 31% (4 Miles)	Motorized Routes in Medium Erosion Hazard Rating reduced by 38% (5 Miles)	Motorized Routes in Medium Erosion Hazard Rating reduced by 23% (3 Miles)
	Beartooth	Motorized Routes in Medium Erosion Hazard Rating increases by 35% (9 Miles)	Motorized Routes in Medium Erosion Hazard Rating reduced by 12% (3 Miles)	Motorized Routes in Medium Erosion Hazard Rating reduced by 27% (7 Miles)	No Change

**Table 2-12. Summary of Changes in Effects Compared to the No Action Alternative**

Change from the No Action Alternative	Unit	Alternative A	Alternative B	Alternative C	Alternative B Modified (Preferred Alternative)
	District	Motorized Routes in Medium Erosion Hazard Rating increases by 35% (14 Miles)	Motorized Routes in Medium Erosion Hazard Rating reduced by 20% (8 Miles)	Motorized Routes in Medium Erosion Hazard Rating reduced by 33% (13 Miles)	Motorized Routes in Medium Erosion Hazard Rating reduced by 10% (4 Miles)
Percent change of designated non-motorized routes in Medium Erosion Hazard Rating from No Action (Miles)	Pryor	No Change			
	Beartooth	Non-motorized Routes in Medium Erosion Hazard Rating increases by 4% (3 Miles)	Non-motorized Routes in Medium Erosion Hazard Rating increases by 9% (7 Miles)	Non-motorized Routes in Medium Erosion Hazard Rating increases by 9% (7 Miles)	Non-motorized Routes in Medium Erosion Hazard Rating increases by 4% (3 Miles)
	District	Non-motorized Routes in Medium Erosion Hazard Rating increases by 4% (3 Miles)	Non-motorized Routes in Medium Erosion Hazard Rating increases by 9% (7 Miles)	Non-motorized Routes in Medium Erosion Hazard Rating increases by 9% (7 Miles)	Non-motorized Routes in Medium Erosion Hazard Rating increases by 4% (3 Miles)
<b>Vegetation</b>					
<b>High Risk Motorized Settings</b>					
Change in acreage of potential Frequent Use Areas in High Risk motorized settings (i.e. dispersed campsites) from No Action (% change from No Action)	Pryor	Potential Frequent Use Areas in High Risk settings increases by 4 Acres (2%)	Potential Frequent Use Areas in High Risk settings reduced by 15 Acres (7%)	Potential Frequent Use Areas in High Risk settings reduced by 165 Acres (76%)	Potential Frequent Use Areas in High Risk settings reduced by 44 Acres (20%)
	Beartooth	Potential Frequent Use Areas in High Risk settings increases by 10 Acres (91%)	Potential Frequent Use Areas in High Risk settings increases by 9 Acres (82%)	Potential Frequent Use Areas in High Risk settings reduced by 9 Acres (82%)	Potential Frequent Use Areas in High Risk settings increases by 11 Acres (100%)
	District	Potential Frequent Use Areas in High Risk settings reduced by 33 Acres (14%)	Potential Frequent Use Areas in High Risk settings reduced by 10 Acres (4%)	Potential Frequent Use Areas in High Risk settings reduced by 126 Acres (55%)	Potential Frequent Use Areas in High Risk settings reduced by 33 Acres (14%)
Change in acreage of Potential Infrequent Use Areas in High Risk motorized settings (i.e.	Pryor	Potential Infrequent Use Areas in High Risk settings increases by 270 Acres (17%)	Potential Infrequent Use Areas in High Risk settings reduced by 100 Acres (6%)	Potential Infrequent Use Areas in High Risk settings reduced by 1290 Acres (82%)	Potential Infrequent Use Areas in High Risk settings reduced by 84 Acres (5%)

**Table 2-12. Summary of Changes in Effects Compared to the No Action Alternative**

Change from the No Action Alternative	Unit	Alternative A	Alternative B	Alternative C	Alternative B Modified (Preferred Alternative)
vehicle access to campsites) from No Action (% change from No Action)	Beartooth	Potential Infrequent Use Areas in High Risk settings increases by 186 Acres (15%)	Potential Infrequent Use Areas in High Risk settings increases by 155 Acres (12%)	Potential Infrequent Use Areas in High Risk settings reduced by 1019 Acres (81%)	Potential Infrequent Use Areas in High Risk settings increases by 429 Acres (34%)
	District	Potential Infrequent Use Areas in High Risk settings increases by 456 Acres (16%)	Potential Infrequent Use Areas in High Risk settings increases by 55 Acres (2%)	Potential Infrequent Use Areas in High Risk settings reduced by 2309 Acres (81%)	Potential Infrequent Use Areas in High Risk settings increases by 733 Acres (26%)
Change in mileage of motorized routes in High Risk settings from No Action (% change from No Action)	Pryor	Motorized routes in High Risk settings increases by 4 Miles (16%)	Motorized routes in High Risk settings reduced by 2 Miles (8%)	Motorized routes in High Risk settings reduced by 4 Miles (16%)	Motorized routes in High Risk settings reduced by 5 Miles (20%)
	Beartooth	Motorized routes in High Risk settings increases by 6 Miles (35%)	Motorized routes in High Risk settings increases by 4 Miles (24%)	No Change	Motorized routes in High Risk settings increases by 5 Miles (29%)
	District	Motorized routes in High Risk settings increases by 10 Miles (24%)	Motorized routes in High Risk settings increases by 2 Miles (5%)	Motorized routes in High Risk settings reduced by 4 Miles (10%)	No Change
<b>High Risk Non-Motorized Settings</b>					
Change in acreage of potential Frequent Use Areas in High Risk non-motorized settings (i.e. dispersed campsites) from No Action (% change from No Action)	Pryor	No Change			
	Beartooth	Potential Frequent Use Areas in High Risk non-motorized settings reduced by 2 Acres (5%)	No Change		Potential Frequent Use Areas in High Risk non-motorized settings reduced by 2 Acres (5%)
	District	Potential Frequent Use Areas in High Risk non-motorized settings reduced by 2 Acres (5%)	No Change		Potential Frequent Use Areas in High Risk non-motorized settings reduced by 2 Acres (5%)
Change in mileage of non-motorized routes in High Risk settings from No Action (% change from No Action)	Pryor	No Change			
	Beartooth	No Change			Non-motorized routes in High Risk non-motorized settings reduced by 2 Miles (2%)

**Table 2-12. Summary of Changes in Effects Compared to the No Action Alternative**

Change from the No Action Alternative	Unit	Alternative A	Alternative B	Alternative C	Alternative B Modified (Preferred Alternative)
	District	No Change			Non-motorized routes in High Risk non-motorized settings reduced by 2 Miles (2%)
<b>Weeds Susceptibility</b>					
Change in acreage of Weed Susceptible areas, within motorized route corridor, from No Action (% change from No Action)		Weed Susceptible Area increased by 2203 Acres (17%)	Weed Susceptible Area reduced by 2058 Acres (16%)	Weed Susceptible Area reduced by 10,876 Acres (83%)	Weed Susceptible Area reduced by 1990 Acres (15%)
<b>Weed Infestation</b>					
Change in motorized route corridor exposure to weed infestation acreage from No Action (% change from No Action)		Motorized route corridor exposure to weed infestations reduced by 23 Acres (8%)	Motorized route corridor exposure to weed infestations reduced by 41 Acres (15%)	Motorized route corridor exposure to weed infestations reduced by 59 Acres (21%)	Motorized route corridor exposure to weed infestations reduced by 41 Acres (15%)
<b>Sensitive Plant Species</b>					
Change from No Action		No Change between Effects Determination categories. However, spring thaw seasonal restrictions will provide more protection to vulnerable species. Actions will not likely to result in a trend to Federal listing or loss of viability for any of the 12 species analyzed			
<b>Inventoried Roadless Areas</b>					
Changes in mileage of non-system routes proposed to be converted to system routes within inventoried roadless areas from No Action		Non-system routes proposed to be converted to system routes increases by 1.8 miles	Non-system routes proposed to be converted to system routes increases by 0.6 miles	Non-system routes proposed to be converted to system routes increases by 0.5 miles	Non-system routes proposed to be converted to system routes increases by 0.6 miles
Changes in mileage of existing system routes within inventoried roadless areas from No Action		No Change	Existing system routes within inventoried roadless areas reduced by 4.2 miles	Existing system routes within inventoried roadless areas reduced by 4.2 miles	Existing system routes within inventoried roadless areas increased by 1 mile.
<b>Economics</b>					
Estimated economic contribution of motorized and non-motorized recreation opportunities on the District to local and regional economies.		There is no appreciable difference under all alternatives.			

## **Chapter 2: Public Participation, Issues and Alternatives**

**- End of Chapter 2 -**

# Chapter 3: Affected Environment and Environmental Consequences

## 3.1 INTRODUCTION

This chapter describes the affected environment, methodology for analysis, and the direct, indirect and cumulative effects of the alternatives. The resource summaries focus on those aspects of the physical, biological, and human environment most likely to be affected by the alternatives. More detailed information on certain resources, where necessary to more fully can be found in the resource specialist's reports in the project record.

### 3.1.1 DIRECT AND INDIRECT EFFECTS

Direct effects are caused by an action and occur at the same time and place. Indirect effects are caused by an action and occur later in time or farther removed in distance, but are still reasonably foreseeable (40 CFR 1500-1508). Direct and indirect effects analysis for each alternative and each resource area are based on the factors outlined in alternative descriptions of the alternatives provided in Chapter 2.

### 3.1.2 CUMULATIVE EFFECTS

Cumulative impacts on the environment result from the incremental impact of actions when added to other past, present, and reasonably foreseeable future actions. For each resource, an analysis area was identified and used to adequately measure cumulative effects of the proposed alternative. Unless otherwise stated, the cumulative effects area, or the geographic scope, is the District. For temporal scope, a ten year timeframe for project implementation is used.

#### 3.1.2.1 Past, Present, and Reasonably Foreseeable Activities

*Past Actions* are addressed by the Council on Environmental Quality<sup>1</sup> (CEQ) in the following manner, "Generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions."<sup>2</sup> In other words, the effects of all past actions have created the current affected environment/existing condition, consequently specific past actions do not need to be identified for the cumulative impacts analysis. However, in general, past actions include grazing, timber harvest, mining and exploration, recreational camping, prescribed burning, and small product removal (i.e., post and poles, and firewood).

*Present Actions* are typically ongoing activities and are treated similarly to past actions. Anticipated future changes in these activities are included under reasonably foreseeable actions.

*Reasonably Foreseeable Actions* are those which are formal proposals or decisions not yet implemented at the time of the analysis. Activities that add to the effects of designated travel routes

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<sup>1</sup> CEQ is the agency responsible for promulgation of regulations and guidance for the National Environmental Policy Act.

<sup>2</sup> CEQ's June 24, 2005 Memo

**Chapter 3: Affected Environment and Environmental Consequences**

include wildfires, timber harvesting, fuel reduction, livestock grazing, and recreational uses (hunting, hiking, motorized recreation, etc.). These activities will continue to influence the landscape. These reasonably foreseeable and ongoing (previously planned) activities on NFS lands are considered in the effects analysis shown in the following two Tables.

**Table 3-1. Reasonably Foreseeable Activities<sup>3</sup>**

<b>Project Name</b>	<b>Type of Project</b>
East Pryor Interagency Communications Site	Facility Management
Grizzly Peak Fuel Management	Fuels Management
Piney Creek Pool Enhancement	Fisheries Habitat Management
Beartooth Front Grazing Allotment Planning	Grazing Management
Sage Creek Assessment	Grazing Management
Big Ice Cave Mineral Withdrawal	Minerals Withdrawal
Stillwater Mining Company, Closure and Post Closure	Minerals Management
Pryor Mountain Aspen Regeneration & Restoration	Wildlife Management
Crooked Creek Road Improvement Project	Road Management
Initial Creek ROW and Trail Construction	Trails Management
Pine Grove Campground Cleanup	Recreation Management
Red Lodge Crk, Butcher Crk, East and West Rosebud Crks Allotment Management Planning	Grazing Management
Recreation Residence Deck Construction	Recreation Management
Senia Creek Trail Re-Alignment	Trail Management
Skyline Guest Ranch and Guide Service SUP	Recreation Management
Beartooth Unit Wind Event Cleanup (Outside Campgrounds)	Fuels Management
Recreation Residence Permit Reissuance	Recreation Management

**Table 3-2. Ongoing / Upcoming Activities Considered in Cumulative Effects**

<b>Project Name</b>	<b>Type of Project</b>
Beartooth Aspen Treatment	Wildlife Management
Locatable Minerals Development; Stillwater Mine Company operations	Mineral Management
Plan of Operations - Stillwater Complex (~ 3 three annually) for locatable minerals	Mineral Management
Pryor Mtn reclamation of two abandoned uranium mines (Sandra and Old Glory)	Mineral Management
Gas exploration /development – Line Creek Face (WY)	Mineral Management – Shoshone NF and adjacent Private land
Private, adjacent to NFS - Pryor Mtn. Limestone Existing Operations (~ 200 Ac) and potential expansion (~300 Ac)	Mineral Management
Recreational Use – hunting, camping, viewing, etc.	Recreation Management
Weed Treatment – District-wide	Weed Management
Fuels Treatments ( acres)	Fuels Management
Permitted Grazing (~54,000 suitable acres)	Grazing Management
Interagency Wild Horse Herd Management Area Plan Revision	Wild Horse Management

<sup>3</sup> Source: April 2008 Quarterly Schedule of Proposed Actions (SOPA), Custer National Forest. Projects that were fully implemented after distribution of the SOPA, but prior to publishing this document have been dropped since the table is intended to identify future actions.

**Table 3-2. Ongoing / Upcoming Activities Considered in Cumulative Effects**

<b>Project Name</b>	<b>Type of Project</b>
Acton Recreation Area OHV Travel Management (BLM)	Travel Management
Horsethief High Priority Area OHV Travel Management (BLM)	Travel Management
Shepard An Nei OHV Travel Management (BLM)	Travel Management
Helena Travel Planning – North Belts	Travel Management
Helena Travel Planning – South Belts	Travel Management
Gallatin Travel Planning – Forest-Wide	Travel Management
Lewis and Clark Travel Planning – Rocky Mountain District, Birch Creek South	Travel Management
Lewis and Clark Travel Planning – Little Belt, Castles, and North Half Crazy Mountains	Travel Management

Use of travel routes will continue on privately-owned and public lands within and adjacent to the Custer National Forest. Government agencies such as the National Park Service, Bureau of Land Management, Gallatin National Forest, Shoshone National Forest, Bighorn National Forest, Montana Fish, Wildlife and Parks, Montana Department of Transportation, Montana Department of Natural Resources, local municipalities, Stillwater, Park, Carbon, and Sweet Grass counties of Montana, all travel routes, and to varying degrees, manage them to different standards and restrictions.

**3.1.2.2 Activities Considered But Dropped As Reasonably Foreseeable Future Actions**

The following activities were considered during identification of reasonably foreseeable future actions. However, each was determined to be “speculative” at this point in time. Items were determined to be speculative if a formal proposal has not been developed for activities that would require NEPA, or the proposal has not otherwise been sufficiently developed to identify effects. Projects include the Custer NF Recreation Site Facility Master Planning 5-Year Proposed Program of Work; Bureau of Land Management Travel Management Planning – Pryor Area; Red Lodge Trail Planning; Lilly Pad Trail Planning; and Beartooth Recreational Trail Association - Red Lodge Creek Trail Planning.

**3.1.3 ENVIRONMENTAL JUSTICE**

Executive Order 12898, “General Actions to Address Environmental Justice in Minority Populations and Low Income Populations” requires all Federal agencies to incorporate environmental justice into their mission. No effects to the well-being and the health of minorities and low income groups were identified during scoping and the proposed action would not disproportionately affect minority or low-income populations. Three Indian Reservations are located within the region. No issues of disproportionate distribution of project impacts were found regarding any racial minorities or impoverished populations within the project area that might be affected by implementation of this project. Minority and low income populations will be treated the same as all with respect to travel opportunities.

**3.1.4 NATIVE AMERICAN TREATY RIGHTS**

Many tribes have aboriginal ties and use area within the Custer National Forest, including Crow, Northern Cheyenne, Assiniboine, Shoshone, Arapahoe, Shoshone-Bannock, and Three Affiliated and the Great Sioux Nation. The Crow have treaty rights under the Fort Laramie Treaties to use the National Forests for hunting and gathering. None of the alternatives would affect these treaty rights.

**3.1.5 UNAVOIDABLE ADVERSE EFFECTS (40 CFR 1502.16)**

Chapter 3 of this EIS addresses the potential environmental consequences of the alternatives for Travel Management on the District. In general, any adverse “environmental” effects can be avoided through increased restrictions on human use. However, increased restrictions also limit recreation opportunities. The alternatives were created, in part, to address issues and provide a clear basis for comparison. Adoption of Beartooth Ranger District Travel Management direction does not necessarily mean that adverse environmental effects cannot be avoided. However, some resource impacts may be determined to be acceptable in light of providing for a variety of recreation uses. No unavoidable adverse effects to the various resources that are located within or adjacent to the project area were found. Implementation of any of the alternatives is not expected to move any sensitive wildlife species toward federal listing or threatened/endangered species to be in jeopardy.

**3.1.6 RELATIONSHIP BETWEEN SHORT TERM USE AND LONG TERM PRODUCTIVITY (40 CFR 1502.16)**

Chapter 3 of this EIS discusses the potential resource impacts of each of the alternatives including the potential consequences to soil, vegetation, water quality and biological diversity. Otherwise human travel within the Beartooth Ranger District would not be considered a short-term consumptive use such as timber harvest or mining. In general travel would not affect the ability of the land to produce continuous supplies of other Forest resources. Selection of any of the alternatives considered in this analysis is expected to affect the long term productivity of the soil and vegetation resources within system route prisms while they are in use. Soil and vegetation function and productivity on roads and trails can be recovered if at some future time it is deemed as a need.

**3.1.7 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES (40 CFR 1502.16)**

An “irreversible” commitment of resources results from a decision to use or modify resources that are renewable only over a long period of time. Non-renewable resources, such as minerals, are an irreversible commitment if used. An “irretrievable” commitment of resources refers to resources, resource production or the use of renewable resources that are lost because of land allocation or scheduling decisions. Proposed actions can result in certain effects to various resources which are described throughout Chapter 3 of this EIS. The decision for Beartooth District Travel Management would not result in any irreversible commitment of resources. The decision for Beartooth District Travel Management could result in irretrievable commitment of soil and vegetation resources for as long as the road or trail exists.

**3.1.8 ENERGY REQUIREMENTS AND CONSERVATION POTENTIAL (40 CFR 1502.16)**

The Forest determined that the action alternatives would not affect energy consumption. People will continue to recreate on the District and consume energy for that purpose. The alternatives are not anticipated to change the amount of motorized or non-motorized use of the District, and therefore there would be no change in the amount of energy consumption due to the alternatives. Use on the District is anticipated to increase based on other factors, such as increases in population, but these factors would not be influenced by the alternatives.

## 3.2 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES – SIGNIFICANT ISSUES

The affected environment and environmental consequences (direct, indirect, and cumulative effects) for each alternative are organized by issue topic area and are addressed below.

### 3.2.1 RECREATION

This topic addresses general recreation, which focuses on opportunities for recreational activities, potential for travel planning to impact the human environment and discusses the potential for noise to impact the quality of various recreation activities.

#### 3.2.1.1 Affected Environment – Recreation

##### *Overview of Changes from the Draft to the Final EIS*

- In response to public comment, the analysis identifies effects by land unit and the District, wherever possible.
- The analysis has been more sharply focused on the indicators related to recreation issues. This has allowed some of the affected environment text to be eliminated or moved to the project record, as well as a more concise presentation in the environmental consequences section.

##### *Introduction*

Comments related to recreation on the Beartooth Travel Management Proposal could generally be categorized as issues associated with the loss of recreation opportunities or activities, or issues associated with reduced quality of recreation experiences. Losses of opportunities were typically portrayed as loss of opportunities for family experiences, solitude, adventure, and connections with places that are special to individuals. Specifically, there were concerns about loss of motorized recreation, OHV use opportunities, non-motorized recreation, dispersed vehicle camping, hunting, hiking, horseback riding, target shooting and firewood cutting. Concerns about the reduced quality of experience related to the potential for loss of opportunities for family experiences, increased congestion, and loss of solitude.

##### *Regulatory Framework*

The Custer Forest Plan identifies both Forest-wide and management area-specific direction for recreation management. The Forest-wide goal “is to provide a broad spectrum of recreation experience opportunities”. The more specific guidance provided in the management area direction of the Plan reflects this goal and represents providing a broad range of differing recreation opportunities.

##### *Effects Analysis Methodology*

Motorized and non-motorized recreation opportunities were evaluated based on the acres available in each Recreation Opportunity Spectrum (ROS) setting by season of use for the Pryor and the Beartooth Units, as well as the miles of motorized and non-motorized routes available by alternative for each unit.

The ROS under this analysis includes the following settings: rural, roaded natural, semi-primitive motorized, semi-primitive non-motorized, and primitive. Full definitions of each of the ROS settings are provided later in this section. For this analysis, the Forest Service began by assigning ROS classifications using the National ROS Inventory Mapping Protocol dated 07/01/2003 and based on

### **Chapter 3: Affected Environment and Environmental Consequences**

type of travel (motorized wheeled vehicle versus non-motorized horse/hike/bike travel) allowed on each road and trail. The protocol assigns a one half mile width along each side of motorized wheeled vehicle routes to include in the total acres as the area utilized by motorized activities primarily due to noise.

The miles available for motorized recreation opportunities by alternative were used to determine potential for congestion effects.

Evaluation of opportunities for specific activities involved quantitative consideration of miles of roads and trails available, as well as ROS class acres, by season of use for the Pryor and the Beartooth Units, for each alternative. In addition, trends associated with specific types of recreation and the most current estimates of activity types occurring on the Forest were considered.

#### ***The Recreation Setting***

The District can be described as a land of peaks and plateaus, lakes and canyons representing a wide range of eco-systems from the desert/sagebrush of the Pryor Mountains to the sub-alpine tundra and glaciers of the Beartooth Mountains. The majority of recreation activities occur in conjunction with the motorized and non-motorized travel corridors on the District.

The Beartooth Mountains and the A-B Wilderness are a part of the Greater Yellowstone Area and are important to the local communities as well as being nationally and internationally recognized for the outdoor recreation opportunities they provide. Fifty-five percent of the District lies within the Absaroka-Beartooth Wilderness (332,490 acres). The A-B Wilderness is one of the most heavily used Wildernesses in the Northern Region of the Forest Service. Red Lodge, Montana serves as the northeast gateway to this country and on to Yellowstone National Park via the Beartooth Highway (U.S. 212), an All American Road Scenic Byway.

The terrain of the Beartooth Mountains dictates where most of the roads and trails are located. The roads along the Beartooth front run up most of the major drainages terminating at trailheads that provide access into the A-B Wilderness. Most trails run up drainages and over high mountain passes or plateaus in between. Thirty-four trailheads provide access to 279 miles of trail. The lakes are located on the plateaus and in the drainages and are major attractions for fishing, backpacking and horse pack trips. They also serve as base camps for off-trail hiking and climbing expeditions. Eighteen permitted outfitter/guide operations provide a wide range of services to the public from fly fishing to technical rock climbing. Fifteen campgrounds, four picnic grounds, ninety-nine recreation residences and three organization camps provide accommodations and access to the Beartooths for the public as well.

The Beartooths provide a unique recreation opportunity to experience a combination of high alpine lakes, plateaus, and dramatic glacial valleys with lakes and waterfalls not found elsewhere in the Greater Yellowstone Area, especially with easy access to a paved highway.

During the past 15 years, use of the Main Fork of Rock Creek Road #2421 corridor for dispersed camping has greatly increased. Associated with that activity are impacts such as: loss of vegetation, unauthorized motorized routes, soil disturbance, spread of noxious weeds, accumulation of litter and human waste, and the development of numerous fire rings. Those impacts have, to some extent, degraded the scenic and aesthetic qualities along portions of the Main Fork of Rock Creek.

The terrain of the Pryor Mountains also dictates where most of the roads are located. The roads accessing the western slope lie along the base of the mountains primarily on Bureau of Land Management administered lands with primitive native surfaced roads providing access onto the National Forest. Both system and unauthorized routes run into the canyons or up the ridgelines. Sage Creek Campground provides twelve units to accommodate overnight developed recreation. Big Ice Cave picnic Ground is a day use developed site with six tables and pedestal grills. A parking lot and vault toilet also serve the public accessing the Big Ice Cave, which has a developed pathway and stairs leading down to a viewing platform at the mouth of the cave. Dispersed camping occurs along the Pryor Mountain Road #2308, Crooked Creek Road #2085 and in the Tie Flats area as well as others scattered throughout the Pryors. People picnic, car-camp and stage daylong recreational activities, including off-highway vehicle (OHV) riding, hunting, mountain biking, target practicing, bird watching, hiking, and cave exploration in mostly dispersed recreation settings.

### **Motorized Recreation**

Implementation of the 2001 Tri-State OHV decision restricted motor vehicles to existing roads and trails (USDA Forest Service 2001). Some OHV opportunities on the District are located on existing but unauthorized routes (non-system). Non-system routes are roads and trails that were not designed, constructed, identified or managed as a part of the forest transportation system. Some local four-wheel drive enthusiasts seek challenging motorized opportunities, but there are few existing routes in the Beartooth or the Pryor Units that provide the experience desired.

National Forest system roads are only open to highway legal OHVs and highway legal vehicles. Currently, some unlicensed off-highway vehicles travel on forest designated roads from dispersed campsites and parking areas to specific trail destinations. These same roads may also connect OHV trail segments. While riding on forest designated roads with unlicensed vehicles is common, it is not consistent with state and federal regulations. Under specific circumstances, system roads could be designated as dual use for both licensed and unlicensed vehicles. However, the dual use designation can only be authorized on individual roads following an analysis and evaluation of the risks involved. The opportunity to mix highway legal and unlicensed vehicles has not been evaluated on the District in the past.

Three system motorized trails are currently designated for motorized travel in the analysis area: Lodgepole Trail #22 and Meyers Creek Trail #27 are open to Motorcycle only travel. A portion of Lodgepole Trail was utilized for fire line construction and re-routed into a new alignment during the Derby Fire in 2006. The new section was constructed to a motorized single track standard. Lower Parkside Trail #106 (#23461) is open to OHV less than 50 inches. There are also numerous non-system trails in the analysis area where motorized use occurs.

Resource damage directly attributable to OHV use is readily apparent on certain trails and in some areas, but has not been quantified for the analysis area. Forest road and trail condition information in the INFRA database and Forest Roads Analysis primarily concerns the infrastructure itself rather than its effect on other resources. Non-system OHV routes continued to expand prior to the restriction of cross-country travel.

### **Off-Route Motorized Travel**

The 2001 Tri-State OHV decision and subsequent regulations implemented in 2001 allow motorized travel up to 300 feet off existing motorized routes but only to access dispersed campsites. Prior to that decision, cross-country motorized travel was allowed in the Iron Mountain and Benbow Mine areas on

### **Chapter 3: Affected Environment and Environmental Consequences**

the District and restricted elsewhere.

Existing system road mileages by type of restriction are shown in Chapter 2, Tables 2-7 thru 2-9. The table shows there are 280 miles of road open at least part or all of the year in the analysis area. Currently, system roads can be used by OHVs (motorcycles and ATVs) if they are street legal. It is not necessary on motorized trails to have street legal vehicles.

Existing trail mileages by type of restriction are shown in Chapter 2, Tables 2-7 thru 2-10. The table shows 97 percent of the existing 279 mile long trail system in the analysis area only allows for non-motorized uses. Three percent of the trail system allows for motorized use.

#### **Dispersed Vehicle Camping**

Dispersed vehicle camping occurs throughout the roaded parts of the District. Dispersed vehicle camping is currently allowed within 300 feet of motorized routes (system or non-system). On the Beartooth Unit, heaviest use occurs along the Main Fork and West Fork of Rock Creek. At times during the summer season, dispersed camping along portions of these drainages can look and feel congested. Field review in July 2007 identified over 160 dispersed vehicle sites on the Main Fork drainage between Greenough Campground and the Glacier Lake trailhead. In the Pryor Unit, use tends to be much more dispersed, although certain areas such as Tie Flat, do see relatively more use than other general forest areas in the Pryor Unit.

#### **Other Recreation Activities**

The public identified concerns with travel management planning impacts on other recreation uses, including: firewood cutting, target shooting, and non-commercial and commercial hunting opportunities. Specific use rates are not available for these activities, with the exception of commercial hunting which can only be conducted under an outfitter/guide permit.

Firewood cutting occurs throughout most of the roaded, non-Wilderness portions of the District. Firewood cutting is authorized through permits sold to individuals and authorize permit holders to travel cross country 300 feet to collect firewood.

There are no Forest Service authorized target shooting facilities on the District. Target shooting tends to be concentrated in a few informal sites, such as on the West Fork of Rock Creek near Silver Run, as well as having dispersed use on the District. Generally, target shooting is adjacent to or in close proximity to motorized routes.

Hunting locations vary depending on the game species. Motorized routes provide hunters with access, with some hunters using this access to seek areas more removed from motorized influences, while other hunters may select to hunt along or near motorized routes.

#### ***Recreation Opportunity Spectrum***

Forest Service recreation management is guided by the Recreation Opportunity Spectrum (ROS), which allocates and manages outdoor recreation opportunities and activities by natural resource setting. The Forest Service published an ROS Users Guide in 1981 along with an updated Primer and Field Guide in 1990. A National ROS Inventory Mapping Protocol was implemented in 2003. ROS has been used by the Forest Service nationwide for recreation planning and management to provide opportunities and settings consistent with public expectations to realize a desired set of experiences.

Within the District, ROS settings vary from areas dominated by roads classified for highway vehicle use (Roaded Natural), to areas through which high clearance roads and motorized trails pass (Semi-primitive Motorized), to areas away from the sights and sounds of civilization (Semi-primitive Non-motorized and Primitive). The following are definitions and examples of each setting on the District:

“Rural” settings are characterized by a highly modified natural environment where the sights and sounds of humans are readily evident. This ROS setting is available to both non-motorized and motorized recreation. Quiet trails and opportunities for solitude would be hard to find during much of the year. Developed areas such as Red Lodge Mountain Ski Area and concentrations of recreation residences fit the definition of a rural setting.

“Roaded Natural” settings extend about one-half mile on each side of a road used by standard highway-type vehicles. All roads used by the public or permittees, and all roads used by private landowners outside the Forest boundary were considered as affecting the recreation setting. Non-motorized recreation is available on trails and other areas in this setting. Quiet trails and opportunities for solitude would be hard to find during the summer and fall. Primary access roads for passenger cars and trailer-towing vehicles include, for example, Highway 212 and the West Fork of Rock Creek Road, the road to Sage Creek Campground, etc. Forest development roads and well-used private roads typically are examples of roaded-natural corridors.

“Semi-Primitive Motorized” settings extend about one-half mile on each side of a road or trail where high clearance vehicles or motorized OHVs are legal to be used. The lack of vegetative screening or the influence of intervening ridges may allow the zone to be wider or narrower than one-half mile. This ROS setting is available to both non-motorized and motorized recreation. By definition, quiet trails and the opportunity for solitude would not occur in this setting during the time of year the roads or trails are open to motorized travel.

“Semi-Primitive Non-Motorized” settings denote areas where stock, hiking, and/or bicycling are the predominant modes of travel (OHVs would not be legal to operate in this setting and motorized travel corridors would be at least half mile distant). The lack of terrain screening or vegetative screening may occasionally allow the sights and sounds of humans within three miles to influence the setting. The area does not meet the size, distance, or lack of human disturbance criteria established for “primitive” settings. By definition, this would be a primary area for quiet trails and an appropriate setting to provide opportunities for solitude.

“Primitive” settings denote large areas (generally greater than 5,000 acres in size) that are more than three miles from trails or roads open to motorized use, and where there is little evidence of human disturbance. In this analysis it was impossible or difficult to find acreages more than about two miles from trails or roads open to motorized use in some settings, but topography was considered adequate to screen sights and sounds of motorized areas to create a primitive setting. Additionally, not all primitive settings were 5,000 acres or more in size; OHVs would not be legal to operate in this setting. By definition, this would be the best area for quiet trails and the best setting to provide opportunities for solitude.

### **Pryor Unit ROS**

The No Action Alternative distribution of ROS settings in the analysis area are shown in the following table. The range of ROS settings in the Pryor Unit falls into two classifications due to its distance from and proximity to urban and rural areas, and the absence of motorized trails. ROS data illustrates

**Chapter 3: Affected Environment and Environmental Consequences**

that 57% of the Pryor Unit is in a Roaded Natural setting. The Pryor Unit also includes a Semi Primitive Non Motorized setting that makes up 43% of that land unit.

**Beartooth Unit ROS**

Data for the Beartooth Unit illustrates a wider range of ROS settings due to its distance and proximity to urban and rural areas. As shown in the previous table, ROS data illustrates the majority of the analysis area in the Beartooth Unit is in a Primitive setting and shows that the A-B Wilderness influences 62% of the project area. The Semi-Primitive Non Motorized setting makes up 25% of the project area. These two classifications predominate in the Beartooth Unit, because of the Wilderness and Inventoried Roadless Areas. The data shows a total of 13% of the Beartooth Unit is influenced by roads or motorized trails largely due to the topographic constraints inherent to the landscape of the Beartooth Unit.

**District-Wide ROS**

Added together, the data in the following table shows that 19% of the analysis area is influenced by motorized use. The Pryor Unit has roughly 10,000 more acres in a motorized setting than in a non-motorized setting. The Beartooth Unit has roughly 383,000 more acres in a non-motorized setting than in a motorized setting.

**Table 3-3. Current (No Action) ROS Classification by Acres and Percent<sup>4</sup>**

ROS Classification	Acres	Percent
Pryor Unit		
Rural	0	0%
Roaded Natural	44,055	57%
Semi Primitive Motorized	0	0%
Semi Primitive Non Motorized	33,913	43%
Primitive	0	0%
Beartooth Unit		
Rural	12,676	2%
Roaded Natural	51,830	10%
Semi Primitive Motorized	6,715	1%
Semi Primitive Non Motorized	127,283	25%
Primitive	327,120	62%
District-Wide		
Rural	12,676	2%
Roaded Natural	95,885	16%
Semi Primitive Motorized	6,715	1%
Semi Primitive Non Motorized	161,196	27%
Primitive	327,120	54%

**Recreation Activities – National Visitor Use Monitoring**

The Custer National Forest conducted a National Visitor Use Monitoring (NVUM) survey in 2001-2002 with the data resulting from the survey compiled and made available in 2003. The NVUM

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<sup>4</sup> Calculations were based on National Forest system lands within the District boundary. Acres were derived from GIS mapping. All numbers were rounded to the nearest whole percent.

protocol is designed to be repeated every 5 years. Locations for surveys are established by the Forest based on field observation of potential sites to interview visitors about their activities as they exit the forest, a trail, or developed recreation site. The survey dates, times and places are assigned on a random basis and capture a range of use levels at different sites and areas across the Forest. The schedule is assigned to the Forest by the national NVUM working group. The interviews conducted are voluntary on the part of the participants and confidential regarding identity. The activities and their participation rates are for the Custer National Forest. No further breakdown of this information to portray use at the Ranger District level or to show use differences between the Pryor and Beartooth units is available.

Given the variables involved, random time/location and voluntary participation, activities that are known to occur on the Forest but at relatively minor levels, such a cabin rentals, may not have any identified use percentage.

The following table displays the percentage of use by recreation facility from the NVUM 2003 report.

**Table 3-4. Percentage Use of Facilities and Specially Designated Areas on Custer NF**

Facility/Area Type	Percent who said they used the Custer NF (% Visits)
Hiking, biking, or horseback trails	22.2
Picnic area	17.4
Other forest roads	15.8
Developed campground	15.0
Downhill ski area	14.5
Designated Wilderness	14.4
Developed fishing site/dock	14.4
Scenic byway	13.3
Visitor center, museum	5.5
Forest Service office or other info site	2.0
Motorized developed trails	1.9
Boat launch	1.6
Swimming area	1.1
Organization camp	0.4
Interpretive site	0.3
Recreation residence	0.1
Designated Off Road Vehicle Area	-
Designated snowmobile area	-
Nordic ski area	-
Lodges/Resorts on National Forest System land	-
Fire Lookouts/Cabins Forest Service owned	-
Designated snow play area	-

**Recreation Trends**

Recreational OHV use in Montana grew by 40% in the last decade and is expected to continue to grow (Montana Fish, Wildlife and Parks 2000). Similarly, the analysis area has experienced additional use over the last decade.

**Chapter 3: Affected Environment and Environmental Consequences**

The Forest Service produced a national report on OHV use titled *Off-Highway Vehicle Use on National Forests: Volume and Characteristics of Visitors, Special Report to the National OHV Implementation Team - 5 August 2004*. Data used in this analysis come from the National Visitor Use Monitoring (NVUM) program. The research methodology for this program is documented in a General Technical Report (English, et al., 2002). The first sampling cycle occurred from January 1, 2000 to September 30, 2003. During that period, on-site surveying occurred on nearly 23,000 sample days around the country. Over 90,000 visitors finishing a recreation visit were interviewed about their activities, experiences, length of stay, and demographic characteristics. The survey data shows that OHV use is a specialized use of forests and not a major recreational use for most forests. Slightly more than 2,000 of surveyed visitors indicated OHV use was a primary activity, and a little less than 5,400 indicated participation in OHV activity during their visit.

Nationally, about 2.5% (5.2 million visits) of the 205 million recreational visits identified National Forest OHV use as their primary activity<sup>5</sup>. A slightly larger percentage (3.1%) has OHV use as a secondary activity. That is, about 6.3 million visitors reported participating in OHV use, but not as their primary activity. These would include people who engaged in OHV riding during their visits, but who came to the forest primarily for some other activity.

The total numbers of National Forest visits that have OHV use as either a primary or secondary activity is about 11.5 million. The estimates of primary OHV use visitation are similar for most National Forest regions (range 12 – 16% of the national total), except Region 1 and 10. Only 5% (about 274,000 visits) of the total primary OHV use for all National Forests occurs on forests in Region 1. None of the visitors surveyed in Region 10 (Alaska) indicated that OHV use was their primary recreational activity.

The following table displays the OHV participation visitation and percentage rates for all forests in Region 1 as taken from the subject report. The most recent percentage of OHV use for the Custer National Forest is 3.16% of the total recreation use.

**Table 3-5. OHV Participation (Visitation and Rates) by Northern Region Forest**

Northern Region Forest	OHV Primary		OHV Participation	
	Visits	%	Visits	%
Beaverhead Deerlodge	50,116	4.26	75,099	6.39
Bitterroot	2,358	0.32	19,199	2.61
Clearwater	38,829	3.56	214,628	19.67
Custer	15,850	1.98	25,263	3.16
Dakota-Prairie	10,134	1.54	25,443	3.88
Flathead	2,611	0.2	12,412	0.93
Gallatin	23,078	1.14	67,719	3.34
Helena	19,735	3.75	51,867	9.85

<sup>5</sup> Percentages presented here include visitors who did not provide information on their primary and/or secondary recreation activities. Using just those who did provide that information as a base yields primary OHV use at 3.0%, and those listing OHV as a secondary activity at 3.5%. (English: Off-Highway Vehicle Use on National Forests: Volume and Characteristics of Visitors, Special Report to the National OHV Implementation Team - 5 August 2004)

**Table 3-5. OHV Participation (Visitation and Rates) by Northern Region Forest**

Northern Region Forest	OHV Primary		OHV Participation	
	Visits	%	Visits	%
Idaho Panhandle	49,094	5.63	132,547	15.19
Kootnai	13,925	1.02	23,870	1.75
Lewis and Clark	7,556	1.36	39,675	7.13
Lolo	21,484	1.48	57,407	3.96
Nez Perce	19,665	3.12	83,756	13.3
Northern Region Total	274,434	2.08	828,885	6.27

In 2001, the Greater Yellowstone Coordinating Committee commissioned an Interagency Working Group made up of recreation and resource specialists from the six National Forests, two National Parks and two National Wildlife Refuges that make up the Greater Yellowstone Area (GYA) to develop a report on the recreation use for the GYA. The GYA includes the Bridger-Teton, Caribou-Targhee, Gallatin, Shoshone National Forests, portions of the Beaverhead-Deerlodge and Custer National Forests, Grand Teton and Yellowstone National Parks, Red Rock Lakes and National Elk Wildlife Refuges.

Recreation in the Greater Yellowstone Area: A Technical Report – 2006 included recreation trend information that is of some use in attempting to predict outdoor recreation future needs for the analysis area. The following recreation trend information is taken from this report.

*Trends in Specific Recreation Activities*

Within the context of broad societal trends, a number of developments are apparent in regard to specific recreation activities. Recently, a decline in overall participation in outdoor activities has been noted, attributed partially to the growth of leisure choices now available such as the Internet and satellite TV (Roper 2003). Despite this recent trend, with increasing population and growth in income outdoor recreation participation is expected to grow (Cordell 1999). This is especially true for the GYA where population growth is partly fueled by interest in pursuing outdoor recreation opportunities. Cordell and others (1999) have built models to project future participation in particular recreation activities by region. These models incorporate information on behavioral characteristics that are linked to participation in specific activities; current data on participation in specific activities; demographic factors such as population, age and income; and supply factors such as the proximity and availability of specific recreation opportunities.

The recreation trend information from this report can be used to calculate the percentage of increased use by activity over the thirty year period 2000 – 2030. These percentages in turn can be interpolated to calculate a percentage of increased use by activity for the 2008 - 2018 time frame of this analysis. As an example: Hiking and walking averaged together for the 2000 – 2030 timeframe results in an increase of 24% over 30 years or 8.0% over 10 years. The following table utilizes this information and combines it with the NVUM 2003 Custer National Forest data to calculate estimated visitation figures by the four most common motorized and non motorized recreation activities on the District.

**Table 3-6. Beartooth District Recreation Use by Activity Projections**

Activity Type	Use % <sup>6</sup>	2002 Visits	2008 Visits	10 year %	2018 Visits
Hiking or walking	47.8	271,866	284,916	8	307,709
Wildlife Viewing	52.2	296,892	328,956	18	388,168
Biking	4.3	24,457	25,633	8	27,684
Fishing	23.7	134,796	140,940	11	156,443
OHV Use	2.9	16,494	17,244	8	18,624
Horseback Riding	0.4	2,275	2,377	7.6	2,558
Developed Camping	16.5	93,845	99,251	10	109,176
Dispersed Camping	4.2	23,888	24,848	6.7	26,513

These projections are based on data contained in the Recreation in the Greater Yellowstone Area – A Technical Report 2006, and the NVUM data for the Custer National Forest gathered during 2001-2002. The 2003 NVUM Report estimated the use on the Custer National Forest at 758,344 visitors. The 2004 Off-Highway Vehicle Use on National Forests Special Report shows the Custer National Forest percentage of OHV use at 3.16% rather than the 2.9% displayed above. It is reasonable to assume the small difference in this figure would not greatly change this analysis.

*Motorized Congestion*

The Forest is unaware of any existing data that specifically assess whether motorized congestion on the District is impacting recreation experience. Motorized congestion has not been viewed by the Forest as a particular problem in the past. There are motorized routes in the Main Fork of Rock Creek drainage that are heavily used by recreationists and it is common to see other motorized traffic when traveling these routes during the summer season. For the most part, motorized traffic is much less frequent on other parts of the District. Throughout the District, the highest use occurs on weekend days during the summer season. Since motorized use of the District is anticipated to continue to increase in the future, the quality of future motorized experiences may be more affected by motorized congestion in the future, but the exact degree of the potential effects is uncertain.

**3.2.1.2 Environmental Consequences - Recreation**

The following charts and tables provide a summary of the ROS settings by acres and miles for each alternative. These are used to form the analytical basis for comparing the alternatives described in Chapter 2.

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<sup>6</sup> Use percentages from the Custer N.F. 2003 NVUM Report

Chart 3-2. Acres of Motorized and Non-Motorized Recreation Opportunities - Beartooth Unit by Alternative.

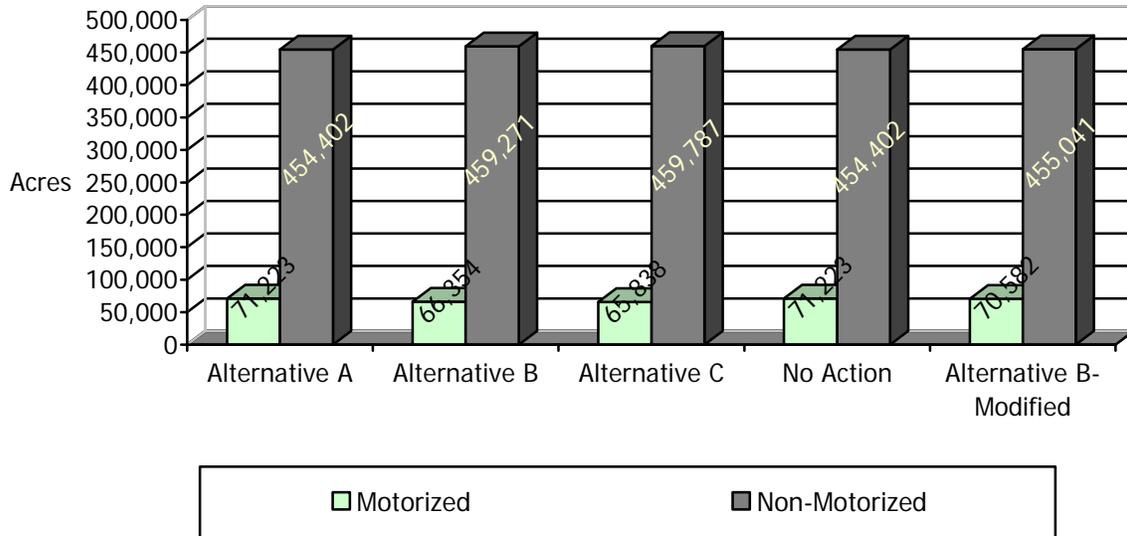
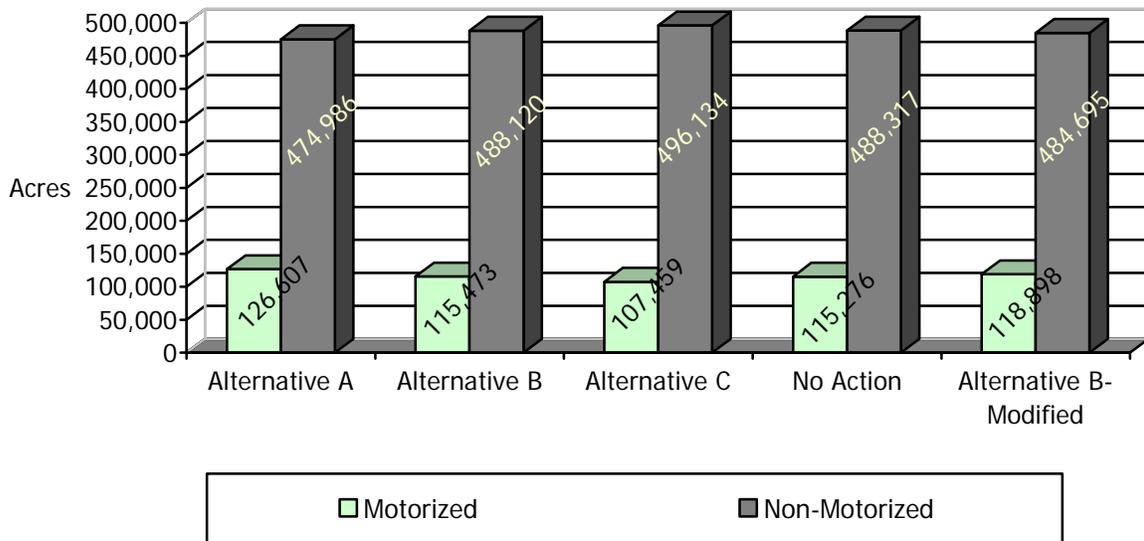


Chart 3-3. Acres of Motorized and Non-Motorized Recreation Opportunities for the entire District.



**Table 3-7. ROS Setting by Alternative (percent/acres)**

ROS Setting	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
<b>Pryors Unit (77,969)</b>					
Rural	0%	0%	0%	0%	0%
Roaded Natural	25% (19,399)	33% (25,739)	53% (41,621)	56% (44,055)	33% (25,875)
Semi-Primitive Motorized	46% (35,985)	30%(23,380)	0%	0%	29%(22,439)
Semi-Primitive Non-Motorized	29% (22,584)	37% (28,849)	47% (36,347)	43% (33,913)	38% (29,654)
Primitive	0%	0%	0%	0%	0%
<b>Beartooth Unit (525,625 acres)</b>					
Rural	2% (12,676)	2% (12,676)	2% (12,676)	2% (12,676)	2% (12,205)
Roaded Natural	10% (51,832)	10% (51,830)	10% (51,314)	10% (51,830)	10% (52,307)
Semi-Primitive Motorized	1% (6,715)	<1% (1,848)	<1% (1,848)	1% (6,715)	1% (6,072)
Semi-Primitive Non-Motorized	25% (127,281)	25% (132,150)	25% (132,666)	25% (127,283)	24% (127,920)
Primitive	62% (327,121)	62% (327,121)	62% (327,121)	62% (327,121)	62% (327,121)
<b>District-Wide (603,593 acres)</b>					
Rural	2% (12,676)	2% (12,676)	2% (12,676)	2% (12,676)	2% (12,205)
Roaded Natural	12% (71,231)	13% (77,569)	15% (92,935)	16% (95,885)	13% (78,182)
Semi-Primitive Motorized	7% (42,700)	4% (25,228)	<1% (1,848)	1% (6,715)	5% (28,511)
Semi-Primitive Non-Motorized	25% (149,865)	27% (160,999)	28% (169,013)	27% (161,196)	26% (157,574)
Primitive	54% (327,121)	54% (327,121)	54% (327,121)	54% (327,121)	54% (327,121)

**Table 3-8. Summary of Miles of System Roads and Trails by Type of Public Use Designation by Alternative**

Type of Use	Alternative A	Alternative B	Alternative C	No Action	Modified Alternative B
<b>Road Designation Type</b>					
All types allowed (motorized mixed use)	28	27	0	0	52
Highway legal vehicles	197	185	198	279	158
Subtotal	225	212	198	279	210
<b>Motorized Trail Designation Type</b>					
All types allowed	110	50	0	0	49
Less than 50 inches only	2	2	0	2	2
Motorcycles only	6	0	0	6	6
Subtotal	118	52	0	8	57
<b>Motorized - Total Miles</b>	<b>341</b>	<b>261</b>	<b>198</b>	<b>287</b>	<b>267</b>
<b>Non-Motorized Trail Designation Type</b>					
All types allowed	91	98	96	88	88

**Table 3-8. Summary of Miles of System Roads and Trails by Type of Public Use Designation by Alternative**

Type of Use	Alternative A	Alternative B	Alternative C	No Action	Modified Alternative B
Pedestrian/hiking use only	8	9	9	6	6
Pedestrian/hiking, and pack and saddle stock use only	177	177	183	177	176
Pedestrian/hiking and mechanized use only	3	3	0	3	3
<b>Non-Motorized – Total Miles</b>	<b>279</b>	<b>287</b>	<b>288</b>	<b>274</b>	<b>273</b>

***Direct and Indirect Effects - Recreation***

**Alternative A**

*Recreation Opportunity Spectrum*

Chart 3-1 indicates that the **Pryor Unit** would consist of 71 percent (55,384 acres) in motorized settings, and 29 percent (22,584 acres) non-motorized settings.

Chart 3-2 indicates the **Beartooth Unit** would contain 13 percent (71,223 acres) in motorized settings, and 87 percent (454,402) in non-motorized settings.

Chart 3-3 indicates the **District** would contain 21 percent (126,607 acres) in motorized settings, and 89 percent (474,986 acres) in non-motorized settings. The specific breakdown of ROS settings are provided in Table 3-7.

Chart 3-4 displays the miles of motorized and non-motorized recreation opportunities that would be available under Alternative A. Details on miles of each type of opportunity provided (i.e. motorized trails, hiking trails, etc.) are provided in Table 3-8.

Chart 3-4. Miles of Motorized and Non-Motorized Recreation Opportunities - Alternative A.



Alternative A has season of use restrictions in the Beartooth Unit. There are 7 miles of roads that have season of use restrictions starting September 30 and ending May 15. These restrictions close ten campgrounds to motorized uses during the time they are in effect. Alternative A has 15 miles roads that have season of use restrictions starting December 1 and ending April 15. These restrictions provide winter range protection for big game or reduce conflicts with motorized uses during the time they are in effect. Alternative A has 12 miles of roads with season of use restrictions starting March 31 and ending July 16. The restrictions provide consistent management with shared roads onto the Gallatin N.F. The acres available and miles of roads associated with these restrictions would change to a semi-primitive non-motorized setting open to all non-motorized uses during the time the restrictions are in place.

*Motorized Opportunities*

Implementation of this alternative would maximize the opportunities for motorized recreation in the Pryor Unit. It provides the second greatest miles of roads and mixed use roads, and the greatest miles of motorized trails in the Pryor Unit. This would be expected to increase the experience for motorized recreationists that chose to utilize the Pryor Unit. In addition, this alternative would be attractive to users, and may attract users, that are seeking semi-primitive motorized types of experiences.

Implementation of this alternative would maximize the opportunities for motorized recreation in the Beartooth Unit. It provides the second greatest miles of roads and mixed use roads, and the greatest

miles of motorized trails in the Beartooth Unit. This would be expected to increase the experience for motorized recreationists that chose to utilize the Beartooth Unit. In addition, this alternative would be attractive to users, and may attract users, that are seeking semi-primitive motorized types of experiences.

Overall, this alternative provides the greatest number of miles of roads and trails for motorized recreation in the analysis area. If motorized use in the analysis area increased substantially, some motorized users could also be displaced to other locations. Suitable areas for displaced motorized users would depend largely upon other travel management decisions made on the Custer and adjacent National Forests.

#### *Non-Motorized Opportunities*

The quality of the outdoor experience for those non-motorized enthusiasts seeking activities in the Pryor Unit would have the greatest potential to be diminished under this alternative. Trend increases in non-motorized activities suggests that there is potential for future demands for these types of experiences to not be met in the Pryor Unit at some point in the future.

This alternative would have the most potential to displace an additional, but unknown percentage, of non-motorized recreationists in the Pryors to other areas. Visitors who prefer to recreate in areas with no motorized use may be able to find suitable areas on the Beartooth Unit, where there is a much greater percentage in non-motorized settings. However, any individuals that are displaced that may also have a strong personal connection to the Pryor Unit are likely to feel adversely impacted.

The quality of the outdoor experience for those non-motorized enthusiasts seeking activities in the Beartooth Unit would have a greater potential to be diminished under this alternative. This alternative would have potential to displace an additional, but unknown percentage, of non-motorized recreationists in the Beartooth Unit to other areas. This percentage is small and would most likely be individuals that have a strong personal connection to the Beartooth Unit and are likely to feel adversely impacted by any motorized activity. Season of use restrictions applying to campgrounds have very limited impacts to non-motorized enthusiasts. Season of use restrictions for other roads in the Beartooth Unit apply to roads during the winter or spring break-up and are accepted by non-motorized enthusiasts due to the corresponding increase in opportunity.

It should be noted that this does not apply to the winter ROS settings which include over-snow vehicle use.

#### *Dispersed Vehicle Camping*

Dispersed vehicle camping activities would not be affected under this alternative when compared to no action, because this alternative allows vehicle access to dispersed campsites up to 300 feet off of designated routes.

#### *Motorized Congestion*

Based strictly on the proposed miles of motorized routes available (54 miles more than the No Action Alternative), this alternative has potential to decrease motorized congestion effects compared to no action by allowing motorized users more opportunities to disperse. The potential would be about equal between the land units, since the proposed mileage would increase equally for each compared to the No Action Alternative.

### Chapter 3: Affected Environment and Environmental Consequences

#### *Other Recreation Activities of Concern*

This alternative would provide the greatest number of roads and trails for scouting and collecting firewood. This alternative provides the maximum opportunity to hunters who desire to retrieve their game by motorized means. In some areas, it provides more hunting opportunities for persons with disabilities, limited mobility, or the elderly. This alternative would provide the least opportunity for non-commercial hunters seeking walk-in only hunting areas. Commercial hunting (outfitter/guide) opportunities may experience higher levels of competition for game where motorized access exists if increased use occurs in those areas. Target shooting activity in the analysis area would be relatively unaffected in this alternative.

#### **Alternative B**

#### *Recreation Opportunity Spectrum*

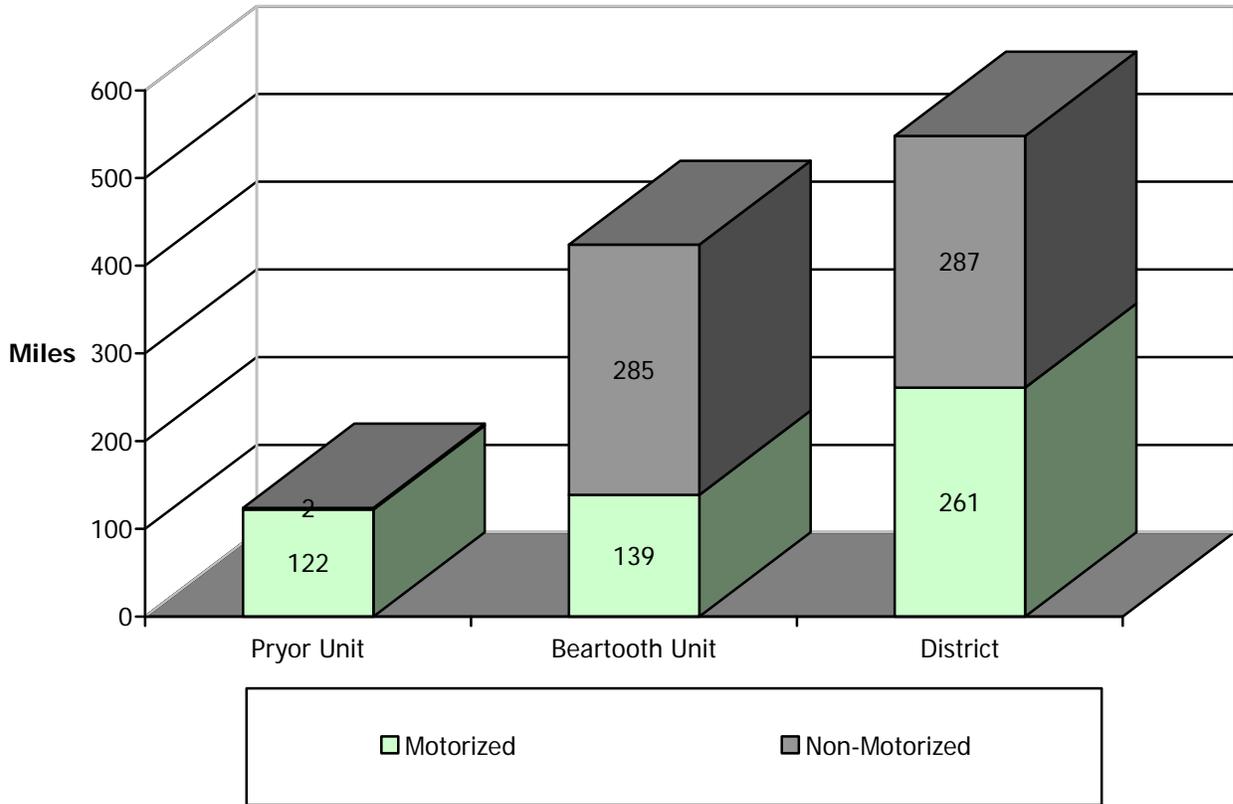
Chart 3-1 indicates the **Pryor Unit** would consist of 63 percent (49,119 acres) in motorized settings, and 37 percent (28,849 acres) in non-motorized settings.

Chart 3-2 indicates the **Beartooth Unit** would contain 13 percent (66,354 acres) in motorized settings, and 87 percent (459,271 acres) in non-motorized settings.

Chart 3-3 indicates the **District** would contain 19 percent (115,473 acres) in motorized settings, and 81 percent (488,120 acres) in non-motorized settings. The specific breakdown of ROS settings are provided in Table 3-7.

Chart 3-5 displays the miles of motorized and non-motorized recreation opportunities that would be available under Alternative A. Details on miles of each type of opportunity provided (i.e. motorized trails, hiking trails, etc.) are provided in Table 3-8.

Chart 3-5. Miles of Motorized and Non-Motorized Recreation Opportunities - Alternative B.



Alternative B has season of use restrictions in the Beartooth Unit. Alternative B has 60 miles of routes with a June 15 to April 15 season of use. Alternative B has 19 miles of routes that have a season of use from April 15 to December 1 for winter range protection for big game or reduce conflicts with motorized uses during the time they are in effect. Alternative B also has 12 miles of roads with a season of use from July 16 to March 31 to provide consistent management with shared roads with the Gallatin N.F. The acres available and miles of routes associated with these seasons of use would change to a semi-primitive non-motorized setting open to all non-motorized uses during the time that motor vehicles are prohibited from using the routes.

Alternative B has 12 miles of trails that have pack and saddle stock use restrictions yearlong for overnight use. The restrictions eliminate overnight camping for users holding stock in areas impacted by high overall camping use. The acres and miles of trails associated with these restrictions in the primitive setting remain in the same setting.

*Motorized Opportunities*

Implementation of this alternative would provide the second lowest opportunities for motorized recreation in the Pryor Unit. It provides the second greatest miles of roads, the second greatest miles of motorized trails, and the second lowest miles of mixed use roads in the Pryor Unit. This would be expected to provide a better experience than Alternative C or the No Action Alternative due to the mixed use roads which provide more loop opportunities for motorized recreationists that chose to

### Chapter 3: Affected Environment and Environmental Consequences

utilize the Pryor Unit. This alternative would provide a less attractive experience to users seeking semi-primitive motorized types of experiences than Alternative A or Modified Alternative B.

Implementation of this alternative would minimize the opportunities for motorized recreation in the Beartooth Unit. It provides the second greatest miles of roads and mixed use roads, and the second lowest miles of motorized trails in the Beartooth Unit. This would be expected to provide a better experience than Alternative C due to the mixed use roads which provide more opportunities for motorized recreationists that chose to utilize the Beartooth Unit. This alternative would provide a less attractive experience to users seeking semi-primitive motorized types of experiences than Alternative A or Modified Alternative B. This alternative would provide a less attractive experience to users seeking single track motorcycle only experiences than the No Action Alternative.

Overall, this alternative provides the second lowest number of miles of roads and trails for motorized recreation in the analysis area. If motorized use in the analysis area increased substantially in the future, some motorized users could potentially be displaced to other locations possibly due to congestion. Suitable areas for displaced motorized users would depend largely upon other travel management decisions made on the Custer and adjacent National Forests.

It is important to note a small change in the percentage of ROS acres available for semi-primitive non-motorized use in the Beartooth Unit. This change will be important to motorcycle users under this alternative. Trail #22 Lodgepole and Trail #27 Meyers Creek would be changed from motorcycle, single track trails to non-motorized trails. This represents the loss of the only motorcycle trails on the District. Motorcyclists will still be able to use other motorized routes on the District, but these routes do not provide a similar experience since they are ATV width to road-width routes rather than single track trails.

#### *Non-motorized Opportunities*

The quality of the outdoor experience for those non-motorized enthusiasts who wish to recreate in the Pryors would be slightly diminished in this alternative due to the slightly reduced percentage of acres available for semi-primitive non-motorized recreation, as compared to no action. The period of time this would be most noticeable is from June 15 to December 15 when all motorized designated routes in the Pryors would be open to use. Approximately sixty miles of roads and trails would move from a motorized to a non-motorized setting during the six months of the year providing an increase in non-motorized acres during that time.

This alternative would have the second lowest potential, when compared to the other alternatives, to displace an additional, but unknown percentage, of non-motorized recreationists to other areas. Visitors who prefer to recreate in areas with no motorized use should be able to find other suitable areas on the District. However, any individuals that are displaced that may also have a strong personal connection to the Pryor Unit are likely to feel adversely impacted.

The quality of the outdoor experience for those non-motorized enthusiasts seeking activities in the Beartooth Unit would have little potential to be diminished under this alternative. This alternative would have little potential to displace an additional, but unknown percentage, of non-motorized recreationists in the Beartooth Unit to other areas. This percentage is small and would most likely be individuals that have a strong personal connection to the Beartooth Unit and are likely to feel adversely impacted by any motorized activity. Season of use restrictions applying to campgrounds have very limited impacts to non-motorized enthusiasts. Season of use restrictions for other roads in the Beartooth Unit apply to roads during the winter or spring break-up and are accepted by non-

motorized enthusiasts due to the corresponding increase in opportunity.

#### *Dispersed Vehicle Camping*

This alternative allows for off-route travel to access dispersed campsites up to 300 feet off of designated routes except along system road #2421 (Main Fork of Rock Creek) and system road #2071 (West Fork of Rock Creek). One hundred sixty-six dispersed camping sites in Montana and seven (7) dispersed camping sites in Wyoming (Shoshone National Forest) were inventoried along system road #2421 Main Fork of Rock Creek. Resource concerns were identified in 28 of the 166 dispersed camping sites leaving 138 camping sites that would become designated sites under this alternative. This would reduce the number of dispersed campsites along system road #2421 Main Fork of Rock Creek by 17% of the available sites for designation and off-route travel. This will affect opportunities for dispersed vehicle camping along this drainage. On busy summer weekend days, forest visitors may not be able to find a dispersed vehicle site to use. Most likely some visitors are unable to find desirable sites at this time, and this is likely to increase under this alternative.

The 100 foot setback for dispersed camp sites from streams along system road #2071 West Fork of Rock Creek is not a part of this analysis as it is in the current Forest Plan. A Forest Order would be required to implement the setback.

#### *Motorized Congestion*

Based strictly on the proposed miles of motorized routes available (26 miles less than the No Action Alternative), Alternative B has potential to slightly increase motorized congestion effects compared to no action by resulting in slightly less opportunities for motorized users to disperse. The Beartooth Unit would essentially remain unchanged compared to the No Action Alternative (one additional mile), while the Pryor Unit has potential to increase (27 miles less than no action).

#### *Other Recreation Activities*

This alternative would provide the second lowest number of roads and trails for scouting and collecting firewood. This alternative provides the second lowest opportunity to hunters who desire to retrieve their game by motorized means. In some areas, it provides more hunting opportunities for persons with disabilities, limited mobility, or the elderly as compared to no action. This alternative would provide the second greatest opportunity for non-commercial hunters seeking walk in only hunting areas. Commercial hunting (Outfitter/Guide) opportunities may experience higher levels of competition for game where motorized access exists if increased use occurs in those areas. This alternative could reduce commercial hunting opportunities on those trails segments designated for day use only, however drop camps would still be allowed. Prohibiting stock use on .58 miles of the Crow Lake trail would have an impact to stock users. Target shooting activity in the analysis area would be relatively unaffected in this alternative.

### **Alternative C**

#### *Recreation Opportunity Spectrum*

Chart 3-1 indicates the **Pryor Unit** would consist of 53 percent (41,621 acres) in motorized settings, and 47 percent (36,347 acres) non-motorized settings.

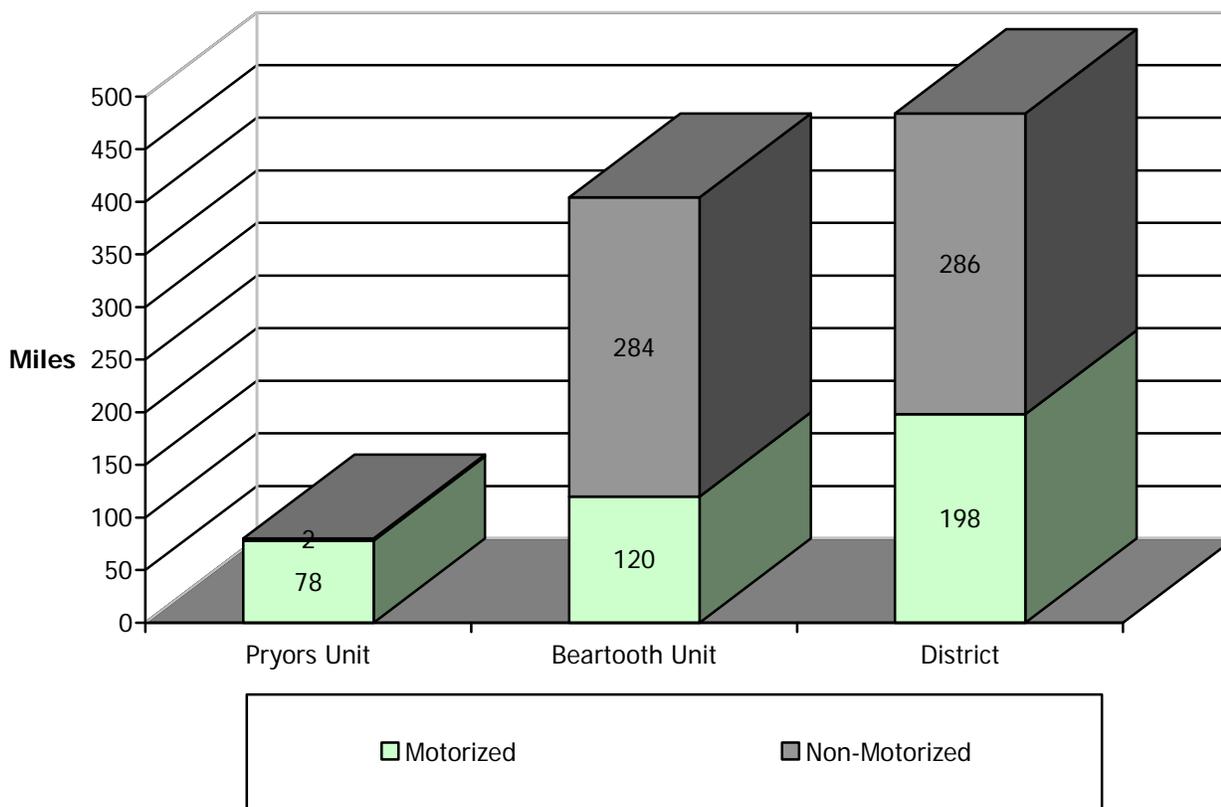
The **Beartooth Unit** would contain less than 13 percent (65,868 acres) in motorized settings, and 87 percent (459,787 acres) in non-motorized settings, as shown in Chart 3-2.

### Chapter 3: Affected Environment and Environmental Consequences

Chart 3-3 indicates the **District** would contain 18 percent (107,459 acres) in motorized settings, and 82 percent (496,134 acres) in non-motorized settings. The specific breakdown of ROS settings are provided in Table 3-7.

Chart 3-6 displays the miles of motorized and non-motorized recreation opportunities that would be available under Alternative A. Details on the miles of each type of opportunity provided (i.e. motorized trails, hiking trails, etc.) are in Table 3-8.

Chart 3-6. Miles of Motorized and Non-Motorized Recreation Opportunities - Alternative C.



Alternative C has season of use restrictions that will increase non-motorized recreation opportunities on the District during the period when motorized vehicles are prohibited. Alternative C has 20 miles of routes with a June 15 to April 15 season of use. Alternative C has 15 miles of routes that have a season of use from April 15 to December 1 for winter range protection for big game or reduce conflicts with motorized uses during the time they are in effect. Alternative C also has 7 miles of roads with a season of use from July 16 to March 31 to provide consistent management with shared roads with the Gallatin N.F. The acres available and miles of routes associated with these seasons of use would change to a semi-primitive non-motorized setting open to all non-motorized uses during the time that motor vehicles are prohibited from using the routes.

Alternative C has 12 miles of trails that have pack and saddle stock use restrictions yearlong for

overnight use. The restrictions eliminate overnight camping for users holding stock in areas impacted by high overall camping use. The acres and miles of trails associated with these restrictions in the primitive setting remain in the same setting.

*Motorized Opportunities*

Implementation of this alternative would provide the lowest opportunities for motorized recreation in the Pryor Unit. It provides the lowest miles of roads, no miles of motorized trails, and no miles of mixed use roads in the Pryor Unit. This would be expected to provide the lowest level of experience for motorized recreationists that chose to utilize the Pryor Unit.

Implementation of this alternative would have the greatest reduction of opportunities for motorized recreation in the Beartooth Unit. It provides the lowest miles of roads, no mixed use roads, and no motorized trails in the Beartooth Unit. This would be expected to provide the lowest level of experience for motorized recreationists that chose to utilize the Beartooth Unit.

Overall, this alternative provides the lowest number of miles of roads and trails for motorized recreation in the analysis area. If motorized use in the analysis area increased substantially in the future, some motorized users could potentially be displaced to other locations possibly due to congestion sooner than in the other Alternatives. Suitable areas for displaced motorized users would depend largely upon other travel management decisions made on the Custer and adjacent National Forests.

*Non-motorized Opportunities*

The quality of non-motorized experiences in the Pryor Unit under this alternative is expected to be enhanced over all other alternatives. Fewer road miles and larger non-motorized areas would provide a greater potential to meet the experiences sought by non-motorized recreationists. This alternative would have the least potential to displace an additional, but unknown percentage, of non-motorized recreationists to other areas. In fact, the quantity of semi-primitive non-motorized settings may attract those who prefer these experiences. The period of time this would be most noticeable is from April 1 to June 15 when an additional 19 miles of designated roads in the Pryors would be closed to use. The 19 miles of roads would move from a motorized to a non-motorized setting during these two and half months of the year providing an additional increase in non-motorized acres during that time.

The quality of the outdoor experience for those non-motorized enthusiasts seeking activities in the Beartooth Unit would be expected to be enhanced over all other alternatives. Fewer road miles and no motorized trails would lead to larger non-motorized areas providing a greater potential to meet the experiences sought by non-motorized recreationists. Season of use restrictions applying to campgrounds have very limited impacts to non-motorized enthusiasts. Season of use restrictions for other roads in the Beartooth Unit apply to roads during the winter or spring break-up and are accepted by non-motorized enthusiasts due to the corresponding increase in opportunity.

It should be noted that this does not apply to the winter ROS settings which include over-snow vehicles.

*Dispersed Vehicle Camping*

Access to dispersed camp sites up to 300 feet off of designated roads would not occur in this alternative. Vehicles would be limited to one car length from the road. This alternative would have the most adverse impacts on dispersed vehicle camping of any of the alternatives. This has a high potential to displace recreationists to other developed and undeveloped camping opportunities in the

### Chapter 3: Affected Environment and Environmental Consequences

area.

#### *Motorized Congestion*

Based strictly on the proposed miles of motorized routes available (89 miles less than the No Action Alternative), Alternative C has potential to increase motorized congestion effects compared to no action by resulting in less opportunities for motorized users to disperse. The Beartooth Unit has the potential for a slight increase in congestion compared to the No Action Alternative (18 less miles), while the Pryor Unit has more potential to increase (71 miles less than no action).

#### *Other Recreation Activities*

This alternative would eliminate all off route wheeled motor vehicle travel to access dispersed recreation opportunities including target shooting for everyone including those individuals with disabilities. This alternative would provide the least number of roads and trails for scouting and collecting firewood. This alternative would provide the least number of roads and motorized trails to access dispersed recreation opportunities for those individuals with disabilities. This alternative would provide the least number of roads and trails for game retrieval and disabled hunter access. This alternative provides the lowest opportunity to hunters who desire to retrieve their game by motorized means. In some areas, it provides lower hunting opportunities for persons with disabilities, limited mobility, or the elderly. This alternative would provide the greatest opportunity for non commercial hunters seeking walk in only hunting areas. Commercial hunting (Outfitter/Guide) opportunities would generally experience lower levels of competition for game due to the least number of designated roads and trails. This alternative could reduce commercial hunting opportunities on those trails segments designated for day use only, however drop camps would still be allowed. Prohibiting stock use on 0.58 miles of the Crow Lake trail would have an impact to stock users.

### **No Action Alternative**

#### *Recreation Opportunity Spectrum*

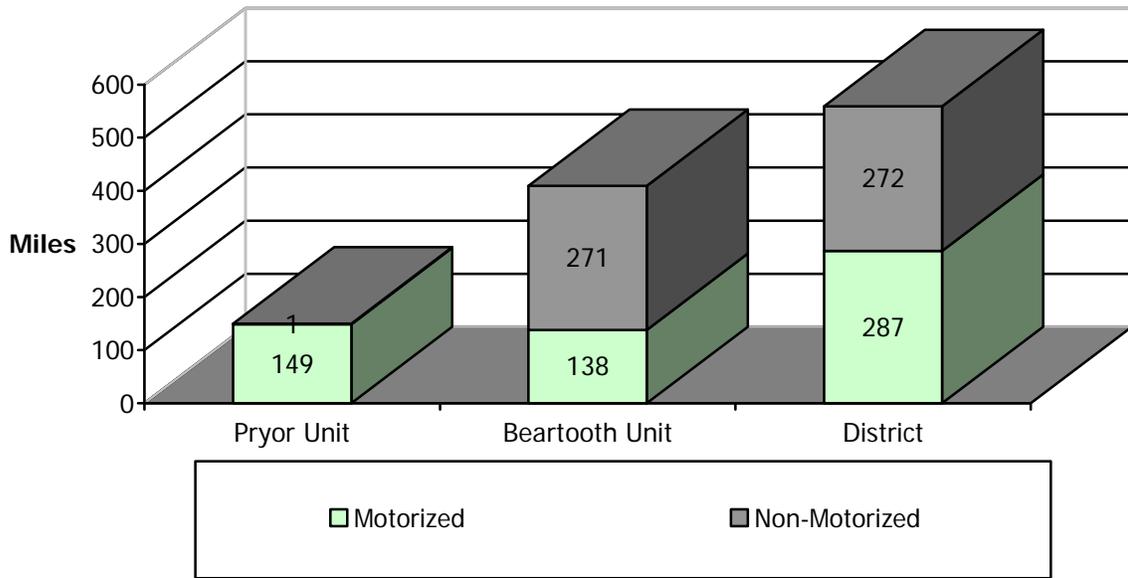
The **Pryor Unit** would consist of 56 percent (44,055 acres) in motorized settings, and 43 percent (33,913 acres) in non-motorized settings as displayed in Chart 3-1.

Chart 3-2 indicates that the **Beartooth Unit** would contain 13 percent (71,223 acres) in motorized settings, and 87 percent (454,402 acres) in non-motorized settings.

Chart 3-3 indicates the **District** would contain 19 percent (115,276 acres) in motorized settings, and 81 percent (488,317 acres) in non-motorized settings. The specific breakdown of ROS settings are provided in Table 3-7.

Chart 3-7 displays the miles of motorized and non-motorized recreation opportunities that would be available under Alternative A. Details on miles of each type of opportunity provided (i.e. motorized trails, hiking trails, etc.) are provided in Table 3-8.

Chart 3-7. Miles of Motorized and Non-Motorized Recreation Opportunities - No Action Alternative.



The No Action Alternative has season of use restrictions in the Beartooth Unit. The No Action Alternative has 15 miles roads that have season of use restrictions starting December 1 and ending April 15. These restrictions provide winter range protection for big game or reduce conflicts with motorized uses during the time they are in effect. The acres available and miles of roads associated with these restrictions would change to a semi-primitive non-motorized setting open to all non-motorized uses during the time the restrictions are in place.

*Motorized Opportunities*

Implementation of this alternative would provide the second lowest opportunities for motorized recreation in the Pryor Unit. It provides the second lowest miles of roads, no miles of motorized trails, and no miles of mixed use roads in the Pryor Unit. This would be expected to provide the second lowest level of experience for motorized recreationists that chose to utilize the Pryor Unit.

Implementation of this alternative would minimize the opportunities for motorized recreation in the Beartooth Unit similar to Modified Alternative B. It provides the second greatest miles of roads but no mixed use roads. This alternative has the same miles of motorized trails as Alternative A in the Beartooth Unit. This would be expected to provide a better experience than Alternative C due to the motorized trails which provide more opportunities for motorized recreationists that chose to utilize the Beartooth Unit. This alternative would provide a less attractive experience to users seeking semi-primitive motorized types of experiences than Alternative A. This alternative would provide a more attractive experience to users seeking single track motorcycle only experiences than Alternative B.

Overall, the No Action alternative provides the second greatest number of miles of roads and the second lowest number of trails for motorized recreation in the analysis area. Motorized opportunities apply to highway legal motor vehicles and OHVs which makes this alternative closer to Alternative C in overall opportunities. If motorized use in the analysis area increased substantially in the future, some motorized users could potentially be displaced to other locations possibly due to congestion

### **Chapter 3: Affected Environment and Environmental Consequences**

sooner than other Alternatives except Alternative C. Suitable areas for displaced motorized users would depend largely upon other travel management decisions made on the Custer and adjacent National Forests.

#### *Non-motorized Opportunities*

The quality of non-motorized experiences in the Pryor Unit under this alternative is expected to be similar to Alternative C. Fewer road miles and larger non-motorized areas would provide a greater potential to meet the experiences sought by non-motorized recreationists. This alternative would have the similar potential to displace an additional, but unknown percentage, of non-motorized recreationists to other areas as Alternative C. The exception is period of time this would be most noticeable would be less than Alternative C. The period of time this would be noticeable is from September 1 to June 30 when an additional 3 miles of designated roads in the Pryors would be closed to use in Mill Hollow. The 3 miles of roads would move from a motorized to a non-motorized setting providing an additional increase in non-motorized acres during that time.

The quality of the outdoor experience for those non-motorized enthusiasts seeking activities in the Beartooth Unit would be mixed compared to other alternatives. Fewer road miles, no mixed use roads and motorized trails would lead to a small gain in the size of non-motorized areas providing a limited potential to meet the experiences sought by non-motorized recreationists. Season of use restrictions for other roads in the Beartooth Unit apply to roads during the winter or spring break-up and are accepted by non-motorized enthusiasts due to the corresponding increase in opportunity.

It should be noted that this does not apply to the winter ROS settings which include over-snow vehicles.

#### *Dispersed Vehicle Camping*

Access to dispersed camp sites up to 300 feet off of designated roads would occur in this alternative and would be similar to Alternative A.

#### *Motorized Congestion*

Motorized congestion would be as described in the affected environment.

#### *Other Recreation Activities*

The No Action Alternative eliminates all off route wheeled motor vehicle travel to access dispersed recreation opportunities including target shooting for everyone including those individuals with disabilities. This alternative would provide the least number of roads and trails for scouting and collecting firewood. This alternative would provide the least number of roads and motorized trails to access dispersed recreation opportunities for those individuals with disabilities. This alternative would provide the least number of roads and trails for game retrieval and disabled hunter access. This alternative provides the lowest opportunity to hunters who desire to retrieve their game by motorized means. In some areas, it provides lower hunting opportunities for persons with disabilities, limited mobility, or the elderly. This alternative would provide the greatest opportunity for non commercial hunters seeking walk in only hunting areas. Commercial hunting (Outfitter/Guide) opportunities would generally experience lower levels of competition for game due to the least number of designated roads and trails.

**Alternative B Modified**

*Recreation Opportunity Spectrum*

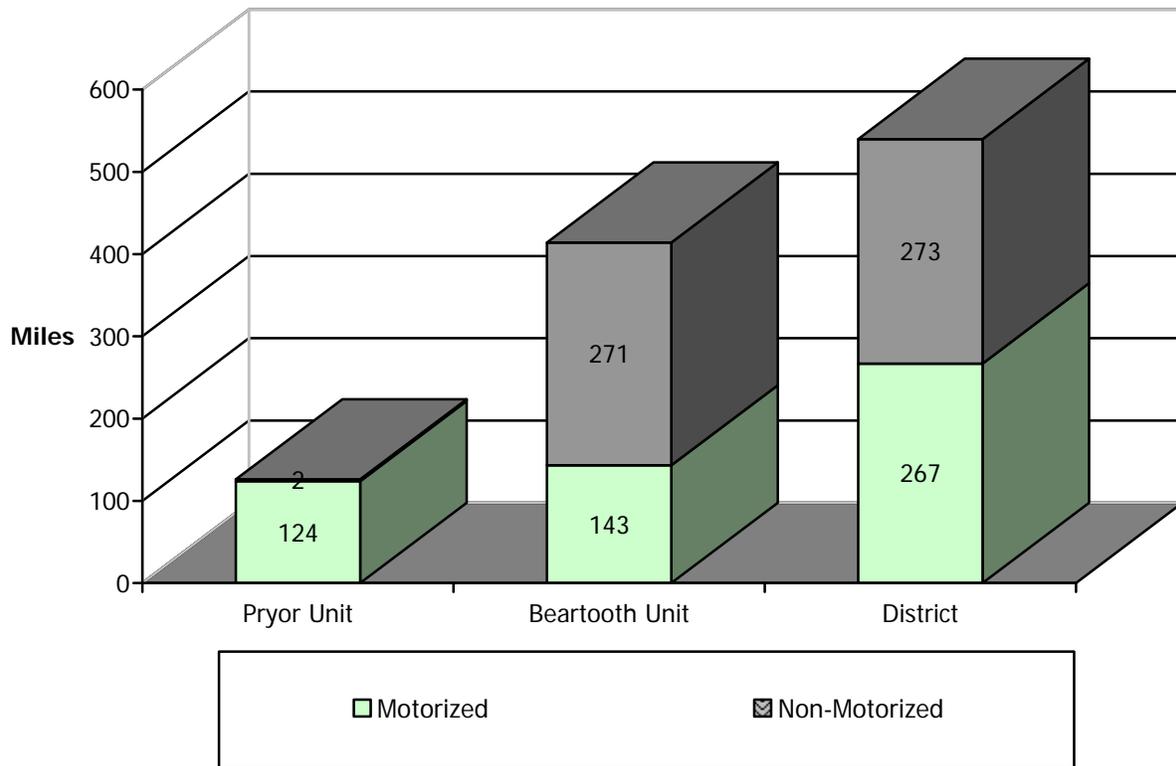
The **Pryor Unit** would consist of 62 percent (48,314 acres) in motorized settings, and 38 percent (29,654 acres) in non-motorized settings as displayed Chart 3-1.

Chart 3-2 indicates the **Beartooth Unit** would contain 13 percent (70,582 acres) of motorized settings, and 87 percent (455,041 acres) in non-motorized settings.

Chart 3-3 indicates the **District** would contain 20 percent (118,898 acres) of motorized settings, and 80 percent (484,695 acres) in non-motorized settings. The specific breakdown of ROS settings are provided in Table 3-7.

Chart 3-8 displays the miles of motorized and non-motorized recreation opportunities that would be available under Alternative A. Details on the miles of each type of opportunity provided (i.e. motorized trails, hiking trails, etc.) are in Table 3-8.

Chart 3-8. Miles of Motorized and Non-Motorized Recreation Opportunities - Modified Alternative B.



Alternative B Modified has season of use restrictions that will increase non-motorized recreation opportunities on the District during the period when motorized vehicles are prohibited. Alternative B Modified has 15 miles of routes with a June 15 to April 15 season of use and 43 miles of routes with a season of use of May 22 to April 15 in the Pryors Unit. Alternative B Modified has 19 miles of routes

### **Chapter 3: Affected Environment and Environmental Consequences**

that have a season of use from April 15 to December 1 for winter range protection for big game or reduce conflicts with motorized uses during the time they are in effect. Alternative B Modified has 6 miles of motorcycle trails with a season of use from June 15 to December 1 to provide winter range and spring calving protection for big game. The acres available and miles of routes associated with these seasons of use would change to a semi-primitive non-motorized setting open to all non-motorized uses during the time that motor vehicles are prohibited from using the routes.

#### *Motorized Opportunities*

Implementation of this alternative would provide the third greatest opportunities for motorized recreation in the Pryor Unit. It provides the third greatest miles of roads, the third greatest miles of motorized trails, and the second greatest miles of mixed use roads in the Pryor Unit. This would be expected to provide a better experience than Alternatives B, C, or No Action due to the greater number of mixed use roads which provide more loop opportunities for motorized recreationists that chose to utilize the Pryor Unit. This alternative would provide a less attractive experience to users seeking semi-primitive motorized types of experiences than Alternative A.

Implementation of this alternative would maximize the opportunities for motorized recreation in the Beartooth Unit during the six months of the year when there are no season of use restrictions. It provides the second greatest miles of roads and mixed use roads, and the greatest number miles of motorized trails in the Beartooth Unit. This would be expected to provide a better experience than Alternative B, C and No Action due to the mixed use roads which provide more opportunities for motorized recreationists that chose to utilize the Beartooth Unit. This alternative would provide a less attractive experience to users seeking semi-primitive motorized types of experiences than Alternative A.

Overall, this alternative provides the third greatest number of miles of roads and trails for motorized recreation in the analysis area. If motorized use in the analysis area increased substantially in the future, some motorized users could potentially be displaced to other locations possibly due to congestion. Suitable areas for displaced motorized users would depend largely upon other travel management decisions made on the Custer and adjacent National Forests.

#### *Non-motorized Opportunities*

The quality of the outdoor experience for those non-motorized enthusiasts who wish to recreate in the Pryors may be less diminished in Alternative B Modified due to the increase of 941 acres available for semi-primitive non-motorized recreation, as compared to Alternative B. Approximately fifty-eight miles of roads and trails would move from a motorized to a non-motorized setting providing an increase in non-motorized acres during the time of year the season of use restrictions are in place.

This alternative would have the third lowest potential, when compared to the other alternatives, to displace an additional, but unknown percentage, of non-motorized recreationists to other areas. Visitors who prefer to recreate in areas with no motorized use should be able to find other suitable areas on the District. However, any individuals that are displaced that may also have a strong personal connection to the Pryor Unit are likely to feel adversely impacted.

The quality of the outdoor experience for those non-motorized enthusiasts seeking activities in the Beartooth Unit would have little potential to be diminished under this alternative. This alternative would have little potential to displace an additional, but unknown percentage, of non-motorized recreationists in the Beartooth Unit to other areas. This percentage is small and would most likely be individuals that have a strong personal connection to the Beartooth Unit and are likely to feel

adversely impacted by any motorized activity. Season of use restrictions applying to campgrounds have very limited impacts to non-motorized enthusiasts. Season of use restrictions for other roads in the Beartooth Unit apply to roads during the winter or spring break-up and are accepted by non-motorized enthusiasts due to the corresponding increase in opportunity.

It should be noted that this does not apply to the winter ROS settings which include over-snow vehicles.

#### *Dispersed Vehicle Camping*

This alternative allows for off-route travel to access dispersed campsites up to 300 feet off of designated routes except along system road #2421 (Main Fork of Rock Creek) and system road #2071 (West Fork of Rock Creek). One hundred sixty-six (166) dispersed camping sites in Montana and seven (7) dispersed camping sites in Wyoming (Shoshone National Forest) were inventoried along system road #2421 Main Fork of Rock Creek. Resource concerns were identified in 28 of the 166 dispersed camping sites leaving 138 camping sites that would become designated sites under this alternative. This would reduce the number of dispersed campsites along system road #2421 Main Fork of Rock Creek by 17% of the available sites for designation and off-route travel. This will affect opportunities for dispersed vehicle camping along this drainage. On busy summer weekend days, forest visitors may not be able to find a dispersed vehicle site to use. Most likely some visitors are unable to find desirable sites at this time, and this is likely to increase under this alternative. The 100 foot setback for dispersed camp sites from streams along system road #2071 West Fork of Rock Creek is not a part of this analysis as it is in the current Forest Plan. A Forest Order would be required to implement the setback.

#### *Motorized Congestion*

Based strictly on the proposed miles of motorized routes available (20 miles less than the No Action Alternative), Alternative B has potential to slightly increase motorized congestion effects compared to no action by resulting in slightly less opportunities for motorized users to disperse. The Beartooth Unit would essentially remain unchanged compared to the No Action Alternative (five additional miles), while the Pryor Unit has potential to increase (25 miles less than no action).

#### *Other Recreation Activities*

This alternative would provide the third greatest number of roads and trails for scouting and collecting firewood. This alternative provides the third greatest opportunity to hunters who desire to retrieve their game by motorized means. In some areas, it provides more hunting opportunities for persons with disabilities, limited mobility, or the elderly as compared to no action. This alternative would provide the third greatest opportunity for non-commercial hunters seeking walk in only hunting areas. Commercial hunting (Outfitter/Guide) opportunities may experience higher levels of competition for game where motorized access exists if increased use occurs in those areas. Target shooting activity in the analysis area would be relatively unaffected in this alternative.

#### *Cumulative Effects - Recreation*

### **Recent Travel Management Decisions**

The Forest Service reviewed recent travel management decisions that have potential to impact motorized and non-motorized users of the Beartooth Ranger District. NVUM information indicated that the majority of District visitors come from within 50 miles of the District, primarily the Billings

### **Chapter 3: Affected Environment and Environmental Consequences**

area. Based on public comments on the project and informal discussions with these users, they indicated that they commonly travel to the Gallatin National Forest and Lewis and Clark National Forest to recreate, and to a lesser degree to the Helena National Forest. It is reasonable to assume that travel management on these forests, along with travel management changes on Bureau of Land Management lands in the vicinity of the District, has the potential to cumulatively impact motorized and non-motorized recreation opportunities.

None of the reasonably foreseeable activities identified at the beginning the Chapter 3 are anticipated to cumulatively impact motorized or non-motorized travel-related recreation opportunities.

#### *2001 Tri-State OHV Decision*

The 2001 Tri-State OHV Decision prohibited cross-country vehicle use on Bureau of Land Management and Forest Service lands within Montana, North Dakota, and parts of South Dakota. The ROD for the 2001 Tri-State OHV Decision indicates that cross-country vehicle travel for the Custer, Gallatin, Lewis and Clark, and Helena National Forests was reduced by 64%, 43%, 72%, and 59%, respectively.

#### *Little Belts, Castles, and North Half of the Crazy Mountains Decision*

The Lewis and Clark National Forest (Lewis and Clark NF) decision on the Little Belts, Castles, and North Half of the Crazy Mountains would reduce motorized routes by approximately 884 miles (roughly 39%) compared to the No Action Alternative in that analysis. Non-motorized routes would increase by approximately 227 miles (roughly 65%) in that same decision.

#### *Rocky Mountain District – Birch Creek South*

The Lewis and Clark NF decision on the Rocky Mountain District – Birch Creek South would reduce miles of motorized routes by 143 miles (roughly 45%) compared to no action in the analysis. Non-motorized routes would increase by approximately 118 miles (roughly 86%) in that same decision.

#### *North Belts Decision*

The Helena National Forest's (Helena NF) Record of Decision on the North Belts Travel Planning would reduce the number of miles of motorized routes by approximately 64 miles (roughly 16%) compared to their No Action Alternative.

#### *South Belts Decision*

The Helena NF's South Belts Travel Plan, which addresses motorized use between 5/15 and 12/1, would reduce motorized opportunities by approximately 25 miles (roughly 13%) compared to the No Action Alternative.

#### *Gallatin National Forest Decision*

The Gallatin National Forest's Travel Management Record of Decision states the following:

“The total amount of public open system road would remain generally unchanged (approx. 740 miles); however there would be a shift of about 10% of this system from road currently only suitable for high clearance vehicles to road that would accommodate passenger cars. Currently about 315 miles of road are considered suitable for passenger cars, and under Alternative 7-M it would increase to 400 miles. This alternative also includes objectives to close and restore non-system and user-built roads.

ATV opportunities provided on trails would be reduced from 281 miles to 143 miles (about 50%) and motorcycle opportunities on trails would be reduced from 458 miles to 278 miles (about 40%).”

The miles of non-motorized routes would remain about the same compared to no action.

#### *Bureau of Land Management*

Three recent Bureau of Land Management travel management decisions were identified in the vicinity of the District, including the: Acton Recreation Area OHV Travel Management, Horsethief High Priority Area OHV Travel Management, and Shepard Ah Nei Travel Management decisions. The Acton and Horsethief decisions did not change the miles available for motorized use. The Shepard Ah Nei decision reduced motorized miles in that unit from 50 miles to 44 miles, or by 12%.

#### **Effects**

The alternatives in this analysis represent the following changes in miles of motorized routes compared to the No Action Alternative:

- Alternative A would increase motorized route miles by 54 miles (19% increase)
- Alternative B would decrease motorized route miles by 26 miles (9% decrease)
- Alternative C would decrease motorized route miles by 89 miles (31% decrease)
- Alternative B Modified would decrease motorized route miles by 20 miles (7% decrease)

Alternative A is the only alternative that would not further diminish motorized recreation opportunities in the project vicinity described above. Alternative B and B Modified would have a slight contribution to the reduced number of motorized route miles. Alternative C would contribute the most to the cumulative reduction in motorized route miles.

Recent travel management decisions have resulted in a cumulative increase in miles of non-motorized routes as indicated above, or in other words the decisions have resulted in additional non-motorized recreation opportunities. The relatively modest changes in non-motorized trails proposed in the alternatives (>1% decrease to 5% increase) would not be anticipated to contribute appreciably to these cumulative effects.

Finally, the miles of route changes identified for recent decisions above can roughly be expected to result in a corresponding shift in the associated ROS settings, i.e. percentage change in motorized route miles are likely to yield a similar change in ROS setting, given the strong tie of ROS setting identification with motorized and non-motorized routes. However, the alternatives in this analysis would be expected to have very limited cumulative effects given the minor changes in percentage of District-wide ROS settings among the alternatives as shown in Table 3-7 ( $\leq 2\%$  change in combined motorized [rural + roaded natural + semi-primitive motorized] or combined non-motorized settings [semi-primitive non-motorized + primitive]).

#### **3.2.1.3 Conclusion - Recreation**

The following conclusions are based on the indicators identified in Chapter 2 related to Recreation resources and the analysis in this section.

#### **1) Concerns related to the loss of motorized recreation opportunities.**

### Chapter 3: Affected Environment and Environmental Consequences

**Alternative A** best responds to concerns related to opportunities for motorized recreation, including providing the most miles of system road and trails, most acres in motorized ROS settings, and most loop opportunities on the District and in the Pryor Unit. There would be 126,607 acres in motorized ROS settings and 341 miles of motorized routes on the District, with 55,384 acres in motorized ROS settings and 177 miles of motorized routes in the Pryor Unit.

The remaining alternatives respond to this issue to lesser and varying degrees than Alternative A. Considering the various factors discussed in the above analysis, the remaining alternatives *generally* respond to this indicator in the following order from most to least responsive (District; Pryor Unit):

Alternative B Modified	(118,898 acres/267 miles; 55,384 acres/177 miles)
No Action	(115,276 acres/287 miles; 44,055 acres/149 miles)
Alternative B	(115,473 acres/261 miles; 49,119 acres/124 miles)
Alternative C	(107,459 acres/198 miles; 41,621 acres/79 miles)

#### 2) Concerns related to the loss of non-motorized opportunities.

**Alternative C** best responds to concerns related to opportunities for non-motorized recreation, including providing the most acres in non-motorized ROS settings and non-motorized trails on the District and in the Pryor Unit. There would be 496,134 acres in non-motorized settings and 286 miles of non-motorized trails on the District, and 36,374 acres in non-motorized settings and two miles of non-motorized trails in the Pryor Unit.

The remaining alternatives respond to this issue to a lesser degree than Alternative C. Considering the various factors discussed in the above analysis, the remaining alternatives *generally* respond to this indicator in the following order from most to least responsive [Alternative (District; Pryor Unit)]: (Alternatives B and B Modified are very similar in responsiveness.)

No Action Alternative	(488,317 acres/272 miles; 38,912 acres/1 miles)
Alternative B	(488,120 acres/287 miles; 28,849 acres/2 miles)
Alternative B Modified	(484,695 acres/273 miles; 29,654 acres/2 miles)
Alternative A	(464,986 acres/276 miles; 22,584 acres/2 miles)

#### 3) Concerns related to opportunities for off-highway legal vehicle operation.

**Alternative A** best responds to concerns related to opportunities for unlicensed off-highway vehicle operation, including providing the most miles of motorized mixed use roads and motorized trails. There would be 146 combined miles of motorized mixed use roads and motorized trails on the District.

The remaining alternatives respond to this issue to a lesser degree than Alternative A. In relative descending order of responsiveness, they are:

Alternative B Modified	(109 miles)
Alternative B	(79 miles)
No Action	(8 miles)
Alternative C	(0 miles)

### 3.2.1.4 Affected Environmental – Human Environment

#### *Overview of Changes from the Draft to the Final EIS*

- There was no change regarding the human environment from the DEIS to the FEIS.

#### *Introduction*

Social settings reflect the amount and frequency of contact between individuals and groups and how they use the environment. On the District, social settings vary from rural environments to open and unmodified primitive areas. Recreationists may find solitude in areas where there are few other people or may encounter large numbers of people in heavily used or concentrated use areas. Encounters with others vary depending on the season of use, the attractiveness of the area, the proximity to population centers, and the particular recreation activity.

Recreation activities include pursuits such as hunting, fishing, trapping, camping, picnicking, rock hounding and climbing, gathering products such as firewood and plants, viewing scenery and wildlife, hiking, nature study, and riding ATV's, motorcycles, and full size road vehicles for pleasure. Participation in recreation activities varies by season and location.

#### *Demographics and Social Trends*

Several Montana studies have been conducted that give indications of motorized recreation activity participation. In 1993 and 1994, the Institute for Tourism and Recreation Research conducted a study of Montana that examined the rates of participation in eleven recreation activities (McCool and Harris 1994). In the 6 months preceding their survey, the study estimated that adult Montanans in the study participated in the following off-highway motorized recreation activities at the following rates: 9.1% motorcycle, 11.8% ATV, and 19.6% 4X4 road vehicle. In 1997, Montana Fish, Wildlife and Parks produced a random telephone survey of Montanans that addressed participation in recreation activities (Montana Fish, Wildlife and Parks 1997). Within the past two years preceding the survey, respondents reported using trails for off-road recreation activities at the following rates: 2% motorcycle, 2% ATV, and 2% 4X4 road vehicle. While these studies do show different results, they are an indication that motorized recreation use by Montanans may be as low as 6% or as high as 20% of total recreation activity participation.

In 1998, the population of Montana was less than one million people, resulting in population densities of six people per square mile in Montana. Montana's population grew by 10% from 1990 to 1998. Rural areas tended to decline in population while larger urban areas tended to grow. Montana's population is expected to continue to grow primarily due to people moving into the state and is projected to exceed 980,000 by 2010.

A trend that is common to all states is the aging of the population. The percentage of persons under 20 years of age will decrease and the percentage of people over 65 will increase over the next 30 years. As an example, in Montana, the percentage of population under 20 years old is projected to decrease from 30.2% in 1995 to 24.3% in 2025. Conversely, the percentage of population 65 and over is expected to increase from 13.1% in 1995 to 24.5% in 2025. This would translate into a Montana population over 65 that more than doubles in size between 1995 and 2025. The percentage of people over 65 is actually increasing more rapidly in states like Montana, because young people are more likely to leave for advanced education, military service and employment opportunities not available locally.

### **Chapter 3: Affected Environment and Environmental Consequences**

Another important trend is the increasing popularity of Montana for recreation. The demand for the types of activities most available on federal lands is growing faster than for other activities (USDA 1989, Cordell 1999). The 1989 report states that some of the major issues facing recreation today include protecting resources and open space, acquiring more land to meet anticipated demand, resolving conflicts among different recreation users, and addressing the need for more access to outdoor recreation areas. Also, many communities are having problems maintaining access to federal lands if access through closed private lands is required to reach federal lands. In addition, loss of access to private lands is putting more pressure on federal lands.

The following concerns were identified by motorized users during the scoping period: loss of access areas traditionally used for these activities, damage being unfairly blamed on vehicle use, and planning focusing on a large area rather than on particular problem areas. Some of these recreationists indicated they are not concerned with this preliminary step, but feel it is only the beginning and that trail and road closures would follow during the next phase. Generally, OHV users indicated they did not experience conflicts with other users.

Based on comments received during scoping, motorized vehicle users participate in their activity on the District as a way for families and friends to enjoy the beautiful scenery together. Passing these activities on to future generations is important to them and has helped their children grow into responsible citizens. Some rely on motorized travel to retrieve game during hunting season. Many OHV users indicated they have a great respect for the land and try to be courteous when traveling. They feel the few people who do not follow the rules are giving all motorized travelers a bad name. Some even indicate a need for some restrictions on use and / or more law enforcement.

The prime motivation of non-motorized users appears to be a quiet, peaceful experience in beautiful surroundings away from the rushing and crowding of everyday life. From comments received during scoping, non-motorized user concerns revolve around conflicts with motorized users. These concerns included visuals, noise, wildlife displacement and harassment, and resource damage.

While some hunters feel that motorized use positively affects their hunting experience, some hunters also feel that motorized use negatively affects their hunting experience. The results of a survey published by Montana Fish, Wildlife and Parks (1998a) show improper vehicle use/road hunting is one of the top behavior problems witnessed by respondents in the 1997 hunting season. Nearly half of the respondents mentioned this problem. Respondents were also concerned about the widespread use of ATV's and their negative impact on the sport of hunting.

Many individuals and groups commented that the condition of resources on public lands is important because they value these resources for recreation, wildlife, scenic and spiritual qualities, and a variety of other reasons. Many appreciate just knowing that these areas exist and feel federal agencies have an obligation to manage these resources for future generations.

#### ***Conflict Among Uses of National Forest System Lands***

The 2005 Motorized Travel Rule requires the responsible official to consider "conflicts among uses of National Forest System lands" prior to designation of roads, trails, and areas.

Research (Williams 1993a) shows that the following factors influence the likelihood of conflict: activity style, resource specificity, mode of experience and tolerance for lifestyle diversity. Activity style refers to the significance the person attaches to the activity. Conflict is much more likely to

occur if the activity is an integral part of the person's lifestyle rather than an occasional activity. Resource specificity refers to the significance a person attaches to using a specific resource. Conflict is more likely to occur when the person has a special relationship with a place and perceives others are disrupting the traditional uses of the place or devaluing its meaning. Mode of experience refers to the way in which the environment is perceived. Conflict is more likely to occur when the person perceives the environment as part of the experience rather than as a backdrop for the experience. The last factor is tolerance for lifestyle. Conflict is more likely to occur when the user has a higher tendency to reject lifestyles that are different than one's own. Examples include a preference for mechanized versus non-mechanized or consumptive versus non-consumptive activities.

Conflicts over the use of National Forest System lands arise from differing opinions about appropriate uses on National Forest System lands. Participants at public meetings and scoping respondents questioned if the nature of conflicts represented confrontations between users in-the-field. This is generally *not* the nature of user conflict as it relates to this travel management planning effort. It is about forest users and their personal values, and the fact that personal values shape preferences for which activities are appropriate and desirable on public lands. Based on these preferences, some forest visitors may tend to feel that their experience is disrupted by activities that they don't feel are appropriate or desirable. Conversely, other forest visitors may feel offended or defensive when the activities they enjoy are identified as inappropriate or undesirable by others. The conflict related to travel management planning is most often characterized as motorized uses versus non-motorized uses.

Former Chief Dale Bosworth encouraged the use of collaboration to address travel management issues such as conflict between uses. In response, the District hosted a series of public collaborative meetings to work with the community to identify potential points of agreement on roads, trails and areas for designation on the District. The meetings generally revealed that where there was less personal identification with an area or personal values about how the area should be used, there was typically more potential for agreement. There was less potential for agreement when one or more viewpoints had strong personal identification with an area or a strong sense of how the area should be used. Reaching agreement in these later areas would most likely have meant committing to changes or compromising participant's personal values. Ultimately, the meetings were not effective in reaching substantive points of agreement between users with differing values.

### **3.2.1.5 Environmental Consequences – Human Environment**

#### ***Direct and Indirect Effects-Human Environment***

##### **Effects Common to All Alternatives**

The alternatives represent differing levels of motorized route designation, and are likely to represent varying degrees of satisfaction to forest users. Alternatives with more motorized opportunities will most likely be more favorable by forest users that find this type of use desirable and appropriate. Alternatives with relatively less motorized designation and more opportunity for non-motorized types of uses are more likely to be favored by forest users that find non-motorized types of use desirable and appropriate. It is difficult to say to what degree the conflict may be increased or decreased by alternative, because individuals will respond differently to each alternative. However, none of the alternatives wholly eliminate either motorized or non-motorized use, so the alternatives are not expected to increase the conflict to the degree that some users feel they have been entirely precluded from having opportunities compatible with their personal values. Conflicts between motorized and non-motorized users may increase as the number of recreationists on public lands increase.

### **Chapter 3: Affected Environment and Environmental Consequences**

Comments received after the DEIS pointed out that some conflict may be perceived conflict rather than actual conflict.

#### **Alternative A**

This alternative is most responsive to the desires of individuals and groups who feel public lands should remain open to motorized access. Conflict between non-motorized and motorized users may continue due to the greater number of designated roads as compared to no action. Conflicts between motorized users and other types of recreationists may increase as the number of recreationists' increases

Individuals supporting non-motorized recreational opportunities may believe this alternative does not sufficiently provide for non-motorized opportunities or protect the resources on public lands. The condition of the resources on public lands is important to these people because they value these resources for recreation, wildlife, scenic and spiritual qualities, and a variety of other reasons. Concerns for the aesthetic or visuals could be increased due to more use of roads and trails.

#### **Alternative B**

Motorized users are likely to feel some degree of loss of opportunities under this alternative, and may not support this alternative. This alternative has fewer routes available to motorized users than the existing condition, but has more than the no action alternative.

Individuals supporting non-motorized recreational opportunities may believe this alternative does not sufficiently provide for non-motorized opportunities or protect the resources on public lands. Concerns for the aesthetic or visuals could be increased due to roads, but could decrease due to restricting use in other areas.

#### **Alternative C**

This alternative is most responsive to the desires of individuals supporting non-motorized recreational opportunities, because it is most likely to be viewed as the alternative that provides the most opportunity for non-motorized experiences and provides the most protection for resources on public lands. Concerns for the aesthetic or visuals could decrease due to the fewer number of roads. This alternative is less responsive than other alternatives to the desires of individuals and groups who feel public lands should remain open to motorized access. Conflict between non-motorized and motorized users may continue due to the decreased number of designated roads as compared to existing condition and no action.

#### **No Action Alternative**

Conflicts between motorized users and other types of recreationists would continue and, perhaps, increase in the future as the number of recreationists on public lands increases. The quality of the hunt for some hunters would continue to be disturbed by motorized use. People engaged in hiking and other types of non-motorized recreation would also continue to be affected.

#### **Alternative B Modified**

This alternative responds to the concerns raised by the public but most likely will not completely satisfy any group. There are unresolved preference values that are looked at on a forest wide basis.

#### ***Cumulative Effects-Human Environment***

Past, present, and reasonably foreseeable activities generally include motorized travel and are

expected to create cumulative effects relative to recreationists who enjoy non-motorized activities. The expected increase in population and related increase in both motorized and non-motorized recreation activities, would, in general, lead to more conflict among recreationists. In general, as travel management decisions are made on public lands locally and within the region, conflict is not likely to be alleviated. Motorized recreationists may feel that public land managers are not listening and/or responding to their wishes to keep public lands open to motorized use. All alternatives except Alternative A are likely to add to these feelings. Non-motorized recreationists may feel that public land managers are not listening and/or responding to their wishes to reduce motorized use on public lands. All alternatives, except C, are likely to add to these feelings.

### **3.2.1.6 Conclusion - Human Environment**

Considerations of the human environment in each of the alternatives is consistent with the Custer Forest Plan, the Tri-State OHV EIS, travel planning direction and existing manual direction. Concerns raised by the non-motorized or motorized groups through the public comment process, including those received after the DEIS, were used to analyze the human environment aspect of each alternative. Comments received indicated a wide array of public needs and views, including a desire for more or no potential decrease in the number of routes by the motorized group or more quiet areas or less routes by the non-motorized group.

All alternatives address the needs of the recreation communities to differing degrees. None of the alternatives are anticipated to satisfy all publics. Alternative A is most responsive to the desires of individuals supporting motorized recreational opportunities and Alternative C is most responsive to the desires of individuals supporting non-motorized recreational opportunities. Alternatives B and B Modified both emphasize a compromise in addressing human environment concerns. Alternative B Modified responded to comments received from review of the Draft EIS which further emphasizes a compromise.

### **3.2.1.7 Affected Environment – Noise**

#### ***Overview of Changes from the Draft to the Final EIS***

- Literature review was updated.
- Analysis information is provided for the Pryor and Beartooth Units, and the District as a whole. Discussion of effects related to the season of use related to noise disturbance has been added in response to public comments.

#### ***Introduction***

An issue raised during scoping was the impact that noise from OHVs and other motorized vehicles has on the quality of recreationists' experience. Many people visit public lands to escape the noise of modern civilization. The natural soundscape and tranquility is a condition that they seek as part of their recreational experience. Non-motorized recreationists say that noise from motorcycles and ATVs, in particular, detracts from the natural setting they have come to the Forest to enjoy. Recent campaigns of organized OHV clubs focus on communicating to their membership that "noise annoys" and encourages them to voluntarily "quiet down" their vehicles, recognizing how important an issue this is to many public land recreationists. Noise can also affect traditional cultural practitioners as well as settings associated with these cultural sites. Noise can also affect wildlife. See the Cultural and Wildlife sections of this chapter for details of noise impacts to those resources.

**Chapter 3: Affected Environment and Environmental Consequences**

Noise levels are measured several ways, the most common measure being decibels A (dbA). Experts agree that continued exposure to noise louder than 85 dbA will cause hearing loss (League for the Hard of Hearing 2004). According to the National Institute for Occupational Safety and Health (1998), the maximum exposure time at 85 dbA in 8 hours may impair hearing. At 110 dbA, the maximum exposure time is one minute and 29 seconds.

The measure of decibels increases on an exponential scale. For example, a piece of machinery that emits noise of 102 dbA is roughly four times as loud as one that emits noise at 96 dbA (USFS, 2006). Normal conversation measures around 60 dbA, garbage disposals are around 80 dbA, most stock ATVs/motorcycles are in the low to mid 90s dbA, lawn mowers are around 100 dbA, some performance or after market motorcycles will test at over 100 dbA, discomfort level is 115 dbA, and pain threshold is at about 135dbA. The noise from a shotgun can exceed 170 dbA.

The entire Forest is affected by noise in some way, whether it is ambient noise from wind in the trees, water flowing over rocks, or human-created noise from airplane flights, motorized vehicles, or equipment, for example. Noise carries differently in the natural environment depending on topography, vegetative cover, ambient conditions and snow pack. Flat terrain with little vegetative cover and crusty snow pack creates conditions for sound to carry longer distances than does terrain with more relief, vegetative cover and either fresh snow or no snow cover (USDI, 2003).

The following table illustrates that emerging technology designed to muffle recreational vehicle noise has a significant effect on the distance that the noise from those vehicles will travel under different environmental conditions. It also illustrates how much of an effect forest cover has on the limits of audibility. A large percentage of the District is forested, which has the effect of muffling noise to a degree.

**Table 3-9. Distances to Limits of Audibility for Individual Vehicle Pass-bys in Open and Forested Terrain and in Average and Quiet Background Conditions.**

Vehicle Type	Maximum 50-foot Pass-by Level (dbA)	Distance (feet) to Limit of Audibility <sup>7</sup>			
		Open Terrain		Forested Terrain	
		Average Background <sup>8</sup>	Quiet Background	Average Background	Quiet Background
Automobile	68	2,180	2,330	1,130	1,200
Two-Stroke Snowmobile	74	3,860	4,120	1,990	2,230
Four-stroke Snowmobile	70	2,690	2,860	1,450	1,620

Montana’s sound law (MCA 61-9-418) requires a 96 decibel sound limit for motorcycles and ATVs operated off highway on public lands. Improvement of stock equipment has brought the sound level of most dirt bikes and ATVs down into the mid to low 90 decibel range.

Forest Service regulation 36 CFR 261.52 (j) requires spark arrester devices on all trail vehicles during

<sup>7</sup> Winter Use EIS for Yellowstone National Park (USDI 2000)

<sup>8</sup> Average background levels are 20 dBA and 22 dBA for the Open and Forested terrain, respectively; Quiet background levels are 15 dBA and 18 dBA for the Open and Forested terrain, respectively (USDI 2000).

the State declared fire season, typically May 1 to September 30. Many trail vehicles are now manufactured to meet this requirement, and typically when they meet the spark arrestor requirement they are also within the State mandated 96 decibel limitation. This method of enforcement obviously has its limitations including an officer's ability to recognize mufflers that have been modified from stock equipment, and it only applies during a short portion of the year.

Regardless of sound detectability by distances in a variety of settings, there are still those who are affected by noise-caused actions due to annoyance and resentment at the type of noise sources, or to the direct results of the noise itself.

### ***Analysis Methodology***

Recreation Opportunity Spectrum (ROS) settings are used in this analysis to address effects from noise by Alternative. See Recreation section of this chapter for definitions, protocols and further discussion. Noise or quiet aspects by ROS settings were used to assess the amount of the District where variation of noise or solitude might be found. The various ROS categories are compared to see the relative amount of recreational opportunity settings where noise ranges from only ambient noise (i.e., the AB Wilderness Area) to expected noise, especially in areas where quiet trails and opportunities for solitude may be hard to find during the summer and fall seasons. Varying levels of human-caused noise can be expected from settings with motorized uses such as those dominated by home and ranch development (Rural), areas dominated by roads (Roaded Natural) and Semi-primitive Motorized. Settings where human-caused noise is substantially reduced are those dominated by non-motorized areas found in the Primitive Non-motorized and Primitive ROS categories.

National Park Service modeling for "natural quiet" was not used since data needed for these models is not readily available. No matter how long and in what manner one collects soundscape data, there will always be a level of uncertainty because the soundscape is dynamic.

### **3.2.1.8 Environmental Consequences - Noise**

#### ***Direct and Indirect Effects-Noise***

##### **Effects of All Alternatives – District-wide**

All alternatives allow some motorized recreational vehicle travel that will contribute to noise on the District. Noise from recreational vehicles has the potential to impact people's recreation experience, wildlife (see Wildlife section), and traditional cultural practices (see Traditional Cultural Properties section). A large percentage of the District is forested, which has the effect of muffling noise to a degree. All alternatives would restrict motorized vehicles to designated routes only and dispersed vehicle camping along designated routes.

The following table displaying summer ROS classes by Alternative, shows that between 79% and 82% of the District provides non-motorized settings, while between 18% and 21% provides motorized settings under all alternatives. The Semi-Primitive Non Motorized and Primitive category predominates because of the Wilderness, Inventoried Roadless Areas, and the topographic constraints inherent to the landscape of the analysis area.

**Table 3-10. Recreation Opportunity Spectrum Acres<sup>9</sup> and Percentages by Alternative<sup>10</sup>**

ROS Setting	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
<b>Pryors Unit (77,969)</b>					
<b>Motorized Opportunities</b>					
Rural	0%	0%	0%	0%	0%
Roaded Natural	25% (19,399)	33% (25,739)	53% (41,621)	56% (44,055)	33% (25,875)
Semi-Primitive Motorized	46% (35,985)	30%(23,380)	0%	0%	29%(22,439)
Subtotal	55,384 (71%)	49,119 (63%)	41,421 (53%)	44,055 (56%)	48,314 (62%)
<b>Non-Motorized Opportunities</b>					
Semi-Primitive Non-Motorized	29% (22,584)	37% (28,849)	47% (36,347)	43% (33,913)	38% (29,654)
Primitive	0%	0%	0%	0%	0%
Subtotal	22,584 (29%)	28,849 (37%)	36,347 (47%)	33,913 (43%)	29,654 (38%)
<b>Beartooth Unit (525,625 acres)</b>					
<b>Motorized Opportunities</b>					
Rural	2% (12,676)	2% (12,676)	2% (12,676)	2% (12,676)	2% (12,205)
Roaded Natural	10% (51,832)	10% (51,830)	10% (51,314)	10% (51,830)	10% (52,307)
Semi-Primitive Motorized	1% (6,715)	<1% (1,848)	<1% (1,848)	1% (6,715)	1% (6,072)
Subtotal	71,233 (14%)	66,354 (13%)	66,038 (13%)	71,222 (14%)	70,584 (13%)
<b>Non-Motorized Opportunities</b>					
Semi-Primitive Non-Motorized	25% (127,281)	25% (132,150)	25% (132,666)	25% (127,283)	24% (127,920)
Primitive	62% (327,121)	62% (327,121)	62% (327,121)	62% (327,121)	62% (327,121)
Subtotal	458,416 (87%)	459,272 (87%)	495,515 (87%)	454,404 (87%)	455,041 (94%)
<b>District-Wide (603,593 acres)</b>					
<b>Motorized Opportunities</b>					
Rural	2% (12,676)	2% (12,676)	2% (12,676)	2% (12,676)	2% (12,205)
Roaded Natural	12% (71,231)	13% (77,569)	15% (92,935)	16% (95,885)	13% (78,182)
Semi-Primitive Motorized	7% (42,700)	4% (25,228)	<1% (1,848)	1% (6,715)	5% (28,511)
Subtotal	126,607 (21%)	115,473 (19%)	107,459 (18%)	115,277 (19%)	118,898 (20%)
<b>Non-Motorized Opportunities</b>					
Semi-Primitive Non-Motorized	25% (149,865)	27% (160,999)	28% (169,013)	27% (161,196)	26% (157,574)
Primitive	54% (327,121)	54% (327,121)	54% (327,121)	54% (327,121)	54% (327,121)
Subtotal	481,000 (79%)	488,121 (81%)	495,862 (82%)	488,317 (81%)	484,695 (80%)

Alternative A has 2% more acreage (11,330 acres) in a motorized setting compared to No Action, and is the least restrictive alternative for motorized recreation with most opportunity for temporary solitude interruption by noise. Alternative C has one percent less acreage (7,818 acres) in a motorized

<sup>9</sup> One half mile buffer from motorized routes are used per ROS definition and protocol.

<sup>10</sup> Calculations were based on all ownerships within the District boundary.

setting compared to No Action and is the most restrictive alternative for motorized recreation and allows for most solitude without interruption by noise. Alternative B and B Modified is less restrictive than Alternative C and more restrictive than Alternative A and No Action and has less than one percent increase in acreage (196 acres) for motorized settings when compared to No Action. Opportunity for temporary solitude interruption by noise will vary.

#### **Effects of the Alternatives – Pryor Unit**

Within the Pryor Unit, between 29% and 47% of the unit are in a non-motorized setting and between 53% and 71% would be in motorized settings based on the alternative.

ROS information indicates that in the Pryor Unit Alternative A would increase areas with the potential for motorized noise disturbance by approximately 15% over No Action. Alternative B and B Modified would increase the area with this potential by 7% and 6%, respectively. Alternative C would reduce the area with potential for motorized noise disturbance in the Pryor Unit by 3%.

Frequency of use is highly variable. Under Alternative C, frequency of use might increase as a result of potentially concentrating motorized uses to fewer routes in the Pryors. This may have potential to increase noise impacts along popular loop areas such as Stockman Trail and Red Pryor Divide.

Implementing a season of use for vehicles at higher elevations in the Pryor Unit to reduce vehicle impacts during spring thaw, as proposed in Alternatives B, C, and B Modified, could also limit time that noise, associated with motorized vehicles on designated roads and trails, is a disturbance. In other words, noise disturbance associated with motorized vehicles would be reduced during the period when motor vehicles are prohibited from using routes due to season of use restrictions. In the Pryor Unit, this period varies between alternatives, but generally occurs during spring to early summer. The effects would include the following:

- Under Alternative B, a gross estimate of the acres that would temporarily change from motorized to non-motorized settings for the period from April 16 to June 14 is 38,400 acres, or 49% of the land unit. This is a straight calculation of 60 miles of routes under the season of use restriction multiplied by the one mile associated with the motorized ROS setting. This does not account for overlap of the one mile corridor among some of the routes, which would reduce the overall acreage. Even considering this overlap, there would be substantial shift in the ROS setting during this period under this alternative.
- Under Alternative C, using the same straight calculation method as above, 20 miles of routes or roughly 12,800 acres (16%) would shift from motorized to non-motorized settings from April 16 to June 14. There would be very little ROS corridor overlap of the affected routes.
- Under Alternative B Modified, using the same calculation method, 43 miles of routes or 27,520 acres (35%) would shift from motorized to non-motorized settings from April 16 to May 21. In addition, 15 miles of routes or 9,600 acres (12%) would shift from April 16 to June 14. Similar to Alternative B, there are several routes where the ROS corridors would overlap, which would reduce the overall acreage. Again, even considering this overlap, there would be a substantial shift in the ROS setting during these periods under this alternative. However, the benefit would be less than Alternative B given the shortened period of time (roughly five weeks rather than eight weeks) for a majority of the routes.

#### **Effects of the Alternatives – Beartooth Unit**

Within the Beartooth Unit, between 87% and 94% of the unit would be in a non-motorized setting, and between 13% and 14% would be in motorized settings based on the alternative. Motorized

### **Chapter 3: Affected Environment and Environmental Consequences**

settings in the Beartooth Unit vary only by about 1% between any alternative.

Frequency of use is highly variable. Under Alternative C, frequency of use might increase as a result of potentially concentrating motorized uses to fewer routes in the District. This may have potential to increase noise impacts along popular areas such as Benbow.

Implementing a season of use for motorized use on Lodgepole and Meyers Creek trails in the Beartooth Unit, as proposed in Alternative B Modified, could also limit time that noise, associated with motorized vehicles on designated routes. This period generally occurs during winter and spring.

#### ***Cumulative Effects-Noise***

Background noise on the Forest (other than naturally occurring sounds from running water, wind in the trees, etc.) has been a function of short term temporal activities like timber harvest, fire suppression activities, and other permitted uses, etc. Short term impacts to recreationists have occurred for many years, especially since the advent of heavy machinery, motor vehicles, aircraft and power equipment. There are no significant stationary noise sources from industrial activities which have effected recreationists on the District in recent history (like sawmills or ore crushing facilities) other than noise associated with several active mines (Stillwater Mine, Limestone Quarry). Noise from these facilities is confined to the immediate vicinity of the project.

Noise associated with projects on the District will continue into the future. Timber harvest, operations of mines or mineral development, permittees, wildlife management activities, etc. typically are site specific, and do not tend to all occur in the same general location at the same times. Because of the dispersed and temporal nature of these projects, combined effects are not very likely. In some cases, road reconstruction work could be occurring concurrently with timber harvest or mining activities, and special use projects which would have an additive effect to the intensity of noise associated with a specific project. All of these projects tend to be temporal with their effect to recreationists typically lasting from several hours to several weeks or months. All reasonably foreseeable effects are short term (less than several months in duration), except Stillwater Mine Company operations where limited recreation occurs.

Numerous District activities other than the recreational use of motorized vehicles contribute to background noise and the loss of natural quiet. Permitted activities such as timber harvesting and mining often involve heavy equipment that is noisy. Fire fighting efforts frequently involve aircraft (helicopters, patrol planes, retardant bombers), as well as pumps, chainsaws, generators, etc. All of this equipment adds to human-caused noise. Commercial and private aircraft over-flights are a daily occurrence on the District, adding a short-term noise impact.

Frequency of use is highly variable. As an example, under Alternative C, frequency of use might increase as a result of potentially concentrating motorized uses to fewer routes. This may have potential to impact residences near popular loop areas such as Benbow, for example.

Alternative A would provide the most dispersed motorized recreation activities across the largest area of the District, which could potentially exacerbate the effects of noise from other activities across a broader portion of the District. In some cases, recreationists may not be as affected by noise from recreational vehicles in areas where other human caused noise may dominate the soundscape.

**3.2.1.9 Conclusion - Noise**

Recreationists seeking natural quiet near activities producing noise are likely to be annoyed by human-caused noise and may find noise from motorized recreational vehicles to be additive to ambient noise or they may likely recreate elsewhere. These effects are all short term but tend to impact the quality of some users' experience.

Under all alternatives, between 79% and 82% of the District provides non-motorized settings where human caused noise is less likely and between 18% and 21% provides motorized settings where noise impacts are more likely.

There is more difference between alternatives when the Pryor Unit is considered individually. The season of use restrictions in Alternatives B, C and B Modified have the potential to shift (16% or more) the ROS settings from motorized to non-motorized during the spring to early-summer periods affected.

The following table summarizes areas potentially impacted by noise from motorized activities (motorized ROS) and areas not expected to be impacted (non-motorized ROS).

**Table 3.11. Summary of Noise Settings**

Noise Setting	Unit	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
Acres in motorized ROS settings (Percent of land unit in motorized ROS settings)	Pryor	55,384 (71%)	49,119 (63%)	41,421 (53%)	44,055 (56%)	48,314 (62%)
	Beartooth	71,233 (14%)	66,354 (13%)	66,038 (13%)	71,222 (14%)	70,584 (13%)
	District	126,607 (21%)	115,473 (19%)	107,459 (18%)	115,277 (19%)	118,898 (20%)
Acres in non-motorized ROS settings (Percent of land unit in non-motorized ROS settings)	Pryor	22,584 (29%)	28,849 (37%)	36,347 (47%)	33,913 (43%)	29,654 (38%)
	Beartooth	458,416 (87%)	459,272 (87%)	495,515 (87%)	454,404 (87%)	455,041 (94%)
	District	481,000 (79%)	488,121 (81%)	495,862 (82%)	488,317 (81%)	484,695 (80%)

Regardless of sound detectability by distances in a variety of settings, there are still those who are affected by noise-caused actions due to annoyance and resentment at the type of noise sources, or to the direct results of the noise itself.

**3.2.2 CULTURAL RESOURCES**

**Regulatory Framework**

This section contains information on the Archaeological Resources and Traditional Cultural Properties and is organized in two respective sections. Cultural resource is a broad term that refers to cultural properties and traditional life way values. A cultural property may be the physical remains of archeological, historical and architectural sites and/or a place of traditional cultural use. Traditional life way values refer to the connection between the landscape and a groups' traditional beliefs, religion or cultural practice.

### **Chapter 3: Affected Environment and Environmental Consequences**

Since these resources are nonrenewable and easily damaged, laws and regulations exist to help protect them. These include the National Historic Preservation Act (NHPA), the Archeological Resources Protection Act (ARPA), the American Indian Religious Freedom Act (AIRFA) and the Native American Graves Protection and Repatriation Act (NAGPRA). Sacred and culturally important places fall under this purview of the NHPA, AIRFA and the Sacred Lands Executive Order (Executive Order 13007). Native American graves are protected under NAGPRA.

The NHPA and its implementing regulations require that federal agencies take into account the effects of their undertakings on historic properties and provide the Advisory Council on Historic Preservation with an opportunity to comment on those undertakings. The term “historic property” refers to any prehistoric or historic district, site, building, structure or object included in, or eligible for inclusion on, the National Register of Historic Places (NRHP).

The Custer National Forest (CNF) is a participant in the Montana Programmatic Agreement (MTPA) between the Montana State Historic Preservation Office (MTSHPO), the Advisory Council for Historic Preservation and the Northern Region of the Forest Service regarding the management of cultural resources on National Forest lands in Montana. A new site identification strategy (SIS) under the MTPA is designed to identify potential effects to cultural resources from this undertaking and is under review by the MTSHPO. In compliance with the SIS the CNF will continue to survey, identify sites, monitor sites and develop avoidance or mitigation measures in consultation with the MTSHPO. All reporting on these activities will be included in the MTPA annual report for travel planning.

Under the guidance provided in the *USDA Forest Service Policy for NHPA Compliance in Travel Management: Designated Routes for Motor Vehicle Use* prepared by the Forest Service in consultation with the Advisory Council on Historic Preservation (USDA Forest Service 2005), certain travel management proposals are considered an undertaking. The “undertaking” focuses on three specific categories: 1) the construction of a new road or trail; 2) the authorization of motor vehicle use on a route currently closed to vehicles; and 3) the formal recognition of a user-developed (unauthorized) route as a designated route open to motor vehicles. Existing or formally established system (classified) roads and trails already open to motor vehicle will not be evaluated since their current designation is not considered an undertaking under the policy. Category three applies to the Beartooth Travel Management undertaking. The terms of the MTPA will be followed when authorizing motor vehicle use on new or unclassified roads and trails.

#### **3.2.2.1 Affected Environment– Archeological Resources**

##### ***Overview of Changes from the Draft to the Final EIS***

- Inventory conducted on non-system roads proposed for designation as system roads. This new information was included and analyzed for all alternatives.
- Addition of a Site Identification and Monitoring Strategy (SIS) for travel management to the MTPA. The SIS will be followed in compliance with the NHPA and ARPA.

##### ***Introduction***

The District, situated in south-central Montana, is composed of two separate and unique geographic units. The Beartooth Unit consists of approximately 512,943 federally administered acres. Approximately thirty miles to the east is the Pryor Unit which consists of approximately 74,932 federally administered acres.

At present, there are 399 recorded sites on the District; 233 on the Beartooth Unit and 166 on the Pryor Unit. With approximately 17,282 archeological inventory acres on the Beartooth Unit and approximately 4,578 archeological inventory acres on the Pryor Unit, a site density of one site for every 74 acres on the Beartooth Unit and one site for every 28 acres on the Pryor Unit is estimated.

In 1999, the Custer National Forest identified sites that met the national criteria for “priority heritage assets. Priority asset sites are those sites that have had a significant value investment; and/or are eligible for nomination to the National Register of Historic Places (NRHP); and/or are considered “at risk” due to substantial effects to site integrity. A National Forest Service heritage infrastructure database (INFRA) is used to track priority asset sites and associated prescribed maintenance or management activities. Presently on the District, there are 62 sites on this list that are monitored on a five-year cycle for condition assessment. Only one site, Camp Senia (24CB1134) has been formally nominated, and is listed on, the NRHP. At least 15 sites on the District have been evaluated and formally determined Not Eligible for nomination to the NRHP.

### ***Previous Investigations***

Archaeological and ethnographic investigations within, and adjacent to, the District have been ongoing since the late 1930s and have revealed a long and diverse series of human occupation in the area (Beckes and Keyser, 1983; Deaver and Kooistra-Manning 1995; Nabokov and Loendorf 1994).

### **Pryor Unit**

During the 1960s the Billings Archaeological Society, often with assistance from Crow Tribal members, conducted inventory investigations in the Pryor Mountains and recorded numerous prehistoric and historic sites. (Conner 1967a and 1967b; Loendorf and Brownell 1980: 5).

Through a jointly funded project between the Bureau of Land Management, the National Park Service and the Forest Service various portions in and around the Pryor Mountains were investigated under the direction of Lawrence L. Loendorf during the 1968-1970 field seasons (Loendorf 1969, 1971, 1974a). Over three hundred new or previously recorded sites were located during these investigations (Beckes and Keyser 1983: 314). Projectile points collected during these three field seasons represent PaloeIndian Period (Angostura) through the Late Prehistoric Period (arrow points). Loendorf later conducted excavation investigations at six of these sites in the Pryor Mountains in order to determine the nature or the type of activity, and the length of occupation, which occurred during the periods of summer occupation at sites situated near the upper elevations in the Pryor Mountains (Loendorf 1974b).

In 1978 the University of Maine-Alberta Pryor Mountains research project began under the direction of Robson Bonnicksen. This multi-year project recorded over twenty-five cave, rockshelter/overhang and natural trap locations in the Pryor Mountains and investigated the presence of Late Pleistocene and Holocene cultural deposits (Bonnicksen and Young 1978). Radiocarbon samples from several of these caves have yielded dates ranging from approximately B. P. 10,530 to 620 years. Paleoclimatic sequences were constructed based upon analyses of floral, faunal and geomorphological samples collected from many of these locations (Beckes and Keyser 1983: 315). A complete Clovis projectile point was found on the surface near a spring in the Pryor Mountains during Bonnicksen’s investigations (Scott 2005).

Three overviews have focused on the Pryor Mountains and surrounding areas in Carbon and Yellowstone counties (Harvey 1974, Konrad 1984, Trails and Tales Historical Committee 1983).

### **Chapter 3: Affected Environment and Environmental Consequences**

In 1989 Historical Research Associates (HRA) conducted cultural resource inventory on two-hundred sixty-seven properties (Forest Service owned buildings) located on thirteen National Forests within Region 1 of the United States Department of Agriculture (Caywood et al. 1990: 1-3). Five properties were recommended eligible for nomination to the National Register of Historic Places (Sage Creek, Rock Creek, Line Creek, Green Shack, and Meyers Creek). Included in this study was Bainbridge Cabin. This site was one of the first Homestead Entry Surveys in the Pryor Mountains and, at over 7800 feet in elevation, is the highest cabin site in the Pryor Unit. Today the Bainbridge Cabin is a popular destination for recreationists.

#### **Beartooth Unit**

One of the earliest formal archaeological research projects on the District began in 1972 by the Museum of the Rockies under the direction of Dr. Les Davis (Davis 1972). Six lithic artifact scatter sites (24CB36, 37 and 24ST36, 651, 652, 652) were recorded during a three year period in the Line Creek area and along the West Rosebud Creek drainage (Davis 1975). Following this sample inventory, testing and intensive data recovery projects were conducted at the West Rosebud Lake Archaeological Site (24ST651) during 1977-78. Artifacts recovered during these projects revealed sporadic prehistoric use of this site for the past 6000 years (Gregg 1977, Greiser and Plochman 1981).

Of special interest concerning the prehistory of the Beartooth Unit is a multi-year random sample inventory that was conducted under permit by retired National Park Service archaeologist Wilfred M. Husted and Forest Archaeologist Halcyon La Point during the late 1980s and early 1990s. Husted continued a long-standing interest in the alpine archaeology of the Beartooth Mountains by conducting several excursions into the backcountry to locate and record previously documented and new sites. With access to the Waples' collection, artifacts gathered by former game warden Vern Waples during a career of over thirty years on and near the Beartooth District, Husted was able to conduct an intensive analysis on the diagnostic projectile points, as well as, a detailed obsidian source study on over one hundred artifacts. The Waples' collection represents a time range of approximately 12,000 years of human occupation in the Beartooth Mountains and adjacent lowlands.

An early research project to document the historic era of the Beartooth Mountains and surrounding Stillwater County was conducted in the 1960s (Anin 1964). This three-volume compilation of photographs, recollections and stories provides personal insight to the early-day character and development of the landscape within, and adjacent to, the District. Later, a second collection of photographs and stories was published, focusing on the town of Red Lodge and the immediate surrounding area (Zupan and Owens 1979).

#### ***General Prehistoric and Historic Occupation***

Evidence of prehistoric human occupation on the District, both in the Beartooth Unit and in the Pryor Unit, spans nearly 12,000 years. All periods of Northwestern Plains chronology, from Paleoindian to Late Prehistoric, have been documented in the area primarily in the form of diagnostic stone artifacts.

Prehistoric site types include alignments/drivelines, bison kill areas, cairns (possible burial features), caves/overhangs/rock shelters/sink holes, depressions, fasting beds/vision quest structures, lithic artifact scatters (with bone, ceramics, fire-cracked rock, etc.), quarries, rock blinds and stone circles. Both the Beartooth and Pryor Units offered all the necessities for prehistoric and historic peoples to survive including clothing, food, protection, raw materials and shelter.

While the prehistory of the District area is complex and varied, so too is the protohistoric and historic era. Protohistoric and historic cultural resource sites may include some of the feature types listed above along with: buildings (Forest Service administrative sites, mining operations, logging/sawmill operations, ski areas, homesteads, squatter cabins), cribbed-log and conical timbered lodge structures, cairns (cadastral survey or trail markers), camps (recreational campgrounds, Civilian Conservation Corps, highway construction, youth organization), concrete or stone dams, special use authorizations (irrigation ditches, hydroelectric facilities, recreation cabins, sheep corrals/water troughs), travel features (bridges/roads, hiking trails), lime kilns, mining or prospect pits, a roadside vista and wood piles that may have served as signal fires.

The Verendyre brothers may have been the first white explorers to travel through the Beartooth Mountains during the 1740s. William Clark, along with several members of the Lewis and Clark expedition, viewed the area from a distance on their return trip down the Yellowstone River in 1806, but did not conduct any detailed investigations of the area. Francois Antoine Laroque had an agreement with the Crow to trade for their beaver and bear skins during the early 1800s. In order to contact them in the fall, Laroque told them he would light fires on the mountain called Amanchable Chije—the Pryor Mountains (Hazlitt 1934: 22). Signal Fire Site may be the location of these Pryor Mountain signal fires.

Lieutenant Gustavus Cheyney Doane traveled through a portion of the District in 1876 and provided descriptions of areas near the Stillwater River. In particular, the Koegh Buffalo Jump—located just off Forest Service administered land along the Stillwater River—received brief but special mention by Doane:

*“the beautiful Stillwater issuing from a mighty and closed cañon and bordered by a basaltic terrace terminating in sheer walls above the stream. Here was once a buffalo trap. The Indians drove the great herds slowly to the table land in rear and having closed in on the side toward the valley, stampeded and rushed them over the precipice. Their bones lie at the foot of the rock cliffs in a long windrow of bleaching thousands.”* (Bonney and Bonney 1970: 461).

The District lies within the former boundary of the Crow Reservation as defined by the 1851 and 1868 Fort Laramie Treaties. While other tribes, such as the Arapaho, Bannock, Blackfoot, Nez Perce, Shoshone and Sioux, are known to have visited and spent time here, no doubt much of the area became well known, especially to the Crow Indians, during the latter half of the 1800s. During the next forty years following the signing of the 1851 Fort Laramie Treaty the Crow people saw their reservation reduced from over 38 million acres to just over 2 million acres through a series of treaty re-negotiations.

Historically, the District and surrounding area saw early development in homesteading, logging, and mining ventures, ranching and trapping. Hundreds of horses and cattle, along with thousands of sheep, were run in the Beartooth Mountain and Pryor Mountain areas (USDA Forest Service 1911-12: 7-10). Although these varied livestock interests were not always compatible, competing individuals usually settled their differences and figured out ways to tolerate each other.

Directly related to these early-day development activities are the numerous roads and trails that were created or constructed to provide access for homesteaders, loggers, miners, ranchers and recreationists. Crooked Creek Road (#2085), Hellroaring Creek Road (#2004), Rock Creek Road

### Chapter 3: Affected Environment and Environmental Consequences

(#2421) and West Fork Rock Creek Road (#2071) are just a few of the historic roads that have recently been recorded as sites. Graham Trail (#2013), Miller Trail (#2496), Red Pryor Divide Road (#2091) and Stockman Trail (#2850) are examples of roads that became travel corridors on the landscape not by formal construction but through frequent use by homesteaders (such as Bainbridge and Greathouse), loggers, cattlemen and sheepmen. Later mining activity—especially in the Pryor Mountains—that brought heavy earth-moving equipment to the area, often saw the improvement of these user-created roads. Many of these roads are scheduled for cultural resource investigation, site recording and evaluation.

An interesting water war evolved along the Sage Creek drainage in and around the Pryor Mountains during the late 1800s and early 1900s. Differing interpretations of water rights and water claims fueled a multi-year conflict between several homesteaders in this area and eventually led to a dynamite blasting event. The remains of a cribbed-log and stone dam on Sage Creek are a reminder today of this early-day water conflict (White 1990).

The mining industry of the 1880s and 1890s focused on coal and hard rock (asbestos, chromite, copper, gold, limestone, platinum/palladium, uranium) development. Along with this mining activity came the need for a work force that consisted of a variety of ethnic groups, the need for a railroad (Zupan and Owens 1979) and the need of mine/railroad timbers (USDA Forest Service 1911-12: 5). Abandoned remains of these mining ventures can be seen today at the New World Mine near Cooke City, the coal mines of Bear Creek/Red Lodge/Washoe, the Benbow and Mouat Mines near the Stillwater River drainage and hundreds of adits, tunnels and prospect pits scattered across the Beartooth and Pryor Mountains. A few lime kilns—reminiscent of small-scale operations dating to the late 1890s—are still present today on the District near Red Lodge and along the base of the Pryor Mountains. More recent mining ventures—specifically those associated with the 1950s-era uranium mining operations in the Pryor Mountains—have just become eligible for consideration as heritage resources. The Old Glory Mine and the Sandra Mine are two abandoned mines that are scheduled for cultural resource investigation, site recording and evaluation.

Not all mining operations in the area have faded to the realm of memories. Today, the Stillwater Mining Company located along the Stillwater River extracts platinum group metals while the Montana Limestone Company operates a commercial limestone quarry along the southwest corner of the Pryor Mountains.

With the establishment of the Pryor Mountain Forest Reserve in 1906 and the Beartooth National Forest in 1908, a variety of resources, besides grazing, mining and timber, were recognized including recreation and water power. Camping, hiking, hunting, fishing and skiing were only a few of the recreational opportunities that lured people away from the cities and towns. Camp Senia, one of the first dude ranch operations in Montana, was started by Alfred Croonquist in 1917 along the banks of the West Fork Rock Creek. Granite Peak—the highest mountain in Montana at 12,799 feet was successfully climbed in 1923 following numerous attempts dating back to the mid-to-late 1880s (Smith 1923, USDA Forest Service 1962).

Along with the creation of the Pryor Mountain Forest Reserve in 1906 several ranger stations—including Crooked Creek RS, Dry Head RS, Piney RS and Sage Creek RS—were soon established in the Pryor Mountains primarily in order to administer grazing and timber permits. Although the rangers at these administrative sites usually conducted their work on horseback, primitive roads/trails had already begun to appear in the area. These travelways provided access to several Homestead

Entry Surveys (HES) along Sage Creek, to two HES located on Big Pryor Mountain, and to mountain grazing pastures and timber operations. Through the years, as mode of travel switched from animals and wagons to motor vehicles, some of these roads/trails (i.e. Sage Creek Road and Crooked Creek Road) saw improvement such that today they may be accessed by highway vehicles. Other roads/trails (i.e. the majority on Big Pryor Mountain) have retained their primitive character. A brief period of road/trail construction or improvement likely occurred in the Pryor Mountains during the 1950s-era uranium prospecting and mining activity.

These early-day road/trail systems on the Pryor Unit were limited in extent and remained so well into the 1960s. Map comparisons dating from 1918 (USDA Forest Service 1918) and 1965 (USDA Forest Service 1965) show very few additional trails between this nearly fifty-year span. Only one road, Crooked Creek Road #2085, in the Pryors Unit has been formally recorded as a historic site. There may be other historic roads in the Pryor Unit that require site recording.

Two colorful characters that adopted the District as their home were William “Wild Bill” Kurtzer and James “Jimmy Joe” Ayling. Although their solitary lives on the District barely overlapped they both held a kinship in their hermit lifestyle. Wild Bill constructed a small fishing pond in the West Fork Rock Creek drainage and operated a small-scale recreation facility for the Red Lodge locals and the surrounding communities. He was a frequent story-teller at a nearby children’s youth camp. Jimmy Joe, who was always in company with his Samoyed dogs, lived along the Main Fork Rock Creek and was a winter caretaker for the recreation cabins along East Rosebud Lake. He was a wood carver of ocean-sailing ships, one of which is on display at the East Rosebud Lake Association Lodge. Although both of these individuals were squatters on National Forest Service land and have long since passed on, Wild Bill in 1934 and Jimmy Joe in 1971, they left their unique mark on the District.

Mystic Lake, located high in the mountains near the headwaters of the West Rosebud drainage, was dammed and became an operating hydroelectric facility in 1925 (Kirk nd: Chapter 5, page 26). In 1925 the first survey for a vehicle route from Red Lodge to Cooke City was conducted and in 1936 the Beartooth Highway was officially opened to the public (Zupan and Owens 1979: 276). Glacier Lake, located at the headwaters of the Main Fork Rock Creek, was dammed in 1937 to provide control facility for irrigation activity (Department of Natural Resources and Conservation 2001).

The Civilian Conservation Corps (CCC), a 1930s-era work relief plan promoted by President Franklin D. Roosevelt to address high unemployment among young men across the nation, played an important role in numerous construction projects on the District. In addition to building miles of fencelines, roads and trails the CCC constructed or improved several recreation campgrounds. Buildings and ski runs, located on the outskirts of Red Lodge at the Willow Creek Ski Area, were constructed by the CCC. The youth-oriented Lion’s Camp and the St. Vincent’s Orthopedic Camp for crippled/handicapped children benefited from the able work force of the CCC. These two camps are still operating today as youth camps. Impressive rockwork at Vista Point near the top of the Beartooth Highway and along a hiking trail in the Pryor Mountains are lasting examples of CCC craftsmanship. Other projects that the CCC were involved with on the District included fence building, fish planting and stream improvement (Brownell 2002).

One other ski development, known as Shangri-La, was operating up the Main Fork Rock Creek during the 1940s. With a log warming lodge and two thousand feet of ski tow, this development was recognized nationally and was chosen for the 1948 State Meet. A forest fire this same year destroyed the entire development and only remnants of a fireplace are visible today (Zupan and Owens 1979: 226-227).

### Chapter 3: Affected Environment and Environmental Consequences

In 1978 the 945,000 acre Absaroka-Beartooth (A-B) Wilderness was created with approximately 345,000 acres lying within the District.

#### **Methodology**

In order to determine the potential effects on cultural resources existing system and non system roads and trails were intersected with known archeological sites lying within a 600 foot wide corridor centered on the road or trail, utilizing GIS layering. This 600 foot wide analysis corridor is in accordance with the 2001 OHV decision to allow motorized wheeled cross-country travel to access dispersed camping sites (USDA Forest Service 2001) and it defines the area of potential effect (APE) when analyzing both direct and indirect effects under Alternatives A, B, B Modified and No Action. Two key stipulations in this 2001 OHV decision are that the selection of dispersed campsites is to be conducted by non-motorized means and once a dispersed camp site is selected it must be accessed by the most direct route (USDA Forest Service 2001: 7).

Two hundred thirty-four sites are identified within the 600 foot wide road and trail corridor on the District. This represents over half of the recorded sites on the District. Fifteen sites within the 600 foot wide corridor have been formally determined Not Eligible (NE) for nomination to the NRHP. These sites are removed from the analysis and will not be further considered. Of the 219 remaining sites, those that are currently defined as “undetermined” (N = 166) with respect to NRHP eligibility status will be considered potentially eligible under the MTPA protocol. The following table presents a NRHP status summary of these 219 sites by geographic unit and also identifies the number of priority asset sites present (priority asset sites are discussed below in Effects Common to All Alternatives).

**Table 3-12. NRHP Status of Sites by Geographic Unit**

NRHP Status	Pryor Unit	Beartooth Unit	Total
Listed	0	1 (1*)	1 (1*)
Eligible	20 (20*)	32 (22*)	52 (42*)
Undetermined/Potentially Eligible	66 (3*)	100 (5*)	166 (8*)
<b>Totals</b>	<b>86 (23*)</b>	<b>133 (28*)</b>	<b>219 (51*)</b>

(N\*) = number of Priority Sites

On the Pryor Unit, twenty sites are recommended eligible for nomination to the NRHP while sixty-six have not been evaluated. Twenty-three of these sites are considered priority assets. On the Beartooth Unit, thirty-two sites are recommended eligible for nomination to the NRHP while one hundred have not been evaluated. Twenty-eight of these sites are considered priority assets. The Camp Senia Historic District is the only site formally listed on the NRHP and is also a priority asset.

Effects to sites are based upon the results of monitoring conducted during the past several years by Forest Archaeologists. These site monitors document natural versus human-caused disturbances and note any changes, either positive or negative, through time. Site by site review of properties that may have adverse effects resulting from the travel management decision will be conducted as part of the travel management SIS and consultation with the MTSHPO will continue until all sites are addressed and issues resolved. Site-specific forms of mitigation may include incorporating avoidance measures such as road realignment or closure, site-armoring techniques, increased enforcement, barriers, stewardship programs and detailed resource documentation and/or data recovery.

Of the 219 sites identified within the 600 foot wide road and trail corridor on the District, 130 involve system roads that are not proposed for any change in designation. Thirty-eight of these sites are located on the Pryor Unit and 82 are located on the Beartooth Unit. Proposed changes from non system road to designated road will result in no effect to twenty-nine sites, of which nine sites are located on the Pryor Unit and seventeen sites are located on the Beartooth Unit. This leaves 60 recorded sites that could potentially be affected by one or more alternative. Thirty-eight sites, all located on the Pryor Unit, will benefit from proposed changes. Up to twenty-two sites (Alternative A) could be adversely affected by proposed designation changes to system roads under the alternatives.

The proposed designation of non system roads to system roads could directly or indirectly affect twenty-two sites under Alternative A, nine sites under Alternative B, ten sites under Alternative B Modified and one site under Alternative C. Affects to these sites are discussed below under the respective alternatives.

The nature of terrain and landscape crossed by motorized vehicles is relative to both the type and number of sites impacted by this activity, and the types of effects to archaeological and TCPs. For the Beartooths, the rugged mountainous terrain was as difficult to traverse for prehistoric and historic groups as it is for recreational users today, and access is concentrated along trail and road corridors that follow streams and rivers. These same areas represent high probability for the presence of archaeological and traditional cultural property site locations. Many of the same dispersed campsites that were favorable in the past are the same ones used today. Along three creeks, West Fork Rock Creek, Main Fork Rock Creek and West Fork of the Stillwater, evidence of past traditional use is found as cairns and trail markers. At least one of these significant sites has been vandalized by present day campers who have taken rocks from the cairns to use for campfire rings. Sites found in Robertson Draw have also been susceptible to effects from dispersed camping.

Over 170 dispersed camping sites along the Main Fork Rock Creek (#2421) were examined by CNF resource specialists during 2007. Dispersed camping sites were found near or on five previously recorded cultural resource sites consisting of cairns, the historic M-K Highway Camp, a prehistoric lithic artifact scatter and a site consisting of multiple cairns and a building foundation. Effects due to dispersed camping activity were observed at the lithic artifact scatter site in the form of vehicle rutting on an access road. Cairns at another site are being dismantled in order to construct a large outlined figure of stone. As a result of these investigations, 20 dispersed camping sites were identified for closure under Alternatives B, B Modified and C.

Cairns may pose a difficult situation when it comes to eligibility determination and NRHP evaluation. The definition of a cairn is “a mound of stone” but determining the age and function of a cairn may be difficult. A few examples of cairn functions include buffalo jump alignment markers, burials, cadastral survey markers, cache markers, campfire rings, fencepost or sign post supports, monuments honoring important events or people, rifle supports, Shepherd Monuments and trail markers. These functions can pertain to prehistoric, historic or both time periods. While the age and function of some cairns can be determined through historic documents or oral interviews, the age and function of some cairns is questionable unless they are dismantled. Native Americans consider cairns to be culturally sensitive features and avoidance or protection is the proper treatment rather than dismantling. Cairns on the CNF are considered culturally sensitive sites and are avoided and protected.

In compliance with a 2005 Washington Office directive (USDA Forest Service 2005) and following the public release of the DEIS 32 routes (9.24 miles) of proposed non system roads and trails

### **Chapter 3: Affected Environment and Environmental Consequences**

identified under Alternative B were inventoried utilizing pedestrian transects within a 150 foot wide corridor centered on these routes and six new cultural resource sites were recorded. Actual or potential effects to the sites, due to motor vehicle use, were documented and the results are incorporated into all the alternatives.

An ATV track was observed near one site located near Inferno Canyon on the Pryor Unit but this cairn is undisturbed and will continue to be monitored. A cairn and depression near Jimmy Joe Campground are undisturbed and will continue to be monitored. Two cairns near Lions Camp are undisturbed and will continue to be monitored. The former location of Richel Lodge is a popular dispersed camping area along the Main Fork Rock Creek. Although no standing structures are present at this location one abandoned historic ditch is being driven over by motor vehicles. This site will continue to be monitored and may require formal evaluation and consultation with the MT SHPO. A historic dug-in along Sage Creek is undisturbed and will continue to be monitored. A cairn near a developed picnic area along the Stillwater River is next to a road and near a recent campfire ring. This cairn will be monitored to insure that it is not driven over and the stones are not removed and used to construct additional campfire rings.

#### **3.2.2.2 Environmental Consequences - Archeological Resources**

##### ***Direct and Indirect Effects-Archeological Resources***

##### **Effects Common to All Alternatives**

Prehistoric and historic cultural resources are a nonrenewable resource. Significant cultural resources have many values including their potential to provide scientific information on human cultural history, interpretive and educational value, values associated with important people and events of significance in our history, and often an aesthetic value such as a prehistoric petroglyph or a historic landscape. Information present at a site, in the form of artifacts, features or simply its intact, undisturbed character can be used to increase our knowledge and understanding of past life ways, but only if this information is retrieved under controlled methods. For Native American groups and other traditional culture groups' archaeological and historic sites often have importance for religious and ceremonial purposes or simply as locations for traditional uses significant in a particular group's ongoing cultural identity.

The National Register defines four criteria to be used in the evaluation of sites: (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or (b) that are associated with the lives of persons significant in our past; or (c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or (d) that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR Section 60.4).

An effect, according to 36 CFR 800.9(a), may include an alteration to the property's characteristics of location, setting or use. Adverse effects are defined as those that may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association and include but are not limited to 1) physical destruction, damage or alteration of all or part of the property; 2) alteration of the character of the setting when that character contributes to the property's qualification for the National Register and 3) introduction of visual, audible or atmospheric elements that are out of character with the property or that alters its setting.

In an attempt to define effects more clearly, as they relate to #1 and #2 above, the CNF relies upon a threshold concept to measure effects to cultural resources. A site threshold has been reached when it is on the verge of losing the very qualities that could be considered eligible for nomination to the National Register. For example, if a previously constructed road coursed through a historic lime kiln such that the only evidence remaining is an oxidized soil stain along the road cutbank the site integrity would have been compromised, whereby it has lost all qualities necessary to be considered eligible for nomination to the National Register.

In contrast, an existing road may course through a lithic artifact scatter site containing intact subsurface cultural deposits. That part of the site containing the road corridor may be disturbed to the extent that it no longer contains information important to the prehistory of the area. The remaining undisturbed portion of the site may contain valuable information and, as such, the site threshold has not been reached and the site may still be considered Eligible for nomination to the National Register. The presence of the road has not threatened the threshold of the site. A new threat to the site may occur if additional vehicle tracks are rutted parallel to the existing road.

An example concerning loss of structures but retention of general setting is the vandalism to fasting beds on Dryhead Vista that has resulted in the obliteration of physical evidence that any such features ever existed. Although a number of fasting bed features that initially made up the site is gone the landscape setting and remaining structures may still retain enough integrity such that the site is still eligible for nomination to the National Register. This example is discussed in detail in the Traditional Cultural Properties section below.

Motorized use and to a lesser degree, non-motorized use, of public lands is an activity that has created a human influenced and/or manipulated landscape (Foster 1977: 107, 130) and has had various effects upon cultural sites in the past and, in many instances, continues today. Motorized use increases visitation and probability of impacts. Recreational motorized use, especially that of four-wheel drive and other off-highway-vehicles (OHV) has seen an ever-increasing trend since the 1960s. In comparing the motorized travel system on the Pryor Unit in 1918 (USDA Forest Service 1918) and in 1965 (USDA Forest Service 1965) there are only a few recognized road additions during a span of nearly fifty years. But in the years since 1965 the numbers of roads have at least doubled, reflecting an increase in motorized use.

Motorized use on, and its effects to, roads must also consider the age of roads and whether or not they represent cultural resources. For example, the Crooked Creek Road #2085, located on the Pryor Unit, was constructed during the 1920s and much of its original alignment is still intact and in use. At least eleven or twelve abandoned segments are still visible adjacent to the existing road. This road has been recorded and any proposed changes by the Forest Service require evaluation and consultation with the MT SHPO.

Several other roads on the Pryor Unit including Bear Canyon Road (#24921), Burnt Timber Ridge Road (#2849), Graham Trail (#2013), Sage Creek Road (#2144) and Stockman Trail (#2850) are similar in age and may also be potentially eligible historic properties. Roads on the Beartooth Unit that have already been recorded and found to be eligible historic properties include the East Rosebud Road (#2177), the West Rosebud Road (#2072), the Main Fork Rock Creek Road (#2421) and the West Fork Rock Creek Road (#2071)..

### **Chapter 3: Affected Environment and Environmental Consequences**

Numerous studies beginning during the early 1970s have documented the detrimental impacts of OHV use on archaeological sites by means of direct or indirect effects (Lyneis et al. 1980: 14; USDA Forest Service 2001: 55; USDA Forest Service 2002: 33). More roads result in more access to areas and increased effects to cultural resources.

A direct effect occurs when the action of the undertaking itself affects the cultural resource. Direct effects may be described as the breaking, crushing and scattering of cultural material when motorized vehicles are driven across or through sites. Soil compaction from wheel pressure and soil erosion processes may occur following removal of protective ground cover (i.e. vegetation and ground litter). Not only is there soil compaction and erosion as the ground surface becomes exposed, but the ground surface may become deflated. These types of site damage are especially apparent where concentrated and/or repeated vehicle travel occurs that causes rutting. Sites that consist of surface artifacts or features, or that contain intact subsurface cultural materials, are especially prone to damage and losses of valuable information due to motorized vehicle travel (ASPPN I-15 1990).

Actions associated with travel management which could have the potential to adversely affect prehistoric and historic cultural properties include increases in the type, intensity and duration of trail, road or land use. Of particular concern is the increase through the years of user-created roads and trails. The majority of these travel ways has been, and continues to be, created without engineering design and without input from a variety of other resource specialists, including archaeologists. Attempts to use these roads during inclement weather or when the roads are impassible may result in either deep/severe rutting or in the creation of parallel tracks along the initially established road. This action exposes buried cultural material and often churns up the matrix so that artifacts lose their context. Often, sites associated with these user-created travel ways are discovered by chance, exposing them to archaeologists and public visitor alike. Site damage has already occurred or is ongoing. Visually, as these user-created roads increase in number they become unsightly and may become permanent scars on the landscape.

Actions that have the potential to benefit cultural properties include decreases (but not necessarily closure or obliteration) in the type, intensity or duration of trail and road use where cultural properties are present or where the character of the historic route can be maintained or restored through a travel management decision.

An indirect effect is not caused by the action itself but is the secondary result of the undertaking. Increased site access and exposure of sites to the elements may result in a greater chance for looting and artifact displacement from erosion. Soil compaction and artifact displacement can result from foot, horse and motor vehicle traffic and from camping on prehistoric sites. Soil erosion and artifact looting associated with vegetative cover removed due to traffic and livestock use may also lead to site degradation.

An example of an indirect effect to sites involves the improved or increased access that a road may offer to a motorized vehicle user. The ability to access distant areas, relatively quickly and with relative ease, via motorized vehicles can increase visitation and consequently result in looting or vandalism. Highly visible structures are more prone to visits due to their attractive nature as destination points. Large numbers of people, along with inappropriate behavior, can alter or damage the very attributes that make the structure important or attractive as a destination. These behaviors include trampling (leading to erosion or feature damage), theft, wall or feature damage and other types of vandalism.

Sites that contain features, such as cairns, cribbed log structures, stone circles or historic buildings, may become damaged by actually driving over them or simply through acts of theft or vandalism. Motorized vehicles can more easily transport equipment (i.e. shovels, screens, hammers, crowbars, high-powered rifles) that can be used to damage or vandalize sites. These same vehicles can be used in theft to remove large items of value, whether this is weathered logs or lumber from a historic building or old mining equipment. These types of damage lessen the sites' integrity and are irreversible.

Certain sites are well known to vandals who dismantle structures (such as the fasting beds formally at Dryhead Vista) or who illegally collect artifacts (such as stone tools throughout the District). Several archaeological sites on the Pryor Unit have been popular destination spots to artifact collectors for years. Recent attempts by the CNF to mitigate some of these activities have focused on the restoration of a protective vegetation cover on sites to reduce the site surface exposure and to eliminate illegal collecting. The simple act of theft or removal of one or more artifacts from a site results in a loss of information about that site.

In the past, where vehicle access to sites may have been non-existent or limited, so too was the degree of site damage, artifact theft and vandalism. This is most dramatically represented at Dryhead Vista with the total loss of the six fasting bed/vision quest structures that were last documented in place in 1965. Studies have shown that increased access to public lands display a concurrent increase in the amount of vandalism of cultural resources (ASPPN I-13, 1989). Motorized vehicles have allowed improved access, increased visitation, increased damage, increased theft and increased vandalism to sites.

Beneficial indirect effects may include reduction in type and amount of traffic into the more remote areas through a decision to not designate certain routes for motorized use. Should cultural properties be located along a road or be crossed by a road, reducing the type and amount of traffic to the site may limit additional site disturbance and help preserve the site.

Any adverse effects to sites may require formal review in order to determine what actions are needed that will reduce, remove or mitigate the effects. Where appropriate, cooperation with interested tribes will occur during these site reviews. Under the protocol of the MTPA, all sites that are identified as potentially adversely affected by the travel management decision will be monitored and results of these monitors will be reported to the MT SHPO on an annual basis.

## **Alternative A**

### *Direct Effects*

Under this alternative ten sites are directly associated with roads that are proposed for a travel management designation change to public motorized use. Seven sites are located on the Pryor Unit and three sites are located on the Beartooth Unit. Most of these sites consist of lithic artifact scatters with intact subsurface cultural material and the direct effects consist of rutting or down-cutting of the existing roads that pass through the sites. Increased motor vehicle use would further expose these deposits resulting in loss of valuable information.

Two extremely important artifact scatter sites in the Pryor Unit, Big Springs Site and Mill Hollow Site, would continue to suffer damage from motorized vehicle rutting and erosion.

### **Chapter 3: Affected Environment and Environmental Consequences**

On the Beartooth Unit, one non system road proposed to be designated a system road crosses a historic ditch and at the remains of Richel Lodge vehicles are currently driving across an abandoned historic ditch.

#### *Indirect Effects*

Under this alternative, twelve sites may be indirectly affected due to the proposed travel management designation change to public motorized use. Nine sites are located on the Pryor Unit and three sites are located on the Beartooth Unit. These effects consist of potential vandalism to cairns, cribbed-log structures, fasting beds and historic log cabins and theft of historic and prehistoric artifacts. Cairns and fasting beds at some sites have been already been vandalized, and illegal artifact collecting has been ongoing at several of these sites. One cairn on the Beartooth Unit is next to a road and near a recent campfire ring. This feature is threatened with vehicles driving over it and dismantling to build additional campfire rings. The Benbow Mill area is a popular recreation area for the public and recently, the abandoned structures have become an area used for rifle and pistol target practice.

There is with increased potential for Stick City and Timber Town (two rare cribbed-log structure sites) to be threatened by vandalism visitation increases.

Five sites under this alternative will experience no effects due to designation of existing system roads to system motorized trails, system no designation or system administrative use only.

No change in dispersed camping practices along the Main Fork Rock Creek will continue to disturb two cultural resource sites and potentially disturb three sites.

### **Alternative B**

#### *Direct Effects*

Under this alternative five sites are directly associated with roads that are proposed for a travel management designation change to public motorized use. Four sites are located on the Pryor Unit and one site is located on the Beartooth Unit. These direct effects consist of rutting or down-cutting of the existing roads that pass through Pryor Unit lithic artifacts scatter sites due to increased motor vehicle use. Intact subsurface cultural material present at these sites would be further exposed due to increased motor vehicle use resulting in loss of valuable information. One site on the Beartooth Unit consists of the remains of Richel Lodge. Vehicles are currently driving across an abandoned historic ditch.

Two extremely important artifact scatter sites in the Pryor Unit, Big Springs Site and Mill Hollow Site, would be protected under this alternative.

#### *Indirect Effects*

Under this alternative, four sites may be indirectly affected due to the proposed travel management designation change to public motorized use. These effects consist of potential for vehicles driving over cairns near a road and theft of prehistoric artifacts. One cairn on the Beartooth Unit is next to a road and near a recent campfire ring. This feature is threatened with vehicles driving over it and dismantling to build additional campfire rings.

There is with increased potential for Stick City and Timber Town (two rare cribbed-log structure sites) to be threatened by vandalism visitation increases.

Under this alternative, effects to 16 sites will be reduced or removed due to system roads not designated; system administrative use only; system road with a dropped segment; or system administrative use with a dropped road segment.

Three areas, containing 20 dispersed camping sites along the Main Fork Rock Creek, are proposed for closure to protect three cultural resources.

### **Alternative C**

#### *Direct Effects*

Under this alternative there are no sites associated with roads that are proposed for a travel management designation change to public motorized use.

#### *Indirect Effects*

Under this alternative one site may be indirectly affected due to the proposed travel management designation change to public motorized use. One cairn on the Beartooth Unit is next to a road and near a recent campfire ring. This feature is threatened with vehicles driving over it and dismantling to build additional campfire rings.

Under this alternative, effects to 40 sites will be reduced or removed due to system roads not designated; system administrative use only; system road with a dropped segment; or system administrative use with a dropped road segment.

Dispersed camping under this alternative would not be allowed within a specified distance of designated motorized routes but parking within one vehicle length from the edge of system roads and trails would be allowed. While this may help protect many cultural resources located near roads, other sites would require monitoring to determine new effects.

### **No Action Alternative**

The No Action Alternative sets a baseline by considering the existing system road and trail system as defined by the CNF Forest Plan, Plan Amendments and all existing Forest Orders. Under the No Action Alternative there are 169 sites, 72 in the Pryor Unit and 97 in the Beartooth Unit, located within the 600 foot wide corridor centered on 45 existing system roads and 21 existing system trails. Only one road in the Pryor Unit and six roads in the Beartooth Unit are currently designated for administrative use only.

#### *Direct Effects*

Under this alternative direct effects are identified at 12 sites (nine in the Pryor Unit and three in the Beartooth Unit) while no effects are identified at 159 sites. These effects consist of rutting or tread down cutting.

#### *Indirect Effects*

Under this alternative indirect effects are identified at 15 sites (ten in the Pryor Unit and five in the Beartooth Unit). The designated public motorized roads continue to see an increase in use. This

### **Chapter 3: Affected Environment and Environmental Consequences**

increased use, particularly where sites are present, could result in damage to or loss of information at these sites through vandalism and illegal artifact collecting.

Overall, the No Action Alternative would result in continued degradation of some known sites through rutting or tread down cutting, illegal artifact collecting and vandalism. Unknown sites would be damaged or obliterated by similar means, without the knowledge of archaeologists. Loss of site integrity, site artifacts and site information would continue, and likely increase, as recreation use grows in both the Pryor Unit and the Beartooth Unit.

No change in dispersed camping practices along the Main Fork Rock Creek will continue to disturb two cultural resource sites and potentially disturb three sites.

#### **Alternative B Modified**

This alternative differs from Alternative B by designating an additional 11.72 miles of motorized public use routes, not designating 7.41 miles of motorized public use and designating 3.19 miles of administrative use only routes.

##### *Direct Effects*

Under this alternative six sites are directly associated with roads that are proposed for a travel management designation change to public motorized use. Four sites are located on the Pryor Unit and two sites are located on the Beartooth Unit. These direct effects consist of rutting or down-cutting of the existing roads that pass through Pryor Unit lithic artifacts scatter sites due to increased motor vehicle use. Intact subsurface cultural material present at these sites would be further exposed due to increased motor vehicle use resulting in loss of valuable information.

Effects to five sites located along Shriver Peak Road (#2088) would be reduced by not designating a segment of this road.

Effects to two extremely important artifact scatter sites in the Pryor Unit, Big Springs Site and Mill Hollow Site, would be reduced under this alternative.

One site on the Beartooth Unit consists of the remains of Richel Lodge. Vehicles are currently driving across an abandoned historic ditch. Another site on the Beartooth Unit, consisting of a historic irrigation ditch, is proposed for designation for administration use only. Motorized vehicle use across this historic ditch may damage the ditch.

##### *Indirect Effects*

Under this alternative, four sites may be indirectly affected due to the proposed travel management designation change to public motorized use. These effects consist of potential vehicle driving over cairns near a road and theft of prehistoric artifacts. One cairn on the Beartooth Unit is next to a road and near a recent campfire ring. This feature is threatened with vehicles driving over it and dismantling to build additional campfire rings.

Effects to Stick City and Timber Town, two rare cribbed-log structure sites, would be reduced under this alternative.

Under this alternative, effects to 19 sites will be reduced or removed due to system roads not designated; system administrative use only; system road with a dropped segment; or system administrative use with a dropped road segment.

Three areas, containing 20 dispersed camping sites along the Main Fork Rock Creek, are proposed for closure to protect cultural resources.

**Cumulative Effects - Archeological Resources**

Monitoring site conditions will continue in support of travel management as well as other Forest undertakings such as range development, fuels and timber management. Mitigation of these effects and site protective measures will continue to be employed in consultation with SHPO.

Additional inventory in response to this and future undertakings will add to the understanding of the area prehistory and history. Proposed nomination of the Dryhead Archeological and Traditional Cultural Property District will protect this area for future generations.

**3.2.2.3 Conclusion - Archaeological Resources**

For all alternatives compliance with the NHPA through the MTPA is required. A monitoring program will be implemented that will address sites identified as at risk from the decision, and measures to reduce, remove, or mitigate these effects will be taken in consultation with the MTSHPO.

In overall comparison, Alternative A consists of the highest count of sites (22) that are either currently being effected or may potentially be affected. Alternative C consists of the lowest site count (1) that is either currently being effected or may be affected. Alternative B and Alternative B Modified consist of nine and ten sites that are either currently being effected or may potentially be affected. The following table compares the action alternatives.

**Table 3-13. Potential Effects to Sites by Action Alternative and Geographic Unit**

Potential Effects	Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified
<b>Pryor Unit</b>					
Direct Effects	7 Sites	4 Sites	0 Sites	9 Sites	4 Sites
Indirect Effects	9 Sites	3 Sites	0 Sites	10 Sites	3 Sites
<b>Beartooth Unit</b>					
Direct Effects	3 Sites	1 Sites	0 Sites	3 Sites	2 Sites
Indirect Effects	3 Sites	1 Sites	1 Sites	5 Sites	1 Sites
<b>Entire District</b>					
Direct Effects	10 Sites	5 Sites	0 Sites	12 Sites	6 Sites
Indirect Effects	12 Sites	4 Sites	1 Sites	15 Sites	4 Sites
<b>Entire District</b>					
All Effects	22 Sites	9 Sites	1 Sites	27 Sites	10 Sites

**3.2.2.4 Affected Environment– Traditional Cultural Properties**

**Overview of Changes from the Draft to the Final EIS**

- Continued consultation with affected tribes

### **Chapter 3: Affected Environment and Environmental Consequences**

- In Alternative B Modified, the addition of protective measures for the Big Pryor cultural landscape.

#### ***Introduction***

American Indians and Alaskan Natives are recognized as people with distinct cultures and traditional values. They have a special and unique legal and political relationship with the Government of the United States as defined by history, treaties, statues, executive orders, court decisions and the U.S. Constitution. There is an emphasis on government-to-government relationships with federally recognized tribes, including consultation in order to identify rights and concerns during the development of plans, projects, programs and activities (USDA Forest Service 1997).

The 1992 amendments to NHPA specify that properties of traditional religious and cultural importance to an ethnic group referred to as traditional cultural properties (TCPs) may also be determined eligible for inclusion on the NRHP. Under NHPA, effects to “cultural resources of traditional religious and cultural importance” must be considered. A location or site has cultural value if its’ significance to American Indian beliefs or customs “has been ethnohistorically documented and if the site can be clearly defined” (Parker and King 1990:15-27). Locations of natural features significant in the mythology, cosmology, and history of a Native American group are potentially eligible to the National Register. Sites “ where Native American religious practitioners have historically gone, and are known or thought to be today, to perform ceremonial activities in accordance with traditional rules of practice”(Parker and King 1990:1) are also potentially eligible properties. In carrying out its responsibilities under Section 106, a federal agency is required to consult with any Indian tribe that attaches religious and cultural significance to such properties (16 USC 470a(d)(6)(A) and (B)) when any federal undertaking might affect them.

Federal agencies must also consider American Indian traditional use, belief system, religious practices and lifeway values as directed by the Archeological Resources Protection Act of 1979 (ARPA), the Native American Graves Protection and Repatriation Act (NAGPRA) and the American Indian Religious Freedom Act (AIRFA). Contemporary use sites for traditional or cultural purposes are provided protection under AIRFA. When management activities might limit current religious activities, restrict access to important ethnographic resources, alter sacred sites, or affect Indian burials, AIRFA stipulates the need for consultation with Indian tribes. Additionally, rights reserved under treaties may possess an inherent measure of resource protection. The Fort Laramie Treaties of 1851 and 1868 apply to the Beartooth and Pryor Units. Reserved resource rights and privileges associated with these treaties and other Indian agreements include activities such as hunting and gathering access to forest resources.

Under the USDA Forest Service Policy for NHPA compliance in Travel Management (2005), Forests are to consider roads, trails or areas that may be associated with TCPs that are important to tribes, or to other ethnic and social groups. Forests are to cooperate with tribes or other ethnic and social groups that ascribe traditional use to a property or area and this cooperation and consideration is to extend throughout the NHPA compliance process for this undertaking.

Coordination with pertinent Tribes has been ongoing in the form of the original project scoping letter, public meetings, agency meetings, letter correspondences and proposed/scheduled field trips which outlined the proposed project specifics and requested any concerns that they may have regarding cultural resources or TCPs. This coordination effort is intended to insure that any tribal concerns or comments are addressed throughout the NEPA process in regards to NHPA, ARPA, AIRFA, and

NAGPRA as well as through Government to Government consultation.

The study area is located within the Beartooth District of the Custer National Forest in south central Montana. It is composed of two topographically different units, the Beartooth and the Pryor, and is within traditional Crow Indian Territory. Both units, along with the lands in between, are considered “Crow Country” by the Crow and eloquently described by Crow Chief Arapooish:

*It has snowy mountains and sunny plains; all kinds of climates and good things for every season. When the summer heats scorch the prairies, you can draw up under the mountains, where the air is sweet and cool, the grass fresh, and bright streams come tumbling out of the snow banks. There you can hunt the elk, the deer, the antelope, when their skins are fit for dressing; there you will find plenty of white bears and mountain sheep...*

*In the autumn, when your horses are fat and strong from the mountain pastures, you can go down into the plains and hunt the buffalo, or trap beaver on the streams. And when winter comes on, you can take shelter in the woody bottoms along the rivers...*

*Crow country is exactly in the right place. Everything good is to be found there. There is no country like the Crow Country (Nabokov and Loendorf 1994).*

As detailed in the archaeological and historical analysis under Issue 5 Archaeological Resources, there have been a number of archaeological inventories and investigations and many of these projects have recorded archaeological sites that are considered cultural resources of traditional religious and cultural importance to Native Americans. In addition to the archaeological reports, several documents were found to contain extensive information on the traditional Indian use of the District.

The first is a letter received from Crow Cultural Commission Chairman George Reed who identified the Pryor Mountains as Arrow Shot Into Rock Mountains and having “much spiritual significance to the Apsaalooke (Crow) Nation”(Reed 2007). The Arrow Shot Into Rock Mountains are the home of the Little People. The Crow consider the whole Pryor, Arrow Shot Into Rock, Mountains as a sanctuary for individuals who venture off on fasting quests. Indeed, Mr. Reed says:

*“all the mountain ranges in the territory of the Apsaalooke (Crow) nation are sacred because that is where First Maker Travels as he watches his creation...’If you need to contact me you will find me along the backbone of the earth where I travel as I watch my possession’...These are the exact words that was said to His Arrows Are Sacred as he was being prepared to return to the Apsaalooke (Crow) people...” (Reed 2007).*

The second account is the ethnographic overview conducted by Sherri Deaver and Ann Kooistra-Manning for the Custer National Forest (CNF) in 1995. The purpose of this overview was to identify Native American groups who have used, or currently use, CNF administered lands for ceremonial and other traditional cultural activities; define culturally sensitive site types and their location on the CNF; and identify potential conflicts between CNF management practices and traditional cultural practices.

The Crow, Shoshone and Arapahoe were found to have historical and current ties to the District and a number of creeks, lakes, mountains and glaciers appear to have been named after Native Americans and their traditional activities such as Lodgepole Creek, Sioux Charley Lake, Sundance Lake, Teepee Creek, Crow Mountain, Red Lodge Creek and Sage Creek.

They found that the significance of the Pryor Mountain Unit to the Crow could not be overemphasized – the area was found to be used on a regular basis for fasting, plant collecting, subsistence activities such as tipi pole and fire wood collecting, and ceremonial practices. Pryor Gap, just north of the Pryor Unit, is significant not only in Crow history since it served as a major transportation route in

### Chapter 3: Affected Environment and Environmental Consequences

and out of the mountains, but it also has great spiritual significance since it is the home of the Little People. Other areas of the Pryors such as Dryhead Overlook are associated with the fasting of individuals such as Chief Plenty Coup who were important in Crow history.

Cultural resources associated with traditional Indian ceremonies, cultural practices and important events in tribal history were classified as culturally sensitive sites by Deaver and Kooistra-Manning (1995). Culturally sensitive sites identified within the District include stone ring sites, cairn sites, rock alignments, fasting sites, eagle trapping sites, and log structures. Five basic tribal concerns were expressed specifically for the District – respectful treatment of the burials; maintenance of access for plant and tipi pole gathering; maintenance and increased access for mineral resource gathering such as soapstone and paint pigment; respectful treatment of TCPs, especially sun dance grounds, fasting sites, rock art sites, and medicine wheels; and respectful treatment of hunting, fishing and root gathering sites (specifically requested by the Shoshone-Bannock).

The last document is a study by Peter Nabokov and Larry Loendorf conducted in 1994 that included lands managed by the CNF, Bureau of Land Management, the National Park Service and Bighorn Canyon National Recreation Area within and surrounding the Pryor Unit. Under this study, forty-one ethnographic resources were identified as important to the Crow Tribe. The following ethnographic resource locations were found on and directly adjacent to the CNF:

- Pryor Mountain which “was more sacred than its neighbors” and was to this mountain that “pilgrimages were made... the thunder had his home on this mountain, and storms could be seen sporting on its summit when fair weather ruled the neighboring country” (Janette Woodruff, in Nabokov and Loendorf 1994);
- Trail through Pryor Gap which connects the Clark Fork of the Yellowstone River Valley with the Bighorn River, along Pryor (Arrow) Creek through Pryor Gap (Shoots with the Arrow Gap). Rock Cairns mark the trail, although many have been removed where land cleared for agricultural fields. Still, several dozen cairns remain in an alignment through the gap.
- Trail marked by rock cairns on the southern flank of Big Pryor Mountain shows the access route from the mountains to Demi John Flats along Crooked Creek. These rock cairns may also designate or commemorate routes used for significant journeys as well as trail makers.
- Commissary Ridge Bison Drive - an important Crow buffalo jump described by Crow Elder Henry Old Coyote.
- Commissary Ridge Plant collection area - identified by Henry Old Coyote who described the entire Pryor Mountains as a commissary for the Crow. Loendorf (in Nabokov and Loendorf 1994) described an explanation given by Old Coyote “...within a radius of a few feet, Henry identified the plants that were edible, those that had medicinal use, and those that had other uses, such as straight pine for tipi poles...he wove together the inorganic and organic parts of the mountains while constantly reminding us that this was the commissary, the storehouse of life to the Crow Indians”. It is further identified as a root-plant (bitterroot, sego lily, Indian turnip) collection area and is still used by the Crow.
- Bear Canyon Conical Timber Lodge – only remaining example of conical pole lodge in the Pryor Mountains. Although the exact cultural affiliation is not known it may represent past activities of the Crow or other visiting tribes to the Pryor Unit.
- Timber Town and Stick City - considered houses made of dead –fall timber, which, according to Joe Medicine Crow were one of three types of lodges built by the Crow Indians. These structures are considered temporary houses and may have been used by traveling war parties serving as fortifications in case of attack.

- Vision Quest Sites – generally located on eastward-facing ridges or dramatic promontories in the Pryor and Big Horn Ranges. Three areas have been identified: Dryhead Overlook on East Pryor; Big Pryor/Sage Creek Overlook overlooking Sage Creek and Pryor Gap; and the east side of the Big Pryor Mountain called “where they saw the rope”.

Included in the study are recommendations for management of these important resources, and a call to treat the Pryors as an ethnographic landscape that is made up of places of “sacramental, subsistence, historical, and sentimental significance” to the Crow as well as other groups who identify with this unit (Nabokov and Loendorf 1994:A.1).

These studies found numerous areas within and near the District that offered Native American Indians the opportunity to reconnect with, and practice, the spiritual realm of human existence. Many of these spiritual areas are reflected today by the presence of animal skulls within stone circles or embedded in the forks of a tree, caves that may have served as the abodes for the Little People of Crow, cairns that may represent burials or offering structures, fasting beds/vision quest structures, stone circles that may have served as support structures during fasting ordeals and traditional plant collecting areas.

**Methodology**

In order to analyze potential effects to cultural resources of traditional religious and cultural importance, culturally sensitive sites, and TCPs from this undertaking, the archaeological record and available ethnographic accounts were reviewed to identify and map these cultural resources. Ethnographic association with the archaeologically recorded sites and place name locations were acquired by a search of archaeological database on the CNF and other historical and ethnographic literature for the District. Ongoing consultation with the Crow Cultural Commission identified additional locations. The sites were then mapped in relation to the road and trail network to assess the potential effects to these resources from motorized use of the roads and trails in both units. It should be noted that this is a very preliminary list and, through additional consultation and further archaeological inventory, will no doubt be expanded.

From this work, over 140 recorded cultural resource sites within the two units were found that could be identified as cultural resources of traditional religious and cultural importance. Seventy-nine of the 140 cultural resource sites are either crossed by system and non-system roads and/or trails, or located within a 600 foot wide corridor. Few sites have been formally evaluated for site eligibility for nomination to the NRHP. For this analysis, all undetermined sites are considered potentially eligible. A draft District nomination for the Dryhead Overlook is currently being compiled that will consist of over 200 features including fasting beds, bison jumps, rock alignments, drive lines, cairns, and stone circle sites within the CNF and BLM administered lands within this ethnographic landscape. These sites are further described by unit in the following tables.

**Table 3-14. Recorded Traditional Cultural Properties/ Culturally Sensitive Sites - Beartooth Unit**

Site Number	Site Name	Site Type	Eligible <sup>11</sup>
24CB00036	North Line Ridge	Cairn, stone feature	U
24CB00409*	Lost Picket Creek Site	stone circles	U
24CB01296	Friday PM Site	Stone circles, cairn	U

<sup>11</sup> Eligible = Eligible for nomination to the NRHP; E = Eligible; U = Undetermined; \* = Priority Asset

**Chapter 3: Affected Environment and Environmental Consequences**

**Table 3-14. Recorded Traditional Cultural Properties/ Culturally Sensitive Sites - Beartooth Unit**

Site Number	Site Name	Site Type	Eligible <sup>11</sup>
24CB01328*	RLC-08	Cairn	E
24CB01540	D2-00-19-03	Cairn, stone feature	U
24CB01546	D2-00-19-09	Stone circles	U
24CB01550	D2-00-19-13	Cairns	U
24CB01551	D2-00-19-14	Cairn	U
24CB01625	D2-01-09-01	cairn	U
24CB01645	WFRC-01	cairn	U
24CB01646	WFRC-02	stone circle	U
24CB01647	WFRC-03	cairn	U
24CB01648	WFRC-04	cairn	U
24CB01649	WFRC-05	stone structure, depression	U
24CB01650	WFRC-06	cairn	U
24CB01651	WFRC-07	cairn	U
24CB01652	WFRC-08	cairn	U
24CB01653	WFRC-09	stone circle	U
24CB01800	Robertson Draw-04	cairn, stone structure	U
24CB01853		stone structure	U
24CB01854		cairn	U
24CB01894		cairns	U
24CB01895	Jimmy Joe	cairns	U
24CB01955		cairn	U
24CB01956		Cairn, stone circle	U
24CB01957		cairn	U
24CB01958		cairn	U
24CB01959		cairn	U
24CB01960		cairn	U
24CB01961		cairn	U
24CB02046	Parkside-01	cairns	U
24ST00280*	Merv's elk site	Cairn, elk antler	E
24ST00343	Cathedral Fire - 02	cairns	U
24ST00346	WFRC-01	cairn	U
24ST00354	RG-01	cairns	U
24ST00370		cairn	U
24ST00376		cairn	U
24CB02100	Inferno Cairn	cairn	U
24CB02102	Lions Cairns	cairn	U
24ST00379		cairns, rock alignment	U

**Table 3-15. Recorded Traditional Cultural Properties/ Culturally Sensitive Sites - Pryor Unit**

Site Number	Site Name	Site Type	Eligible
24CB00159		bison kill	U

**Table 3-15. Recorded Traditional Cultural Properties/ Culturally Sensitive Sites - Pryor Unit**

Site Number	Site Name	Site Type	Eligible
24CB00419*	Dryhead Overlook Site	fasting beds	U
24CB00608/833*	Overlook/Ice Cave Buffalo Jump	rock alignment, kill site	U
24CB00759	Bear Trail Site	Artifact scatter, stone circles	U
24CB00776*	Timber Town	log and stone structures	E
24CB00777*	Big Springs	artifact scatter, cairns	E
24CB00834	Quiet Pine Site	artifact scatter, cairn	U
24CB00849	Piney Springs Site	Stone circles, artifact scatter	U
24CB00863*	Commissary Ridge Bison Kill	Bison kill	U
24CB00893*	Signal Fire Site	Signal fire wood	E
24CB00894*	Stick City	log structures	E
24CB01031	D2-16-02	Cairn	U
24CB01371	D2-98-16-01	Cairn	U
24CB01373	Pryor 98-01	Cairn	U
24CB01374	Pryor 98-02	Cairn	U
24CB01376	Pryor 98-04	Cairn	U
24CB01377	Pryor 98-05	Cairn	U
24CB01378	Pryor 98-06	Cairn	U
24CB01383*	Where they saw the rope	fasting beds	E
24CB01384	Pryor 98-12	Cairn	U
24CB01385	Pryor 98-13	Cairn	U
24CB01386	Pryor 98-14	Cairn, artifact scatter, stone circle	U
24CB01388*	Bear Canyon Timber Lodge	Timber lodge	U
24CB01529	D2-00-06-01	Cairn	U
24CB01533	Fog Runner	Cairn, artifact scatter	U
24CB01793	DHVRoad-01	stone feature	U
24CB01794	DHVRoad-02	cairn	U
24CB01795	DHVRoad-03	cairn	U
24CB01884		cairn	U
24CB01885		Cairn, artifact scatter	U
24CB01890	GA-06-01	cairn	U
24CB01891	GA-06-02	cairn	U
24CB01892	GA-06-03	cairn	U

As can be seen from the tables, most of the culturally sensitive sites appear to be cairn sites. As noted earlier, these rock features may have served a variety of functions. Native Americans consider cairns to be culturally sensitive features since they could be burials and/or important markers, and avoidance and protection is considered the most appropriate treatment.

Along with the recorded sites displayed above are three traditional cultural property/ethnographic “landscapes” described earlier which include Commissary Ridge plant collection area; the Dryhead Overlook; the Big Pryor Overlook. The Big Pryor Overlook refer to fasting areas along the north and east perimeter of Big Pryor, including the location of “where they saw the rope”. In the Beartooth Unit, consultation with the Crow found the area of Robertson Draw to contain a number of culturally

## Chapter 3: Affected Environment and Environmental Consequences

sensitive sites that should be protected.

### 3.2.2.5 Environmental Consequences - Traditional Cultural Properties (TCPs)

#### *Direct, Indirect, and Cumulative Effects-Traditional Cultural Properties*

##### **Effects Common to All Alternatives**

According to Section 800.9 (a) of the NHPA an undertaking "has an effect on a historic property when the undertaking may alter characteristics of the property that may qualify the property for inclusion in the National Register." Alteration to features of the property's location, setting, or use may be relevant depending on the property's significant characteristics. Further, Section 800.9 (b) of the act specifies, "...an undertaking is considered to have an adverse effect when the effect on a historic property may diminish the integrity of the property's location, design, setting, workmanship, feeling or association".

Culturally sensitive sites and TCPs often consist of or include archaeological sites. Specific classes of sites identified as culturally sensitive require the protection of site setting as well as the visible remains. These sites include vision quest markers, cairns, eagle trapping pits, rock imagery, and certain types of stone circles. While specific sites have not been identified by the tribes as culturally sensitive or TCPs (with the exception of Dryhead Overlook) at this time, for this analysis all recorded culturally sensitive sites are treated as if they are potentially TCPs.

The characteristics of the ethnographic landscape that contribute to the use of a traditional cultural property (TCP) may include visual setting, qualities of spiritual reflection, renewal and sanctuary; natural setting; and unique ecosystem. The physical environment provides a basis upon which the integral relationships to the TCPs depend. Maintenance of the setting and its relationship with the surrounding lands become vital to the preservation of these sites and the cultural landscape.

Adverse effects could be in the form of direct, indirect, or cumulative impacts. Direct impacts are physical, and adversely affect the site or its setting. For this undertaking, new road or trail construction and/or change of use would be the primary direct impact affecting sites or structures by either destroying or damaging the site, causing isolation from or alteration of its surrounding environment, or the alteration of site setting by introducing visual, audible, or atmospheric elements that are out of character. Adverse effects to setting have especially serious consequences for TCPs, since these sites were chosen for their pristine qualities and remoteness, among other things. Introduction of noise, smells, dust along with increased recreational visitation and accessibility may adversely affect the TCPs and their continued use.

Increased recreational access and visitation also introduce the potential for destruction or vandalism of TCPs. Comparatively remote sites were naturally protected from direct and indirect impacts due to difficulty in access. With the availability of new, more versatile motorized vehicles, access to more remote areas of public lands is possible. This new wave of motorized use has introduced more human presence in these remote areas and has left a mark on the ethnographic landscape through the pioneering of roads and trails. Vandalism and destruction of TCPs have unfortunately been a subsequent indirect effect of increased access.

A prime example of this is what has occurred and continues to occur at Dryhead Overlook. The Dryhead Overlook is now one of the most popular public recreation areas in the Pryor Mountains. Of significant concern is the increased use of the area, both on and off established roads, by motorized

vehicle recreationists and the vandalism of several fasting bed/vision quest structures. The Dryhead overlook was recorded in 1952 and photographs taken at that time display fasting beds that are no longer present (see Figure 3-1). At the time of recording, access to the site was along an unimproved trail considered accessible only by four wheel drive vehicles. In 1965, a recreation plan called for the construction of a parking lot and loop for public access to the overlook. Recreation design maps from 1965 display plans to construct a loop road, parking stalls, outhouse, paths and overlook wall (to protect the public!). These plans also note six “rectangular Indian features”. The original plans were followed for the loop access and parking area, but the rest of the design plans were not implemented. The six “Indian features” no longer exist, having been vandalized and destroyed over the years. Loss of these sacramental features is attributable to unrestricted visitation, lack of interpretation at the overlook, and lack of protection. Continued traditional use of more remote areas within the overlook is a testimony to the lasting importance of this ethnographic landscape but continued motorized intrusion may eventually take its toll and prove fatal to the future use of this important traditional cultural property.

Indirect effects would not immediately result in physical alteration of site or setting. A new access road into an area containing significant sites or structures would allow public access and exposure of the properties, and potentially decreasing the seclusion and quiet necessary for many of the traditional practices.

This use of motorized vehicles, especially ATVs, allows people to cover more ground off roads and trails and has increased exposure of the more remote cultural sites to vandalism and illicit collecting. The incidence of vandalism and illicit collection is also very much influenced by the level of visitation and access to certain areas. Greater visitor use to some areas has led to the increase of vandalism, illicit collection, littering and disturbance to cultural sites. Vandalism has also increased in previously inaccessible areas, due in part to the fact that many visitors now use motorized vehicles that are capable of reaching these formerly isolated areas. While cultural properties situated along designated trails and road corridors can be signed, monitored, patrolled and protected, the impacts outside of these areas are largely uncontrolled and the extent of impact unknown.

The more people who visit an area increases, the potential for vandalism of the cultural resource and general degradation of the historic and natural landscape increases. Motorized travel increases the number of people who travel to these areas. Crow Cultural Commission Chairman George Reed states that motorized vehicles are threatening the sacredness, solitude and pollution free atmosphere of the Pryor, Arrow Shot Into Rock, Mountain, the last sacred place where individuals go for guidance and prayer without disturbance and interference. He calls for restriction of motorized vehicle travel in the Pryor Unit.

**Figure 3-1. 24CB419 - Dryhead Overlook Site**



Left to right: Waldo M. Wedel, Frank P. Wedel and Achilles (who thought he had no heels) caption and photograph by Waldo R. Wedel, June 29, 1952



Approximate photo point of June 29, 1952; photo reference MWB-2003-29, frame 5; September 21, 2003

The following tables display the potential effects to TCPs relative to road for each alternative. They are displayed by Beartooth and Pryor Units. Effects were analyzed at two scales: 1) Recorded cultural site scale to consider effects to cultural sites that have a boundary defined; and 2) Unit scale to consider effects to the ethnographic landscapes. The indices used are the same as described above for archaeological sites - the number and type (TCPs and/or ethnographic landscapes) whose integrity or NRHP eligibility status could be affected. Adverse effects considered are impacts to feeling and association of the properties in question and include access, vandalism, and disruption of the site and landscape setting. While there appears to be affects to the Commissary Ridge Plant Collection area, this effect is for the most part beneficial for increasing access for Traditional Practitioners. Administrative use for some of the roads is considered a beneficial effect since the access for the general public is reduced, and incidences of vandalism and indirect effects from camping should be removed. For these reasons, Commissary Ridge landscape and Administrative only road effects are not included in the summary line displaying potential and on-going adverse effects.

**Table 3-16. Motorized Route Potential Effects By Alternative<sup>12</sup> – Beartooth Unit**

Route No. – Beartooth Unit	Site Number	Effect	Alt. A	Alt. B	Alt. C	No Action	Alt. B Mod
2008	24CB01546	Access	S	S	S	S	S
	24CB01550	Access	S	S	S	S	S
	24CB01800	Access	S	S	S	S	S
	24CB01894	Access	S	S	S	S	S
	24CB01296	Road, Access	S	S	S	S	S
20083	24CB01540	Access	Y	-	-	-	-
20084a	24CB00036	Access, Vandalism, Camping	Y	-	-	-	-
2071	24CB01645	Camping	Y/S	Y/S	-	Y/S	Y/S
	24CB01646	Camping	Y/S	Y/S	-	Y/S	Y/S
	24CB01647	Camping	Y/S	Y/S	-	Y/S	Y/S
	24CB01648	Camping	Y/S	Y/S	-	Y/S	Y/S
	24CB01649	Camping	Y/S	Y/S	-	Y/S	Y/S
	24CB01650	Camping	Y/S	Y/S	-	Y/S	Y/S
	24CB01651	Camping	Y/S	Y/S	-	Y/S	Y/S
	24CB01652	Camping	Y/S	Y/S	-	Y/S	Y/S
	24CB01653	Camping	Y/S	Y/S	-	Y/S	Y/S
234262	24CB2102	Vandalism	A	A	A	A	A
24004	24ST0379	Vandalism	Y	Y	Y	-	Y
24147	24ST00280	Vandalism	Y	Y	A	-	Y
2421	24CB01955	Camping	Y	Y	-	Y	Y
	24CB01956	Camping	Y	Y	-	Y	Y
	24CB01957	Camping	Y	Y	-	Y	Y
	24CB01958	Camping	Y	Y	-	Y	Y
	24CB01959	Camping	Y	Y	-	Y	Y
	24CB01960	Camping	Y	-	-	Y	-
	24CB01961	Camping	Y	-	-	Y	-

<sup>12</sup> A = Administrative Use; Y = Yearlong; S = Seasonal; Y/S = Part year long and part seasonal; - = not affected

**Table 3-16. Motorized Route Potential Effects By Alternative<sup>12</sup> – Beartooth Unit**

Route No. – Beartooth Unit	Site Number	Effect	Alt. A	Alt. B	Alt. C	No Action	Alt. B Mod
	24CB00409	Vandalism	Y	-	-	Y	-
	24CB01895	Vandalism	Y	-	-	Y	-
2846	24ST00346	Camping	Y	Y	-	Y	Y
	24ST00354	Camping	Y	Y	-	Y	Y
2846F	24ST00343	Access	Y	A	A	Y	A
<b>Total Potential Adverse Effects Sites/Landscapes</b>	<b>31/0</b>		<b>30/0</b>	<b>23/0</b>	<b>6/0</b>	<b>25/0</b>	<b>23/0</b>

**Table 3-17. Motorized Route Potential Effects By Alternative – Pryor Unit**

Route No. – Pryor Unit	Site Number	Effect	Alt. A	Alt. B	Alt. C	No Action	Alt. B Mod
20162	24CB00776	Road, Access, Vandalism	Y	-	-	-	-
20182	24CB2100	Access	Y	Y	-	-	Y
2088	24CB00893	Access	Y	S	Y	Y	-
	24CB01383	Access	Y	S	Y	Y	-
	24CB01384	Access	Y	S	Y	Y	-
	24CB01385	Access	Y	S	Y	Y	-
	24CB01386	Road, Vandalism, Access	Y	S	Y	Y	-
	Big Pryor Overlook	Access, Vandalism	Y	S	Y	Y	-
209116	24CB00777	Road, Access	Y	-	-	-	-
2091T	24CB01388	Access, Vandalism	Y	-	-	-	-
	24CB00894	Road, Access, Vandalism	Y	-	-	-	-
2092	24CB00863	Access	Y	Y	-	Y	Y
	Commissary Plant Collection	Access	Y	S	Y	Y	S
2095	24CB00777	Road	Y	A	A	Y	A
20972	24CB01031	Road	Y	S	-	-	S
2308	24CB00419	Access	Y	S	S	Y	S
	24CB00608/833	Road, Access, Vandalism	Y	S	S	Y	S
	Dryhead Overlook	Road, Access, Vandalism	Y	S	S	Y	S
2308B	24CB00419	Road, Access, Vandalism	Y	-	S	Y	-
	Dryhead Overlook	Road, Access, Vandalism	Y	-	S	Y	-
2308B1	24CB00419	Road, Access, Vandalism	Y	-	-	-	-
	Dryhead Overlook	Road, Access, Vandalism	Y	-	-	-	-
<b>Total Potential Adverse Effects Sites/Landscapes</b>	<b>17/3</b>		<b>17/2</b>	<b>12/1</b>	<b>12/2</b>	<b>14/2</b>	<b>5/0</b>

**Alternative A**

Overall, Alternative A increases access to more people and to a number of remote areas within the two units. Increased access or ease in access to formerly remote traditionally significant ceremonial or gathering areas will then be available to all, potentially decreasing the privacy, seclusion and quiet necessary for many traditional cultural practices. Designation of non-system roads and/or trails to

system roads and/or trails may increase accessibility to remote areas which have been used for prayer and fasting activities where seclusion is required. Increased access often increases the opportunity for site vandalism and illicit artifact collection. Due the relative remoteness of the units, development of roads near the units opens up large areas for this illicit activity.

Opening new roads and/or trails would require more archaeological inventory and environmental assessments which may result in the identification of more TCPs and/or more information on the distribution of culturally significant plant, animal, mineral and fossil resources. This information could be useful to traditional Indian Communities. It is possible that roads developed can increase or ease access to traditionally significant ceremonial or gathering places. However, increasing or easing of access to traditionally significant ceremonial or gathering areas would make them available for all. There is the potential to decrease the seclusion and quiet necessary for many traditional cultural practices.

For the Beartooth Unit, the addition of road spurs in Robertson Draw will only increase access to and exposure of cairn and stone features already being vandalized by visitors and campers within the draw. Additional public access along the Beartooth Christian Ranch Road and Horseman Flat NW may threaten the preservation of important features along these routes. Dispersed vehicle camping activities along the West Fork of Rock Creek, Main Fork of Rock Creek and West Fork of Stillwater will continue to affect cairn features concentrated along these routes.

Within the Pryor Unit, the addition of roads #20162, #209116, #20972 and #2091T would permit access to now remote areas of the unit and expose a number of unique and fragile TCPs to inappropriate visitation and potential vandalism. Increased access has been shown to lead to an increase in vandalism, and including these routes could lead to the loss of these irreplaceable cultural resources. The three route additions do not connect with other routes but terminate at a dead end turnaround – this would further concentrate traffic in these areas and further expose the TCPs to damaging impacts.

Year round access along the Pryor Mountain road to the Dryhead Overlook would compound an already existing problem of damage to the site setting, reduction of the area needed to fasting, and continued vandalism of TCPs features. Addition of the Dryhead Loop cutoff concentrated traffic at the overlook leading to even more potential vandalism. The additional route plus the increased year round use of the Pryor Mountain road and Dryhead Loop may threaten the nomination of the Dryhead Archaeological and Traditional Use District to the NRHP.

Shriver Peak road accesses the Big Pryor Overlook which is now a relatively remote location but still can be visited by motorized traffic. Any increase in access to this area threatens to turn this fasting area into the same circumstance as Dryhead Overlook has experienced. Increased traffic can be expected with the “high country loop” provided by routes 2091 and 2095A and portions of the Shriver Peak Road that may further damage the site setting.

Addition of the spur road to the Bainbridge loop road may further affect TCP features at the end of the spur where motorized vehicle users may stop and “catch the view”. With little room to turn around at the dead end, concentrated traffic may lead to damage of these irreplaceable features. With increased traffic and visitation comes the higher potential for vandalism of these TCPs.

Access to and along Commissary Ridge would allow continued motorized access to plant collection

### **Chapter 3: Affected Environment and Environmental Consequences**

areas, but may also cause vandalism to important TCPs at the end of the route. Here, use would be concentrated at the dead end as vehicles turn around and park.

#### **Alternative B**

Alternative B allows for seasonal motorized access along existing system roads and administrative access to two areas of traditional cultural concerns. The most important feature of this alternative is the preservation and protection measures for Dryhead Overlook through the restriction of direct access to this important TCP and cultural landscape.

For the Beartooth Unit, restricting access to Road #2208 in Robertson Draw may reduce some of the access to and exposure of cairn and stone features currently being vandalized by visitors and campers within the draw. Additional public access along the Beartooth Christian Ranch road may threaten the preservation of important features along that route, but restricting access to administrative use along Horseman Flat NW may provide needed protection to TCP features along that route. Dispersed vehicle camping activities along the West Fork of Rock Creek, Main Fork of Rock Creek, and West Fork of the Stillwater may continue to affect cairn features concentrated along these routes, but the removal of several of the concentrated use may reduce the potential effects at four sites.

Within the Pryor Unit, the addition of seasonal use of road #20972 still permits access to a remote area of the unit and exposes a TCP to potential vandalism. Increased access has been shown to lead to an increase in vandalism, and including this route could lead to the loss of this irreplaceable cultural resource. The route addition does not connect with other routes and dead ends at the end of the route – this could further concentrate traffic in this area and further expose the TCP to damaging impacts.

Seasonal access along the Pryor Mountain road to the Dryhead Overlook may reduce some of the existing problems of damage to site setting, reduction of appropriate areas needed for fasting, and continued vandalism of TCPs features. Easy access to the overlook rim, however, would be restricted by closing the Dryhead Loop route. Loss of many of the TCP features has been attributed to unrestricted visitation, lack of interpretation at the overlook, and lack of protection (Nabokov and Loendorf 1994). While it will be very difficult to deny or limit access to the immediate overlook since the pattern of use of the overlook for its view is so ingrained with the public, access to the edge of the scarp in either direction, from the immediate overlook site, needs to be limited in some way to allow for solitude for fasting activities and to protect the TCPs from further vandalism. Access for all of the public, including traditional cultural practitioners would be by walking from the Pryor Road to the overlook. These changes may ensure continued use of the Dryhead Overlook for traditional religious activities and preserve the features included in the proposed Dryhead Overlook Archaeological and Traditional use District.

Shriver Peak Road accesses the Big Pryor Overlook which is now a relatively remote location but still can be visited by motorized traffic. Any increase in access to this area threatens to expose these fasting areas to the same vandalism circumstances that the Dryhead Overlook has experienced. The seasonal use restriction may alleviate some of the access damage, but the primary season of use is when most of the motorized use activity occurs that can damage the TCPs and affect the site setting. Increased traffic can be expected with the use of the seasonal “high country loop” provided by a portion of this route and routes 2091 and 2095A which could further affect the overlook setting with the introduction of noise, dust and fumes. Dispersed vehicle camping at the end of the route may begin to affect cairn locations much the same as is occurring in the areas of the Beartooth Unit.

Seasonal access to and along Commissary Ridge would still allow continued motorized access to plant collection areas during the time the site would be used, but dropping the end spur of the road would alleviate potential effects to important TCPs at the end of the dead end route.

### **Alternative C**

While this alternative may be considered the most restrictive of the alternatives presented, it still allows access to many remote areas of the two units for motorized recreation. Restricting access to public lands can have both a beneficial and adverse effects on traditional cultural activities – restricting access may be beneficial when it preserves the solitude and quiet necessary for fasting, prayer and other ceremonies. Negative effects would occur when it restricts the ability to collect traditionally important plant, animal, mineral and fossil resources. This alternative, while allowing access of motorized vehicles to most of the more popular routes that are now available, does restrict access of motorized vehicles to more remote and pristine areas for both units. This does help protect, in part, the ethnographic landscape of the Pryor, Arrow Shot Into Rock, Mountain.

For the Beartooth Unit, restricting access to Road #2208 in Robertson Draw may reduce some of the access to and exposure of cairn and stone features currently being vandalized by visitors and campers within the draw. Administrative use access along the Beartooth Christen Ranch road and Horseman Flat NW may provide needed protection to the TCP features along these routes. The elimination of dispersed vehicle camping activities along 600 foot wide corridors of the West Fork of Rock Creek and West Fork of the Stillwater would reduce the effects to cairn features concentrated along these roads. Restrictions along the Main Fork of Rock Creek would help protect the cairn features located along this road.

Within the Pryor Unit, seasonal access along the Pryor Mountain Road to the Dryhead Overlook may reduce some of the existing problems of damage to the site setting, reduction of the area needed for fasting, and continued vandalism of TCPs features. Easy access to the overlook rim, however, would continue despite the seasonal access restriction assigned to the Dryhead Loop since it is that season that the overlook has the greatest use by visitors as well as religious practitioners. Loss of many of the TCP features has been attributed to unrestricted visitation and easy access.

Shriver Peak road accesses the Big Pryor Overlook which is now a relatively remote location but still can be visited by motorized traffic. Any increase in access to this area threatens the pristine site setting and introduces the likelihood of vandalism, much as has occurred to the Dryhead Overlook TCP features. Increased traffic can be expected with the use of the “high Country Loop” provided by a portion of this route and routes 2091 and 2095A which could further affect the overlook setting with the introduction of noise dust, and fumes. Dispersed vehicle camping areas at the end of the route may begin to affected TCP features like similar areas in Robertson Draw on the Beartooth Unit.

Restricting traffic to administrative use along the Bainbridge loop road would reduce the effects to the TCP features along the route. Year round access to and along the Commissary Ridge would still allow continued motorized access to plant collection areas during the time the site would be used, but shortening the route may reduce the effects to important TCPs located at the end of the route.

### **No Action Alternative**

The present condition of both of the units is a result of this alternative. The present network of system roads have allowed access to important plant collection areas and fasting locations, but have also allowed for the partial destruction of a once remote and pristine ethnographic landscape.

### **Chapter 3: Affected Environment and Environmental Consequences**

For the Beartooth Unit, dispersed vehicle camping activities that are affecting TCP features along the West Fork of Rock Creek, Main Fork of Rock Creek, and West Fork of the Stillwater would continue.

Within the Pryor Unit, year round access along the Pryor Mountain Road to the Dryhead Overlook and the use of the Dryhead Loop would continue to damage the site setting, further reduce areas needed for traditional practices, and add to the loss of more TCP features. Big Pryor Overlook, currently a relatively remote location, would continue to receive effects from motorized traffic and could eventually be affected to the same extent as Dryhead Overlook. Increased traffic can also be expected as more recreational users discover these routes and use the “high country loop”.

Year long use along the Bainbridge Loop road would continue to expose TCP features along the route to vandalism and other access problems.

#### **Alternative B Modified**

Effects from this alternative are basically the same as Alternative B with one important exception – it protects the Big Pryor overlook by dropping a segment of road 2088 where most of the fasting areas and cultural sensitive sites are located. By dropping the segment before it reaches the Shriver Peak and the Crater Ice Cave, motorized access over TCP sites at Shriver Peak would be reduced. Removing motorized access along the Big Pryor Overlook should reduce the possibility that this overlook would suffer from the same fate as portions of the Dryhead overlook.

#### ***Cumulative Effects-Traditional Cultural Properties***

As our national population grows and the west becomes increasingly developed for minerals, residences, and recreational sites, it is becoming increasingly difficult for practitioners of Native religions (or other practitioners) to find places for ceremonial purposes and traditional cultural practices. Fasting overlooks and plant gathering areas that were once isolated locations have become more rare, or harder to utilize, for religious purposes as development and increased access continues. This loss, along with the loss of other TCPs and ethnographic landscapes are irreplaceable and very difficult, if not impossible to mitigate.

More access, due to improved and additional system roads, may result in increased visitation, especially to the more remote locations in the units. These visitors might not respect the privacy of religious practitioners and will add more noise and vehicle effluents. Under Alternatives B and B Modified, provisions for Dryhead Overlook may allow continued and future use by practitioners. Alternative B Modified would also reduce the potential effects to the Big Pryor Overlook from increased accessed.

#### **3.2.2.6 Conclusion - Traditional Cultural Properties**

The CNF has been utilized through the centuries by prehistoric, historic and contemporary cultures and this use is reflected in the landscape we see today. Contemporary use includes traditional cultural properties, grazing, mineral extraction and recreation. The last use includes hiking, motorized touring, and off highway vehicle driving, and was the focus of this analysis.

Unmanaged motorized vehicle use has come in conflict with the other forest uses and has had adverse effects to archaeological and traditional cultural properties. Alternatives A and the No Action alternatives do little to curb these effects and may in fact introduce more detrimental effects.

Alternative C, while considering the fewest roads and cumulatively may result in reducing adverse effects for some of the archaeological resources, it does not address two significant cultural landscapes – the Dryhead overlook and the Big Pryor overlook.

Alternative B identifies some measures to reduce effects to archaeological and traditional cultural properties, but still neglects the need to protect the Big Pryor cultural landscape. The Alternative B Modified includes some protection for all three cultural landscapes that promises to reduce the effects to these non-renewable and vital resources.

**Table 3-18. Comparison of Potential Effects to Traditional Cultural Properties by Alternative**

Feature		Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
Number of Sites potentially affected (directly and indirectly)	Pryor	16	7	0	19	7
	Beartooth	6	2	1	7	3
	District	22	9	1	26	10
Number of Cultural Landscapes potentially affected	Pryor	2	1	2	2	0
	Beartooth	0	0	0	0	0
	District	2	1	2	2	0
Number of Traditional Cultural Properties potentially affected within the project area.	Pryor	17	12	12	14	5
	Beartooth	30	23	6	25	23
	District	47	35	18	39	28

For all alternatives compliance with the NRHP through the MTPA is required. An extensive monitoring program will be implemented that will address sites identified as at risk from the decision, and measures to reduce, remove, or mitigate these effects will be taken in consultation with the MTSHPPO.

### 3.3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES – OTHER ISSUES

#### 3.3.1 WATER QUALITY, FISHERIES, AND AQUATICS

##### *Introduction*

This section outlines affected environment and environmental effects of travel management to water resources. This section also addresses the impacts of motorized and non-motorized uses on Forest Service Region 1 sensitive fish and amphibian species, management indicator aquatic species, and aquatic habitat.

##### 3.3.1.1 Affected Environment – Water Quality

##### *Overview of Changes from the Draft to the Final EIS*

- Changes to the water quality assessment were a result of public comments that requested clarification or change in the analysis. Narratives under Route Risk Analysis, TMDLs, and Effects Common to All Action Alternatives were expanded to meet these requests.

### Chapter 3: Affected Environment and Environmental Consequences

- The Route Risk Analysis was revised by eliminating route segments that extended significantly off forest and adjusting the risk category for six routes. Although the number of routes did not change substantially, the total miles did.
- The effects discussion also changed to more closely follow the purpose and need to identify opportunities to take action to minimize or eliminate water quality impacts on some routes or sites through future decisions, rather than incorporate those opportunities into the Record of Decision for this FEIS.

#### ***Applicable Laws, Regulations, and Policy***

Federal Clean Water Act requires Federal Agencies to comply with all federal, state, and local requirements, administrative authority, process and sanctions related to the control and abatement of water pollution (CWA, Sections 313(a) and 319(k)). The Act gives authority to individual States to develop, review, and enforce water quality standards under Section 303. This section also requires the States to identify existing water bodies that do not meet water quality standards, and develop plans to meet them. These plans are commonly called TMDLs, an acronym for total maximum daily load.

Federal Multiple Use Sustained Yield Act of 1960 sets policy to define why the national forests were established and how they should be administered relative to outdoor recreation, range, timber, watershed, and wildlife and fish purposes. [T]hat some land will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output (16 USC 2 (I); Sec 528).

Montana Water Quality Act directed the Montana Department of Environmental Quality (MTDEQ) to develop a water quality classification system, developed water quality standards to be applied to various water classes, and identified water bodies that do not meet standards (TMDL List). MTDEQ has classified most waters within the analysis area and area as B-1 waters. The beneficial uses associated with this classification include; drinking, culinary and food processing purposes, after conventional treatment; bathing, swimming, and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl, and furbearers; and agricultural and industrial water supply (Administrative Rules of Montana (ARM) 17.30.611). Due to the municipal watershed status of the West Fork Rock Creek, all waters within this drainage are classified as A-1.

The Montana Surface Water Quality Standards require that land management activities must not generate pollutants in excess of those that are naturally occurring, regardless of the stream's classification. Under ARM 17.30.623 (2) (f) "No increases are allowed above naturally occurring concentrations of sediment, settleable solids, oils, or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife." Naturally occurring is defined in ARM 17.30.602 (19) as: "the water quality condition resulting from runoff or percolation, over which man has no control, or from developed lands where all reasonable land, soil and water conservation practices have been applied". Reasonable land, soil and water conservation practices are similar to Best Management Practices (BMPs). BMPs are considered reasonable only if beneficial uses are fully supported. BMPs are further discussed under the section Soil and Water Conservation Practices.

Water quality standards for A-1 waters (West Fork Rock Creek) are slightly more restrictive than B-1 waters because of the municipal watershed status. Those standards relative to travel planning include

coliform and turbidity levels. For A-1 waters, the geometric mean number of organisms in the coliform group must not exceed 50 per 100 milliliters if resulting from domestic sewage, whereas B-1 standards allow 200 per 100 milliliters when the daily maximum water temperature is greater than 60° F and up to 400 per 100 milliliters for less than 10 percent of samples over 30 days. Additionally, turbidity standards for A-1 waters do not allow for any increase above naturally occurring levels, whereas for B-1 waters an increase of up to five nephelometric units is allowed.

Riparian and stream conditions are assessed by MTDEQ to determine the level of beneficial uses support. Streams that do not fully support their uses do not fully meet water quality standards. The status of water quality assessment and Total Maximum Daily Load (TMDL) development of streams are identified in a biennial report from MTDEQ (2006). The 2006 Montana 305(b)/303(d) Water Quality Assessment Database lists eight streams within the analysis area where one or more uses are impaired and a TMDL is required (Category 5). Refer to the Table 3-21 for more detail on these streams.

The State of Montana has the authority to develop TMDLs. On streams with multiple ownership, the Forest Service cooperates with the State and other adjacent landowners in the development process. Additionally, the fact that a particular stream is listed does not preclude management activities from occurring. Montana Code Annotated (MCA) 75-5-703(10)(c), states: (10) Pending completion of a TMDL on a water body listed pursuant to 75-5-702: (c) new or expanded non-point source activities affecting a listed water body may commence and continue their activities provided those activities are conducted in accordance with reasonable land, soil, and water conservation practices.

2005 Travel Management Final Rule provides the following direction related to water quality: (b) Specific criteria for designation of trails and areas. [C]onsider effects on the following, with the objective of minimizing: (1) Damage to soil, watershed, vegetation and other forest resources. (36 CFR 212.55).

Custer National Forest Land and Resources Management Plan identifies management goals for soil, water and riparian resources under Chapter II - Forest Wide Management Direction and Chapter III – Management Area Direction. The Forest Plan goal for watershed management is to: [E]nsure that soil productivity is maintained and that water quality is maintained at a level which meets or exceeds state water quality standards (page 4). The objectives for soil and water resources are: Continue to produce water that meets State water quality standards. National Forest System lands will be managed so that the soil and watershed conditions are in a desirable condition and will remain in that condition for the foreseeable future. Soil and water quality objectives are designed to assure that these resources meet State water quality objectives and BMPs (Best Management Practices) are incorporated to assure this (page 5). The goal for riparian areas include: [M]anage for water quality, provide diverse vegetation, and protect key wildlife habitat in these areas from conflicting uses and uses and activities that adversely impact these areas will be mitigated (page 3). The objectives for riparian areas include recognition of their unique values, and management direction is to be designed to protect these key wildlife habitats and improve water quality: [T]hese areas will be managed in relation to various legally mandated requirements including, but not limited to, those associated with floodplains, wetlands, water quality, dredged and fill material, endangered species, and cultural resources (page 5). The goals for Management Area M (Riparian) are: Manage to protect from conflicting uses in order to provide healthy, self-perpetuating plant and water communities that will have optimum diversity and density of understory and overstory vegetation (page 80).

### **Chapter 3: Affected Environment and Environmental Consequences**

Soil and Water Conservation Practices (or BMPs) are the primary mechanism to comply with state and federal water quality law by minimizing water quality impacts from non-point source pollution while still allowing dispersed land management activities to occur on National Forest System land. To reach these objectives the Forest Service developed the R1/R4 Forest Service Soil and Water Conservation Practices Handbook (USDA Forest Service 1995). This handbook is not available on the Region 1 internet website, but is available from the project file. A revised handbook is anticipated from the Washington Office in 2008.

Practices specific to travel management include: 11.01 - Determination of Cumulative Watershed Effects, 11.09 - Management by Closure to Use, 12.10 - Management of Off-Road Vehicle Use, 12.11 - Protection of Water Quality Within Developed and Dispersed Recreation Areas, 12.12 - Location of Pack and Riding Stock Facilities in Wilderness, Primitive, and Backcountry Areas, 15.01 - General Guidelines for Transportation Planning, 15.02 - General Guidelines for the Location and Design of Roads and Trails, 15.03 - Road and Trail Erosion Control Plan, 15.21 - Maintenance of Roads, 15.23 - Traffic Control During Wet Periods, and 15.27 - Trail Maintenance and Rehabilitation. The effectiveness of these BMPs and other road maintenance and construction BMPs can be found in Logan (2001), Seyedbagheri (1996), and USDA-FS (2002).

#### ***Introduction - Water Quality***

Both natural events and human activities have the potential to impact soil, water and riparian resources across both forest and range land. Significant natural events include wildfire and floods, while the most significant human activities include mining, livestock grazing, roads/trails, floodplain development, timber harvest and recreation. The degree of impact depends upon the soil and hydrologic characteristics of the watershed and how sensitive and resilient they are to these disturbances. Soil and hydrologic characteristics vary extensively across the landscape and are dictated by local landform, geologic material and climate.

#### ***Natural Characteristics and Processes***

Watersheds, undisturbed by human influences, are not static systems. Deep snow packs and heavy spring rains can cause substantial flooding, landslides and instream erosion. Wildfire, wind, or insect and disease mortality can drastically alter the vegetative composition of a watershed. Depending on the extent of mortality and rate of stand decomposition, impacts to stream systems can also be substantial. Beneficial uses, including fisheries habitat, can be negatively affected by these natural events. However, watersheds left undisturbed after natural events, can and do recover rapidly, and ultimately provide conditions that fully support all beneficial uses within a relatively short period of time. These natural disturbances occur infrequently, which allows for significant and generally rapid recovery of hydrologic and erosional processes prior to the next major disturbance event. This results in pulse effects to water resources, which are moderate to high in magnitude, but low in frequency. Within the current climatic regime and prior to significant human influence, stream systems have developed under pulse type disturbances.

#### ***Geology and Landform***

Geologic parent material and landform varies considerably across the District. Landtype associations are a useful tool to describe this variability and help identify potential erosion hazards associated with management activities and impacts to water quality. They are also incorporated into the route risk analysis described under the section Human Influences. Erosion hazards on the District are summarized in the following table. For a detailed description of parent material and landform categories, refer to the Soils section of this analysis.

**Table 3-19. Characteristics of Erosion Hazard Categories and Landtype Associations<sup>13</sup>**

Water Quality Hazard Category	Geologic Parent Material / Landform	Landtype Association ID	Acres*
Low	Alluvium/valley bottom	10, 12	138,470
	Carbonates/steep glaciated mountain slopes	43	
	Carbonates/mountain slopes and ridges	66 <sup>14</sup>	
	Sandstone and shale/mountain slopes and ridges	68	
	Gneiss and schist/frost-shattered mountain ridges	77	
Moderate	Sandstone and shale/high relief mountain slopes	36	272,101
	Carbonates/high relief mountain slopes	37	
	Gneiss and schist/steep glaciated mountain slopes	39	
	Gneiss and schist/glaciated mountain slopes	57	
	Gneiss and schist/mountain slopes and ridges	63	
High	Sandstone and shale/breaks	25	45, 258
	Carbonates/breaks	27	
	Volcanics/glaciated mountain slopes	54	
	Carbonates/mountain slopes and ridges	66 <sup>15</sup>	
	Mixed geology/mass wasted slopes	90	

**Erosion and Sediment**

Erosion is a natural process of geologic decomposition that occurs in all watersheds. The rate at which it occurs is a function of soil and stream characteristics, precipitation and flow regimes, and vegetative cover. There are three basic types of erosion; 1) detachment and routing of individual soil particles from the land surface; 2) mass wasting such as landslides and slumps; and 3) detachment and mobilization of stream channel banks or bottom material, i.e., instream erosion. All of these processes produce “sediment,” and all stream systems transport sediment. Sediment is a loosely used term that can refer to a wide range of channel substrate particle sizes, i.e., silt, sand, gravel, cobble, boulder, etc. The larger particle sizes are generally produced through instream erosion or mass wasting and are commonly referred to as bedload. The finer particles that are suspended in flowing water can be produced through all of the erosion processes mentioned above.

Geology and landforms within the analysis area have produced soils that are generally stable and not highly erodible when adequately vegetated. MacDonald and Stednick (2003) suggest that undisturbed forested watersheds typically have very low erosion rates because of high infiltration rates and limited surface runoff. Erosion rates have been estimated at less than 0.1 tons per acre per year for most forested areas in the interior western U.S. (Patric et al. 1984). Stednick (2000) summarized research concerning timber management in the Northern Rockies which also suggests that erosion rates for undisturbed forested landscapes (control watersheds, no harvest/roads) are very low (0 - 0.09 t/ac/yr). Therefore, in the absence of wildfire, hillslope surface erosion within undisturbed areas across the District is considered to be nearly non-existent. The exception to this occurs on steep, high energy (south facing) landforms composed of fine textured material. Due to dry site conditions and steep slopes, vegetation can be sparse. Episodic precipitation events that saturate these soils can result in landslides (mass wasting) that release substantial amounts of sediment to streams. However, at the broad scale, instream erosion is considered the dominant erosion process across the District.

<sup>13</sup> \*Landtype associations were not mapped for areas below the National Forest boundary and portions of the A-B Wilderness. Unmapped acreage within the Forest boundary is approximately 152,000 acres.

<sup>14</sup> SW Pryors

<sup>15</sup> N, NE, SE Pryors

***Precipitation and Flow Regimes***

Elevations across the Beartooth unit range from under 5000 to over 12,000 feet, while those on the Pryors unit range from under 5000 to just under 9000. Based on a 30 year period of record, the average annual precipitation associated with these elevations range from 20 to 70 inches on the Beartooth unit. Average annual precipitation on the Pryor unit is from 12 to 26 inches (MTNRIS 2005). Although the majority of the precipitation falls as snow, a significant portion falls as spring rain in May and June.

Streamflow regimes also vary across the District in relation to these precipitation regimes and geologic/landform features. All watersheds on the Beartooth Unit that encompass high elevations and large areas produce substantial perennial flows, in contrast to lower elevation smaller watersheds that are generally intermittent, ephemeral or short spring flow systems. Due to limestone parent material and landform, flow regimes for most drainages in the Pryor Unit are also intermittent, ephemeral or short spring flow systems, except for Sage, Crooked and Dry Head watersheds which produce perennials flows.

Many of the mainstem reaches have experienced significant flood events in the recent past. Analysis of discharge records for Rock Creek near Red Lodge (USGS gage 06209500) indicates that over a 54-year period (1932 to 1986) the 1957 flood was the highest, with an instantaneous peak flow of 3,110 cubic feet per second (cfs). Floods of lower magnitude occurred in 1952 (2,590 cfs). Discharge records on the Stillwater River near Absarokee (USGS gage 06205000) indicates that over a 71-year period (1935 to 2006) the 1967 flood was the highest, with an instantaneous peak flow of 12,000 cubic feet per second. Floods of lower magnitude also occurred in 1948 (10,600 cfs), 1970 (10,300 cfs), 1974 (11,600 cfs) and 1975 (11,300 cfs) (USGS 2008). This information suggests that the floods of the past century have contributed substantially to the current conditions along many stream reaches. These infrequent, high magnitude flood events result from a combination of natural characteristics and conditions; namely deep winter snow pack, cool spring temperatures and heavy spring rain events. These conditions are not unique to the District and the climatic conditions leading up to these infrequent events and the resulting flood stage cannot be mitigated. Except for potential localized influences on snow packs and melting rates in small headwater streams from harvest and prescribed burn activities, the frequency and magnitude of these large events, at the watershed scale, are outside of human control.

Historically, beaver played a significant role throughout the project area through the development of extensive dam/pond networks. Beaver populations have been reduced relative to historic levels. Although temporary, beaver dams and ponds are an important component of riparian systems. They help to trap and store both sediment and water. A reduction in beaver populations over the years has likely resulted in lower water tables and lower late season streamflows along small, low elevation streams.

Vegetative composition is largely defined by climate and soils, but natural agents including fire and insects or disease can drastically alter the vegetative cover. Within the last three decades, timber stands have been affected by fire, insect/disease or wind on over 120,000 acres across the District and concentrated in the following watersheds: Bad Canyon, Trout Creek, Middle East Rosebud, and headwater tributaries to the Stillwater River. Wildfire events have likely resulted in substantial increases in surface erosion although sediment deliveries to perennial streams have not been quantified.

### ***Human Influences***

Humans have influenced watersheds and water quality for centuries. Prior to European settlement, Native Americans used fire to manipulate vegetation which influenced hydrologic processes at the local scale. As European settlement occurred, so did uncontrolled beaver harvest, timber harvest and forage harvest through livestock grazing. All of these activities had long term substantial impacts to watershed characteristics and hydrologic processes, some of which are still present today.

Currently, many activities influence water quality and natural channel processes including mining, livestock grazing, floodplain development, timber harvest, recreation and transportation systems. Some of these activities are constant or occur on an annual basis, e.g., transportation systems or livestock grazing. The effects from these types of activities are considered chronic. Although chronic effects are generally low to moderate in magnitude, they occur with moderate to high frequency. In contrast to pulse effects discussed previously, chronic effects may not allow for significant recovery of the soil and water resource over time.

### **Mining**

Historical mining was limited to a few small areas across the District. The Grove Creek area along the southeast flanks of the Beartooth Unit was explored for gold through small, hand dug adits. No production ever occurred. These workings have healed over and are not influencing water resources. Limited chromite extraction occurred along the Hellroaring Plateau and on the plateau east of the Beartooth Highway. These workings have also healed over and are not influencing water resources. Larger scale uranium exploration and production occurred in the Pryor Unit and downslope on BLM administered land. These workings are still evident on the landscape. Although exposed tailings are high in radioactivity and are considered a health risks from exposure, they are not likely to affect water resources because they are 2-3 miles from the nearest perennial stream. Adits and tailings on BLM administered land have been rehabilitated and those on NFS land are planned for rehabilitation in the near future.

The Stillwater mining complex is the largest ongoing mining operation on the District. Fortunately the geologic characteristics of this complex do not produce acid rock mine drainage. Nitrates are the pollutant of concern, a product of underground blasting operations. Numerous best management practices and active reduction methods are in place, per state and federal regulations, to extract and minimize nitrates levels that may reach surface or groundwater resources. Similarly, sediment is a by-product of this operation and numerous best management practices are also in place to minimize sediment loads to the Stillwater River.

### **Livestock Grazing**

Livestock grazing has occurred on the District since the late 1800s. Livestock numbers have decreased over the years; in some allotments quite substantially. Currently there are 24 allotments providing 13,225 AUMs on 54,000 acres of suitable range. Recent range analyses on the Beartooth unit have identified issues concerning livestock grazing impacts to riparian systems and water quality. In general, livestock grazing can impact riparian systems through overuse of streamside vegetation and destabilization of streambanks. Water quality impacts can occur by increasing levels of fine sediment, increasing water temperature or changing flow regimes. The 2006 Meyers Creek Range Analysis EA proposed changes in range management to address the issues and implementation of those proposals are in progress. Range management planning across the remainder of the District is ongoing.

**Floodplain Development**

Residential developments in floodplains have the potential to affect natural floodplain processes by reducing the ability of floodwaters to access their historic floodplain. These developments include building structures, elevated driveways, bank rip-rap and stream crossing structures. When floodwaters are more confined to the main channel, streamflow velocities generally increase, which results in more damage to streambanks and human structures downstream. The cumulative effect on floodplain processes from all structures within a given valley bottom can be substantial. Floodplain development within the Forest boundary occurs in lower Rock Creek, lower West Fork Rock Creek and lower Stillwater River.

**Timber Harvest and Prescribed Fire**

Timber harvest over the last three decades is limited to small areas across the District totaling 1471 acres. The majority of the harvest has occurred in the Pryors unit (N.F. Sage Creek and Upper Crooked Creek watersheds). Prescribed fire over the last two decades encompasses 7098 acres and is concentrated in Bad Canyon, Line Creek, Limestone Creek, Crooked Creek, Lower W.F. Rock Creek and Middle Stillwater River watersheds. On a watershed basis, neither harvest nor prescribed burn activities are substantial enough to be detrimental to water resources. Both of these activities have helped to reduce fuel loads and potential for future catastrophic wildfires.

**Dispersed Recreation**

Dispersed recreation (dispersed camping and off-road vehicle use) across the District has steadily increased over the years resulting in localized soil compaction, erosion and accelerated sediment delivery to stream systems. Areas of concentrated camping immediately adjacent to streams have also destabilized streambanks and channels from camper created access paths. Concerns over human sanitation practices and the potential for spreading disease through soil or water contact is also an issue. These activities continue to expand into new areas each year thereby continually increasing the risk of impact to water resources.

Areas that have the most concentrated dispersed use include Rock Creek (along RD 2421), West Fork Rock Creek and spurs along the lower Benbow area. Refer to Appendix E for observations and recommendations on spur routes to individual dispersed sites with impacts to water quality.

**Transportation Systems**

General Influences on Water Resources: Roads modify natural drainage networks and accelerate erosion processes. These changes can alter physical processes in streams, leading to changes in streamflow regimes, sediment transport and storage, channel bank and bed configurations, substrate composition, and stability of slopes adjacent to streams (Furniss et al. 1991). Numerous studies have identified unpaved roads as a major source of sediment in streams (Elliot 2000). Sudgen and Woods (2007) measured 20 unsurfaced road plots in western Montana and found average annual sediment yields to be 5.4 Mg/ha/yr (14.7 tons/ac/yr). In relation to other transportation systems (motorized/non-motorized trails), roads open to full size vehicles pose the greatest risk of impact to water resources due to 1) largest tread width, 2) largest weight, size and force of vehicle, and 3) generally higher use levels.

Motorized two-track trails can also negatively affect streams. Meadows (2007) suggests that ATV trails are high-runoff, high-sediment producing strips on low-runoff, low-sediment producing landscapes. For six study sites across six states, he found that sediment concentrations generally tended to increase with increasing disturbance levels. Although runoff did not appear to increase for

the Montana site, sediment increased by approximately 625%, compared to the undisturbed, pre-traffic forest floor.

Motorized and non-motorized single track trails can also negatively affect streams, but the degree of affect is determined by the mode of travel. Deluca et al. (1998) found a substantial increase in sediment supply from horse traffic when compared to foot or llama traffic. Wilson and Seney (1994) documented similar conclusions concerning horse traffic. They also suggest that two-wheeled cycle traffic (motor/bi-cycle) results in less sediment than either horse or foot traffic, although the actual data appears to suggest foot traffic produces the least sediment. These two studies documented opposite results concerning sediment production on wet trails. Wilson and Seney (1994) documented increased sediment production on wetted trails, whereas Deluca et al. (1998) found no increase. Cole (1991) found, in a study of three trails in the Selway-Bitterroot Wilderness of Montana, that although most individual trail segments experienced change, there was no net erosion over an 11 year period.

Unplanned (user created) routes have the potential to be the most detrimental to water quality because of improper location of the route in relation to adjacent streams. Incorporating adequate BMPs into the design, construction and maintenance phases of all routes can minimize negative effects to the greatest extent feasible and still provide a long-term transportation network.

*Route Risk Analysis:* Roads and trails were evaluated for their potential to impact water quality or natural channel processes. Impacts to water quality on the District generally occur from concentrated road surface flows routed directly to streams at crossing locations (bridges or fords), or indirectly at cross-drain locations without adequate filter capacity. Impacts to natural channel processes generally occur through floodplain alteration, i.e., roads within floodplains that straighten stream channels or restrict natural channel meandering.

Due to the large number and miles of routes, GIS analysis using existing spatial data was the only practical method to accomplish this evaluation. Information was obtained concerning three basic road/stream interaction variables: stream crossings, routes adjacent to streams and routes by erosion hazard category. These three basic variables were further refined to obtain the following route attributes: 1) Crossings: number of crossings of perennial streams, and number of crossings of intermittent streams; 2) Adjacency: miles of route within 100 feet of perennial streams, miles of route within 100 feet of intermittent streams, and miles of route beyond 100 feet of either intermittent or perennial streams; and 3) Erosion Hazard: miles of route within low hazard landtypes, miles of route within moderate hazard landtypes, and miles of route within high hazard landtypes. Refer to Table 3-19, Characteristics of Erosion Hazard Categories and Landtype Associations under the section Natural Characteristics and Processes. Since past maintenance of roads and trails has not correlated well with road maintenance level or trail class, this variable was considered not useful for refining route risks to water quality.

Attribute values related to perennial streams and high hazard landtypes were weighed higher than those for intermittent streams or moderate hazard landtypes. Attribute values for routes beyond 100 feet of streams and low hazard landtypes were weighed the lowest. Values for these attributes were summed by individual route to obtain a total route value. Final route risk ratings were then adjusted based on 1) field evaluations and 2) professional judgment concerning water and sediment transport potential to perennial streams. Routes were then grouped into three qualitative categories based on the distribution of route risk values across the District. There were 642 individual routes evaluated, totaling 714 miles. The distribution of these routes across the three risk levels are provided in

### Chapter 3: Affected Environment and Environmental Consequences

Table 3-20. Attribute values and total values for individual routes are available from the project file.

This total route value is a relative index of potential water quality impact, or route risk to water quality and is useful for summarizing conditions and effects across a broad landscape and multiple alternatives. It is not intended to predict or provide an absolute level of impact, and should not be used to develop route specific planning without field verification. Although models are available that attempt to determine absolute impacts in terms of sediment production or sediment delivery to streams, applying these models at the District scale would yield results that are either simple to obtain but with very high degrees of error, or extremely difficult to obtain with moderate to low degrees of error.

**Table 3-20. Route Risk Summary**

	<b>Low</b>	<b>Moderate</b>	<b>High</b>	<b>Total</b>
Miles of Routes	296	379	39	714
Number of Routes	533	89	20	642

The route risk analysis is a surrogate for effects to streamside wetlands (riparian areas). Routes or portions of routes that lie within 100 feet of perennial or intermittent streams are variables in the analysis that increases the route risk index. Routes with these characteristics generally fall into the moderate or high risk category, although not all moderate and high risk routes contain substantial streamside wetlands. Isolated wetlands are a much more difficult resource to access transportation system impacts, especially on a large scale. Field reviewed routes were the means to identify these impacts and only one isolated wetland was found, although it could also be linked to the very upper end of the headwaters of Crooked Creek. Route 2097C is an alternate route to the Sage Creek Guard Station and crosses a wetland area with seeps.

#### *Route and Site Field Review*

Over 80 miles of routes were reviewed on the ground for observed impacts and risk of impact to water quality of perennial streams. Of these miles, approximately 77 percent have no observed impacts, whereas 23 percent do have observed impacts. About one percent of the miles are spur routes to dispersed sites with observed impacts. A narrative of field observations and recommendations for all routes reviewed is available from the project file. Observation and recommendations for routes with observed impacts, or high risk of impact, to water quality can be found in Appendix E – Opportunities.

#### *Watershed Scale (Cumulative) Influences*

As mentioned previously, riparian and stream conditions are assessed by the MTDEQ to determine the level of beneficial use support. Impaired streams with known pollutant related sources require a TMDL (Category 4A and 5 streams). Category 4A streams have all necessary TMDLs in place, while category 5 streams still need TMDLs developed. Impaired streams with no known pollutant related sources do not require a TMDL (Category 4C streams). Category 1 streams fully support all beneficial uses, while category 3 streams have not had all beneficial uses assessed. This assessment provides the best information on current stream conditions below the Forest boundary. A summary of streams identified on the 2006 303(d) List are provided in Table 3-21.

With two exceptions, impaired uses for category 5 streams include aquatic life and cold water fisheries, but the impairment is only partial. The exceptions are Bad Canyon with only primary contact as the impaired use and Bear Creek where the impaired uses are not supported. Probable

causes for aquatic life and fisheries impairment vary from alteration of streamside vegetation to nitrate/nitrites, sedimentation, solids, fish barriers and alteration of flow regimes. Probable sources are identified as livestock grazing, irrigated crop production, hydro structures and interbasin water transfers, abandoned mines and natural sources. In some cases sources are unknown at this time. The other impaired use for some of the streams is primary contact- recreation.

Routes were also evaluated at the 6 HUC (hydrologic unit code) watershed scale (10,000-40,000 acre) similar to the individual route risk evaluation discussed previously. All routes, regardless of ownership were included and weighted according to their interaction with intermittent and perennial streams. Non-motorized wilderness trail routes are considered a lower risk due to narrow tread width, low compaction travel means and relatively light use levels. Since landtype association information was not available below forest, it was not part of this watershed scale evaluation.

A summary of route information by watershed is provided in Table 3-22. Other known activities within individual watersheds are also included in an attempt to qualify other potential sources of impact to water resources. Watersheds considered to be a high risk for cumulative effects to water resources are identified based on 1) the cumulative route risk, 2) other known past, present and foreseeable activities, and 3) TMDL listed streams.

**Table 3-21. Summary of Streams on the 2006 Montana 303(d) List Within or Immediately Adjacent to the Project Area**

Stream/6HUC ID/TMDL category	Probable Impaired Use <sup>16</sup>	Probable Cause of Impairment	Probable Source of Impairment	Location
<b>TMDL Category 4A and 5 Streams (TMDLs Required)</b>				
Bad Canyon Creek 100700050502, Cat 5	Primary Contact - Recreation(P)	Chlorophyll-a	Rangeland Grazing	Headwaters to mouth.
Bear Creek 100700060608 Category 5	Aquatic Life Support (N) Cold Water Fishery - Trout (N) Primary Contact - Recreation(N)	Alteration in stream-side or littoral vegetative covers, Chlorophyll-a, High Flow Regime, Nitrate/Nitrite, Phosphorous, Sedimentation/Siltation	Loss of Riparian Habitat, Rangeland Grazing, Irrigated Crop Production, Transfer of Water from an Outside Watershed, Impacts from Abandoned Mine Lands.	Headwaters to mouth. Mostly below Forest.
Butcher Creek 100700050405 Category 5	Aquatic Life Support (P) Cold Water Fishery - Trout (P) Primary Contact - Recreation(P)	Chlorophyll-a, Phosphorous, Sedimentation/Siltation, Fish-Passage Barrier, Solids	Sources Unknown, Hydrostructure Impacts on Fish Passage, Natural sources.	Headwaters to Hwy 78. Mostly below Forest.
Castle Creek part of 100700050202 Category 5	Aquatic Life Support (P) Cold Water Fishery - Trout (P) Primary Contact - Recreation(N)	Chlorophyll-a, Nitrate/Nitrite	Livestock (Grazing or Feeding Operations), Sources Unknown, Upstream Source.	Headwaters to WF Stillwater confluence.
Fishtail Creek 100700050401, Cat 5	Aquatic Life Support (P) Cold Water Fishery - Trout (P)	Iron, Lead	Sources Unknown	Headwaters to mouth.
Lodgepole Creek part of 100700050202 Category 5	Aquatic Life Support (P) Cold Water Fishery - Trout (P) Primary Contact - Recreation(N)	Chlorophyll-a, Nitrate/Nitrite	Rangeland Grazing, Irrigated Crop Production, Sources Unknown.	Headwaters to mouth. Mostly below Forest.
West Rosebud Creek 100700050404/06 Category 5	Aquatic Life Support (P) Cold Water Fishery - Trout (P)	Benthic-Macroinvertebrate Bioassessments (Streams)	Source Unknown	Headwaters to mouth.
Willow Creek 100700061005 Category 5	Aquatic Life Support (P) Cold Water Fishery - Trout (P) All other uses not assessed	Low flow alterations, Sedimentation/siltation	Irrigated Crop Production	Headwaters to mouth. Mostly below Forest.
Stillwater River 100700050101/02/05 Category 4A TMDL developed	Aquatic Life Support (P) Cold Water Fishery - Trout (P) Drinking Water (N) Primary Contact-Recreation (na)	Copper, Iron, Manganese, pH, Sedimentation/Siltation	Acid Mine Drainage, Mine Tailings, Natural Sources, Highway/road/bridge runoff (non-construction related), Impacts from Abandoned Mine Lands	Headwaters to Flood Creek.
Stillwater River 100700050204 Category 4A TMDL developed	Aquatic Life Support (P) Cold Water Fishery - Trout (P) Drinking Water (N)	Cadmium, Chromium, Copper, Cyanide, Mercury, Nickel, Nitrate/Nitrite	Hardrock mining discharges, Natural Sources, Sources unknown, Impacts from Abandoned Mine Lands (inactive)	West Fork to mouth. Below Forest boundary.

<sup>16</sup> N = Not supporting, P = partial support, na= not assessed

**Table 3-21. Summary of Streams on the 2006 Montana 303(d) List Within or Immediately Adjacent to the Project Area**

Stream/6HUC ID/TMDL category	Probable Impaired Use <sup>16</sup>	Probable Cause of Impairment	Probable Source of Impairment	Location
<b>TMDL Category 1, 3 and 4C Streams (TMDLs Not Currently Required)</b>				
Crooked Creek 100800100501/02 Category 4C	Aquatic Life Support (P) Cold Water Fishery - Trout (P) All other uses not assessed	Physical Substrate Habitat Alterations	Agriculture	Headwaters to Wyoming border.
East Rosebud Creek 100700050301/02 Category 1	All uses fully supported	na	na	Wilderness boundary to Morris Cr.
Nye Creek part of 100700050204 Category 3	Insufficient data to assess any use	na	na	Headwaters to mouth.
Red Lodge Creek 100700061003 Category 4C	Aquatic Life Support (P) Cold Water Fishery - Trout (P)	Alteration in stream-side or littoral vegetative covers	Grazing in riparian or shoreline zones, Crop Production (crop land or dry land)	West Fork to Cooney Reservoir. Below Forest boundary.
West Red Lodge Ck 100700061001 Category 1	All uses fully supported	na	na	Headwaters to mouth. Mostly below Forest.
Rock Creek 100700060901/03 Category 1	All uses fully supported	na	na	State line to West Fork.
Rock Creek 100700060906 Category 4C	Aquatic Life Support (P) Cold Water Fishery - Trout (P) Primary Contact - Recreation(P)	Low flow alterations	Flow alterations from Water Diversions, Irrigated Crop Production	West Fork Rock Creek to Red Lodge Creek. Below Forest boundary.
Wyoming Creek part of 100700060901 Category 1	All uses fully supported	na	na	State line to mouth.

**Table 3-22. Summary of Watershed Characteristics and Watershed Scale Influences**

6th HUC Watershed	Watershed Name	Acres	% FS	Past, Present, Foreseeable Activities*	Cumulative Watershed Risk Rating	Primary Influence for Watershed Rating
100700050401	Fishtail Creek	24,113	74	D, G, R, $\Theta$	High	TMDL
100700060901	Rock Creek-Wyoming Creek	32,086	71	D, F, M, R, $\Theta$	High	Recreation, Routes
100700050501	Little Rocky Creek	12,136	66	D, G, M, R, $\varnothing$	High	All Listed Activities
100700050204	Stillwater River-Mountain View Creek	25,720	64	D, F, G, M, R, $\Theta$	High	All Listed Activities
100700050502	Bad Canyon Creek	12,245	59	F, G, R, T, $\Theta$	High	TMDL, Fire, Grazing/Agriculture, Routes
100800140401	Sage Creek-North Fork Sage Creek	31,025	56	D, F, G, R, T, $\Theta$	High	Floodplain Development, Grazing/Agriculture, Routes
100700050504	Trout Creek	16,873	35	D, F, G, R, $\bullet$	High	Routes
100700050405	Butcher Creek	25,747	11	D, G, R, $\Theta$	High	Grazing/Agriculture, TMDL, Routes
100700061005	Willow Creek-Clarks Fork Yellowstone	32,362	8	D, G, R, $\bullet$	High	TMDL, Floodplain Development, Routes
100700050303	Lower East Rosebud Creek	19,653	7	D, G, $\varnothing$	High	Floodplain Development, Grazing/Agriculture
100700060608	Bear Creek-Clarks Fork Yellowstone River	28,441	3	D, G, M, R, $\Theta$	High	TMDL, Floodplain Development, Mining, Routes
100700060906	Rock Creek-Stanley Draw	37,344	1	D, G, R, $\bullet$	High	Floodplain Development, Routes
100800100501	Crooked Creek-Commissary Creek	13,739	100	F, G, M, R, T, $\varnothing$	Mod	All Listed Activities
100700050101	Stillwater River Headwaters-Upper	23,500	100	M, R, $\varnothing$	Mod	Mining
100700060905	Lower West Fork Rock Creek	22,567	97	D, R, T, $\bullet$	Mod	Grazing/Agriculture, Routes
100700060903	Rock Creek-Snow Creek	26,122	90	D, G, R, $\Theta$	Mod	Floodplain Development, Routes
100700050404	Lower West Rosebud Creek	29,020	88	G, R, T, $\varnothing$	Mod	Grazing/Agriculture
100700050302	Middle East Rosebud Creek	37,209	86	D, F, G, R, $\varnothing$	Mod	Floodplain Development
100700050202	Limestone Creek	31,726	86	D, F, G, R, T, $\bullet$	Mod	TMDL, Grazing/Agriculture, Routes
100700061001	West Red Lodge Creek	30,089	53	D, G, R, $\Theta$	Mod	TMDL, Routes
100800100502	Crooked Creek-Lost Water Creek	21,618	37	D, F, G, M, R, $\varnothing$	Mod	All Listed Activities
100700050403	Fiddler Creek	18,030	36	D, G, $\Theta$	Mod	All Listed Activities
100700061002	Upper Red Lodge Creek	21,693	18	D, G, $\Theta$	Mod	All Listed Activities
100700060904	Upper West Fork Rock Creek	21,136	100	R, $\varnothing$	Low	NA
100700060902	Lake Fork	24,205	100	R, $\varnothing$	Low	NA

**Table 3-22. Summary of Watershed Characteristics and Watershed Scale Influences**

6th HUC Watershed	Watershed Name	Acres	% FS	Past, Present, Foreseeable Activities*	Cumulative Watershed Risk Rating	Primary Influence for Watershed Rating
100700050201	Upper West Fork Stillwater River	28,675	100	F, M,R, ϐ	Low	NA
100700050103	Wounded Man Creek	17,573	100	R, ϐ	Low	NA
100700050301	Upper East Rosebud Creek	35,592	100	R, ϐ	Low	NA
100700050402	Upper West Rosebud Creek	30,502	100	R, ϐ	Low	NA
100700050105	Stillwater River Headwaters-Woodbine Creek	40,510	100	R, ϐ	Low	NA
100700050104	Flood Creek	14,383	100	R, ϐ	Low	NA
100700050102	Stillwater River Headwaters-Lower	18,571	100	R, ϐ	Low	NA
100700050203	Lower West Fork Stillwater River	14,772	83	D, G, M, R, T, ϐ	Low	NA
100800140405	Bear Creek-Sage Creek	22,124	54	G, R, ϐ	Low	NA
100800100801	Upper Dry Head Creek	22,737	41	D, G, R, Θ	Low	NA
100700060511	Line Creek	24,881	35	D, G, R, ●	Low	NA
100800140403	Sage Creek-Inferno Canyon	22,211	26	D, G, R, ϐ	Low	NA
100800140404	Sage Creek-Piney Creek	38,861	19	D, G, M, R, Θ	Low	NA
100700060607	Grove Creek	16,700	18	G, R, Θ	Low	NA
100700050503	Middle Stillwater River-Magpie Creek	11,806	16	D, F, G, ϐ	Low	NA
100700060601	Clarks Fork Yellowstone River-Dilworth Creek	39,543	7	D, G, R, Θ	Low	NA
100800100504	Big Coulee	20,370	6	G, M, R, ϐ	Low	NA
100800100503	Crooked Creek-Gypsum Creek	15,649	6	F, G, M, R, ϐ	Low	NA
100800140402	Sage Creek-Section House Draw	37,096	4	D, G, R, Θ	Low	NA
100800140502	Dry Creek-Shoshone River	37,343	2	G, M, R, Θ	Low	NA

\*Watershed: Past, Present, And Foreseeable Activities

Refer to Table 3-1 for a list of reasonable foreseeable activities within the analysis area.

- D - Development/ Floodplain
- F - Wild Fire/ Prescribed Fire
- G - Grazing/Agriculture
- M - Mining
- R - Recreation/ Camping
- T - Timber Harvest

TMDL – Total Maximum Daily Load (Refer to Table 3-21)

NA – Not Applicable

- – High Route Risk
- Θ – Moderate Route Risk
- ϐ – Low Route Risk

**3.3.1.2 Environmental Consequences – Water Quality**

*Effects Common to All Action Alternatives - Water Quality*

**Direct Effects**

Relative to transportation systems, only the installation, reconstruction or removal of stream crossing structures result in direct effects to water quality. Since there are no actions proposed to actively change specific stream crossings under this analysis, there are no direct effects to evaluate.

**Indirect Effects**

Indirect effects occur at a later time or distance from the proposed action. For example, a system route with a proposed seasonal restriction would potentially result in less traffic during spring wet periods which would potentially result in less sediment delivery to streams. However, this potential effect would occur at a later time than the implementation of the seasonal restriction and the effect to water quality would be some distance downslope from the identified route.

Only moderate or high risk routes with proposed actions are evaluated for indirect effects. Existing system routes that are designated without further actions, or non-system routes not converted to system routes, are not considered actions under this analysis. However, these routes are incorporated into the cumulative effects analysis below. Proposed actions for individual moderate and high risk routes under this analysis include designating non-system routes, not designating existing system routes, designating system roads for administrative use only, converting system roads to trails, applying a season of use, or changing the mode of travel.

The only action that would tend to increase risk for moderate and high risk routes is designating non-system roads or trails for public motorized use. This action adds additional route miles to the landscape for the long-term, thereby maintaining the risk of indirect and cumulative effects to water resources. Except for conversion of roads to trails and some changes in mode of travel, all other actions would tend to decrease risk for moderate and high risk routes. Converting system roads to administrative use reduces traffic and allows revegetation of the road surface to occur, both of which reduce erosion. Not designating non-system routes potentially reduces route miles on the landscape in the future, thereby reducing potential erosion. Applying seasonal use periods, especially those related to periods when roads are wet, will reduce surface erosion, rutting and maintenance needs (refer to Appendix F). Changing the mode of travel by converting motorized trails to non-motorized, restricting non-motorized trails to foot only, or restricting bicycles from non-motorized trails are actions that potentially reduce erosion and are likely to reduce the cumulative effect of sediment delivery to streams, thereby improving water quality and aquatic habitat. Changing modes of travel for other reasons, e.g., from motorized vehicle to highway legal vehicle are not considered actions that substantially change risk. Although converting roads to trails potentially reduces tread width and vehicle weight/compaction, thereby potentially increasing revegetation and reducing erosion, the fact that vehicle size and maintenance is unlikely to change substantially on these routes suggests that this action will result in no substantial change in risk to water quality.

Through the route risk analysis, 83 percent of the total numbers of routes (41 percent of the total miles) were determined to have a low potential to cause impacts to water resources. These low risk routes generally are 1) very short, 2) do not cross perennial streams, and 3) not located within 100 feet of perennial streams. They are also mainly located on low or moderate hazard landtypes. Some of these low risk routes have associated actions under this analysis and therefore the indirect effects of

these actions have a low potential for causing impact to water resources. These routes are therefore not included in the indirect effects for moderate and high risk routes. However, cumulative impacts could occur from a concentration of low risk routes within a single watershed, so low risk routes are included in the watershed scale analysis for cumulative effects.

As mentioned previously, 18 miles, or 23 percent of the 80 miles, of field reviewed routes have observed impacts, or high risk of impact to water quality in perennial streams. Proposed actions that decrease risks to water resources for any of these 18 miles of routes is the first step towards mitigating or eliminating water quality impacts. Future actions will be required in terms of maintenance, reconstruction or obliteration in order to fully address water quality impacts and comply with state and federal water quality regulations. Observations and recommendations for these routes can be found in Appendix E –Opportunities.

### *Effects by Alternative - Water Quality*

#### **Alternative A - Indirect Effects**

This alternative proposes to add 5.8 miles of moderate and high risk non-system routes. Field observations indicate that ten of these routes contribute to water quality impacts and the addition of these routes will not reduce risks to water resources. Future actions that involve maintenance, reconstruction or obliteration will be necessary to address the impacts.

This alternative proposes actions on 8.5 route miles that should reduce risks to water resources. Actions involve converting system routes to administrative use, not designating system routes and specifying seasonal use periods. No changes in mode of travel that would reduce risks on moderate and high risk routes. Field observations indicate that four of these routes contribute to water quality impacts. The proposed actions will be the first steps to address these impacts, but future actions that involve maintenance, reconstruction or obliteration will likely be necessary to fully mitigate or eliminate the impacts.

Dispersed Vehicle Camping under this alternative would be designated within 300 feet of all system routes. Localized impacts to water resources have been documented in some high use areas across the District. Under this alternative, all sites would be available for use, although future actions that involve maintenance, reconstruction or obliteration would be necessary to address those sites with impacts. Additionally, this alternative allows unmanaged expansion of dispersed camping to continue thereby increasing the risk for additional impacts to develop in the future.

#### **Alternative B - Indirect Effects**

This alternative adds 4.2 miles of moderate and high risk non-system routes. Field observations indicate that three of these routes contribute to water quality impacts and the addition of these routes will not reduce risks to water resources. Future actions that involve maintenance, reconstruction or obliteration will be necessary to address the impacts.

This alternative proposes actions on 54.6 route miles that should reduce risks to water resources. Actions involve converting system routes to administrative use, not designating system routes, specifying seasonal use periods and changing the mode of travel. Field observations indicate that eight of these routes contribute to water quality impacts. The proposed actions will be the first steps to address these impacts, but future actions that involve maintenance, reconstruction or obliteration will likely be necessary to fully mitigate or eliminate the impacts.

### **Chapter 3: Affected Environment and Environmental Consequences**

Dispersed Vehicle Camping under this alternative would be designated within 300 feet of all system routes, except along route 2421 (Rock Creek) and in some cases along 2071 (West Fork Rock Creek) where the road is within 300 feet of streams. No dispersed sites would be allowed within 100 feet of the West Fork or its tributaries. Localized impacts to water resources have been documented in some high use areas across the District. Under this alternative, eight sites along Rock Creek would not be designated and therefore impacts would diminish over time through non-use or active rehabilitation. Additionally, this alternative attempts to manage future expansion of dispersed camping that is occurring which will minimize risks for additional impacts to develop in the future.

#### **Alternative C - Indirect Effects**

This alternative proposes to add 4.0 miles of moderate and high risk non-system routes. Field observations indicate that one of these routes contributes to water quality impacts and the addition of these routes will not reduce risks to water resources. Future actions that involve maintenance, reconstruction or obliteration will be necessary to address the impacts.

This alternative proposes actions on 52.6 route miles that should reduce risks to water resources. Actions involve converting system routes to administrative use, not designating system routes, specifying seasonal use periods and changing the mode of travel. Field observations indicate that five of these routes contribute to water quality impacts. The proposed actions will be the first steps to address these impacts, but future actions that involve maintenance, reconstruction or obliteration will likely be necessary to fully mitigate or eliminate the impacts.

Dispersed Vehicle Camping under this alternative would not be designated but would be allowed within 50 feet of all system routes. However, many dispersed sites on non-system routes would be closed because more non-system routes will not be designated under this alternative. Localized impacts to water resources have been documented at some sites and future actions that involve maintenance, reconstruction or obliteration would be necessary to address the impacts, depending on the level of use. This alternative would also help manage the expansion of dispersed camping that is occurring which should help minimize risks for additional impacts to develop in the future.

#### **Alternative B Modified - Indirect Effects**

This alternative adds 4.1 miles of moderate and high risk non-system routes, although 1.3 miles would only be open for administrative use. Field observations indicate that two of these routes contribute to water quality impacts and the addition of these routes will not reduce risks to water resources. Future actions that involve maintenance, reconstruction or obliteration will be necessary to address the impacts. Routes 21407 and 21415 are proposed for addition, but only after water quality impacts are mitigated. Route 21407 requires rehabilitation of a dispersed site at the end of the route, and route 21407 requires reconstruction of a stream crossing on East Fork West Red Lodge Creek.

This alternative proposes actions on 43.4 route miles that should reduce risks to water resources. Actions involve converting system routes to administrative use, not designating system routes, specifying seasonal use periods and changing the mode of travel. Field observations indicate that eight of these routes contribute to water quality impacts. The proposed actions will be the first steps to address these impacts, but future actions that involve maintenance, reconstruction or obliteration will likely be necessary to fully mitigate or eliminate the impacts.

Dispersed Vehicle Camping under this alternative would be designated within 300 feet of all system routes, except along route 2421 (Rock Creek) and in some cases along 2071 (West Fork Rock Creek) where the road is within 300 feet of streams. No dispersed sites would be allowed within 100 feet of the West Fork or its tributaries. Localized impacts to water resources have been documented in some high use areas across the District. Under this alternative, eight sites along Rock Creek would not be designated and therefore impacts would diminish over time through non-use or active rehabilitation. Additionally, this alternative attempts to manage future expansion of dispersed camping that is occurring which will minimize risks for additional impacts to develop in the future.

**No Action Alternative**

This alternative designates the most moderate and high risk system routes, without any additional actions to reduce risks to water resources. Field observations indicate that 16 of these routes contribute to water quality impacts. Future actions that involve maintenance, reconstruction or obliteration will be necessary to address the impacts.

Moderate and high risk non-system routes for which there are no proposed actions, and are not designated, is also the greatest under this alternative – 11.0 miles. Field observations indicate that nine of these routes contribute to water quality impacts. Not designating these routes would be the first step toward reducing impacts, but future actions that involve reconstruction or obliteration will be necessary to fully mitigate or eliminate the impacts in order to comply with state and federal water quality regulations.

Routes with observed impacts or risks to water resources are identified in Appendix E – Opportunities.

Dispersed Vehicle Camping under this alternative would be designated within 300 feet of all system routes. Localized impacts to water resources have been documented in some high use areas across the District. Under this alternative, all sites would be available for use, although future actions that involve maintenance, reconstruction or obliteration would be necessary to address those sites with impacts. Additionally, this alternative allows unmanaged expansion of dispersed camping to continue thereby increasing the risk for additional impacts to develop in the future.

**Comparison of Indirect Effects for Action Alternatives - Water Quality**

Indirect Effects for Moderate and High Risk Routes with Actions: The various actions proposed for moderate and high risk routes are summarized in the following table. Again, this discussion only refers to those routes that were determined to have a moderate or high risk of impacting water resources. Low risk routes are not likely to impact water resources and are not included in the mileage summaries below. They are however, accounted for under the cumulative effects discussion, as are routes with no proposed actions.

**Table 3-23. Summary of Actions for Moderate / High Risk Routes**

Action	Alternative			
	A	B	B Modified	C
Add (designate non-system routes) miles <b>Increases Risk</b>	5.8	4.2	4.1 <sup>1</sup>	4.0
Convert and Vehicle (Not Included Below) Miles <b>No Change to Risk</b>	28.6	12.4	22.1	6.5

**Table 3-23. Summary of Actions for Moderate / High Risk Routes**

Action	Alternative			
	A	B	B Modified	C
Administrative (Convert System Road To Administrative Use Only) Miles <b>Decreases Risk</b>	5.6	9.1	11.1	12.6
Do Not Designated (Do Not Designate System Routes) Miles <b>Decreases Risk</b>	0.7	6.3	5.8	8.8
Season (allow use during specified season) miles Decreases Risk	2.1	32.0	26.0	23.3
Vehicle (restrict mode of travel <sup>2</sup> ) miles <b>Decreases Risk</b>	0.0	7.2	0.5	7.2
Moderate/High Risk Routes with Action – <b>Total Miles that Reduce Risk</b>	8.5	54.6	43.3	51.9
Total Miles – All Actions	42.9	71.3	69.5	62.4

<sup>1</sup> 1.3 miles of the 4.1 miles would be restricted to admin use only.

<sup>2</sup> Changes in mode of travel that can reduce risks to water resources include restricting pack/saddle use to foot only and restricting motorized and mechanized use to pack/saddle and foot only. Other changes in mode of travel are not expected to change risks.

NOTE: Due to rounding of individual action miles, the sum of all individual miles may be different than the total miles displayed by up to +/- 0.2 miles.

Of the actions that affect risk, actions that are most different across the action alternatives are 1) converting system roads to administrative use only, 2) not designating system routes, 3) restricting use to specified seasons, and 4) changing the mode of travel. Alternative B specifies seasonal use on the most route miles and also proposes actions on the most route miles to reduce route risk. Alternative C converts the most system roads to administrative use only and does not designate the most system routes. Both alternatives B and C change the mode of travel on the most route miles. All of these actions are likely to reduce potential impacts to water resources from moderate and high risk routes. However, as previously discussed, these actions are the first steps toward reducing impacts on routes with observed water quality impacts. Future actions that involve maintenance, reconstruction or obliteration will be necessary to fully mitigate or eliminate the impacts in order to comply with state and federal water quality regulations. Observations and recommendations for these routes can be found in Appendix E – Opportunities.

**Cumulative Effects - Water Quality**

Effects for Moderate and High Risk Routes Without Proposed Actions

All alternatives include moderate and high risk routes without proposed actions. Actions to reduce the risk of impacting water resources will not occur on these routes, and existing impacts and risks are expected to continue into the foreseeable future until road or trail maintenance occurs. The following table summarizes miles of moderate and high risk routes without actions.

**Table 3-24. Summary of Moderate / High Risk Route Miles without Proposed Actions<sup>17</sup>**

Designation Status	Alternative				
	A	B	B Modified	C	No Action
NF System Road (designated)	133.9	122.1	112.4	135.3	171.0
NF System Trail (designated)	234.8	216.8	228.1	212.3	234.8

<sup>17</sup> Due to rounding of individual status miles, the sum of all individual miles may be different than the total miles displayed by up to +/- 0.2 miles.

Designation Status	Alternative				
	A	B	B Modified	C	No Action
Undetermined/Non-System Trail (not designated)	5.0	6.5	6.6	6.7	10.7
Moderate/High Risk Routes without Actions Subtotal Miles	373.7	345.4	347.1	354.4	416.5
All Moderate/ High Risk Routes (includes routes with actions from indirect effects) Total Miles	416.5	416.7	416.7	416.8	416.5

**Action Alternatives**

These alternatives designate varying levels of moderate and high risk system routes, without any additional actions to reduce risks to water resources, but all are substantially less than the No Action Alternative. Some of these routes are known to contribute to water quality impacts. Future actions that involve maintenance, reconstruction or obliteration will be necessary to address the impacts.

Moderate and high risk non-system routes for which there are no proposed actions, and are not designated, cover 5.0 to 7.0 miles. Some of these routes are known to contribute to water quality impacts. Not designating these routes would be the first step toward reducing impacts, but future actions that involve reconstruction or obliteration will be necessary to fully mitigate or eliminate the impacts in order to comply with state and federal water quality regulations.

Routes with observed impacts or risks to water resources are identified in Appendix E – Opportunities.

**No Action Alternative**

See discussion of the no action alternative under the previous section.

***Effects Common to All Alternatives at the Watersheds Scale***

Sediment modeling was not incorporated into the effects analysis for water quality for many reasons. First of all, natural erosion rates specific to the Custer National Forest have not been developed and extrapolating rates from other Forests would only increase errors associated with the model results. Additionally, except for wildfire, road construction and harvest of green timber stands, surface erosion rates have not been developed for other frequent activities on the forest. Therefore, from a cumulative effects standpoint, existing sediment models are not adequate to quantify to a single cumulative value, the effects of all the diverse activities in individual drainages including wildfire/prescribed fire, mining, dispersed camping, off-highway vehicle use, grazing, floodplain development, timber harvest, and transportation networks. A combination of individual models could prove useful, but a large amount of additional data (on-ground and spatial) would be necessary to obtain valid results. The only way to address these various activities cumulatively for this travel management analysis is to address each activity individually and then qualify, in general terms, the cumulative effects between specific activities where appropriate. Existing activities are discussed previously under the section – **Affected Environment – Water Quality**.

Finally, existing models can have very high errors associated with their results. Elliot (2000) indicates that, at best, any predicted runoff or erosion value, by any model, will be within plus or minus 50 percent of the true value. The high degree of error associated with cumulative effects models make it difficult, if not impossible, to compare results between alternatives because confidence intervals

### **Chapter 3: Affected Environment and Environmental Consequences**

overlap. Professional judgment and ultimately management decisions, based on modeling results with this degree of error are not appropriate.

At the watershed scale, the proposed actions are not likely to be substantial enough to cause measurable changes in water quality, quantity or channel processes under any action alternative. Although the information indicates that total beneficial action miles for moderate and high risk routes are a relatively large percentage of the total miles in some watersheds (for example Limestone Creek), these routes will still be on the landscape with the associated risks (crossings, within 100', etc). Additionally, watersheds with high risk have other activities with higher levels of impact that are likely to negate measurable benefits related to most of the proposed actions. However, from purely a risk standpoint, the proposed actions should help to reduce risks to water resources in the following moderate and high risk watersheds: Limestone Creek, North Fork Sage Creek, Crooked Creek- Commissary, Crooked Creek – Lost Water, Stillwater River- Mountain View, Lower WF Rock Creek, and West Red Lodge Creek.

This same rationale applies to those watersheds where the proposed actions are associated with low risk routes. Low risk routes account for less than half the total route miles, and proposed actions associated with low risk routes are more evenly distributed across the watersheds. Watersheds with the most substantial amount of actions associated with low risk routes include all but three watersheds on the Pryor unit, and three watersheds on the Beartooth unit. Because low risk routes are located further from perennial and intermittent streams and generally do not cross these streams, their ability to influence water quality is very limited at the watersheds scale. Again, from purely a risk standpoint, these proposed actions should help to reduce risks to water resources in the following high risk watersheds: North Fork Sage Creek, Crooked Creek- Commissary, Crooked Creek- Lost Water, and Crooked Creek- Piney.

Natural disturbance events will continue to influence hydrologic and erosional processes across all watersheds. Given the current vegetative conditions and associated fuel accumulations in some watersheds, there is potential for wildfires to occur that may be outside the range of conditions (intensity and duration) that have occurred over the last few hundred years. Depending on the intensity and area burned, accelerated soil erosion is likely, particularly where hydrophobic soils may be formed. Significant channel adjustments could be expected in these watersheds, especially during years of average or higher precipitation/runoff conditions. Stream systems will however stabilize as vegetative recovery occurs during post-fire years.

Past and present timber harvest activities and prescribed fire will continue to be a minimal influence on water resources as described under the affected environment. However, other human influences including transportation systems, grazing, recreation, mining and floodplain development are likely to continue to cause chronic effects to water resources in the future. These activities are qualified by watershed in the following table.

**Table 3-25. Summary of Cumulative Effects at the Watershed Scale for Moderate / High Risk Routes**

6th HUC Watershed #	Watershed Name	Acres	% FS	Total Route Miles	Past, Present, Foreseeable Activities*	Cumulative Watershed Risk Rating	Actions That Reduce Risks on Mod/High Risk Routes (miles)				Actions That Increase Risks on Mod/High Risk Routes (miles)			
							Alt A	Alt B	Alt B mod	Alt C	Alt A	Alt B	Alt B mod	Alt C
100700060902	Lake Fork	24,205	100	17	R, ▯	Low	–	10.7	–	10.7	–	–	–	–
100800100501	Crooked Creek-Commissary Creek	13,739	100	49	F, G, M, R, T, ▯	Mod	–	8.8	8.8	8.8	–	–	–	–
100700050202	Limestone Creek	31,726	86	61	D, F, G, R, T, ●	Mod	2.3	8.4	8.5	8.4	0.9	0.9	0.9	0.8
100800140401	Sage Creek-North Fork Sage Creek	31,025	56	86	D, F, G, R, T, ⊖	High	1.7	7.8	7.8	9.1	0.1	–	–	–
100800100801	Upper Dry Head Creek	22,737	41	49	D, G, R, ⊖	Low	–	5.7	5.7	4.2	–	–	–	–
100700050204	Stillwater River-Mountain View Creek	25,720	64	69	D, F, G, M, R, ⊖	High	3.5	3.5	3.5	3.5	–	–	–	–
100700061001	West Red Lodge Creek	30,089	53	54	D, G, R, ⊖	Mod	–	2.9	2.5	0.4	1.7	1.3	1.3	1.3
100700060905	Lower West Fork Rock Creek	22,567	97	40	D, R, T, ●	Mod	–	1.9	1.9	1.9	<0.1	–	–	–
100700060511	Line Creek	24,881	35	51	D, G, R, ●	Low	–	1.7	1.7	1.7	–	–	–	–
100800100502	Crooked Creek-Lost Water Creek	21,618	37	30	D, F, G, M, R, ▯	Mod	–	1.4	1.4	1.4	–	–	–	–
100700050302	Middle East Rosebud Creek	37,209	86	53	D, F, G, R, ▯	Mod	–	0.5	–	0.5	–	–	–	–
100700050501	Little Rocky Creek	12,136	66	46	D, G, M, R, ▯	High	–	–	–	–	0.1	<0.1	–	–
100700050403	Fiddler Creek	18,030	36	32	D, G, ⊖	Mod	0.5	0.5	0.5	0.5	–	–	–	–
100700050401	Fishtail Creek	24,113	74	36	D, G, R, ⊖	High	0.3	0.3	0.3	0.3	–	–	–	–
100700050404	Lower West Rosebud Creek	29,020	88	21	G, R, T, ▯	Mod	0.2	0.2	0.2	0.20	0.6	–	–	–
100700061005	Willow Creek-Clarks Fork Yellowstone	32,362	8	107	D, G, R, ●	High	<0.1	<0.1	<0.1	<0.1	–	–	–	–
100700060901	Rock Creek-Wyoming Creek	32,086	71	55	D, F, M, R, ⊖	High	–	–	–	–	2.0	2.0	2.0	2.0
100700060904	Upper West Fork Rock Creek	21,136	100	27	R, ▯	Low	–	–	–	–	0.3	–	–	–
100700050101	Stillwater River Headwaters-Upper	23,500	100	22	M, R, ▯	Mod	–	–	–	–	–	–	–	–

**Table 3-25. Summary of Cumulative Effects at the Watershed Scale for Moderate / High Risk Routes**

6th HUC Watershed #	Watershed Name	Acres	% FS	Total Route Miles	Past, Present, Foreseeable Activities*	Cumulative Watershed Risk Rating	Actions That Reduce Risks on Mod/High Risk Routes (miles)				Actions That Increase Risks on Mod/High Risk Routes (miles)			
							Alt A	Alt B	Alt B mod	Alt C	Alt A	Alt B	Alt B mod	Alt C
100700050102	Stillwater River Headwaters-Lower	18,571	100	9	R, ρ	Low	-	-	-	-	-	-	-	-
100700050103	Wounded Man Creek	17,573	100	17	R, ρ	Low	-	-	-	-	-	-	-	-
100700050104	Flood Creek	14,383	100	4	R, ρ	Low	-	-	-	-	-	-	-	-
100700050105	Stillwater River Headwaters-Woodbine Creek	40,510	100	14	R, ρ	Low	-	-	-	-	-	-	-	-
100700050201	Upper West Fork Stillwater River	28,675	100	20	F, M,R, ρ	Low	-	-	-	-	-	-	-	-
100700050203	Lower West Fork Stillwater River	14,772	83	28	D, G, M, R, T, ρ	Low	-	-	-	-	-	-	-	-
100700050301	Upper East Rosebud Creek	35,592	100	16	R, ρ	Low	-	-	-	-	-	-	-	-
100700050303	Lower East Rosebud Creek	19,653	7	37	D, G, ρ	High	-	-	-	-	-	-	-	-
100700050402	Upper West Rosebud Creek	30,502	100	11	R, ρ	Low	-	-	-	-	-	-	-	-
100700050405	Butcher Creek	25,747	11	61	D, G, R, Θ	High	-	-	-	-	-	-	-	-
100700050502	Bad Canyon Creek	12,245	59	16	F, G, R,T, Θ	High	-	-	-	-	-	-	-	-
100700050503	Middle Stillwater River-Magpie Creek	11,806	16	25	D, F, G, ρ	Low	-	-	-	-	-	-	-	-
100700050504	Trout Creek	16,873	35	26	D, F, G, R, ●	High	-	-	-	-	-	-	-	-
100700060601	Clarks Fork Yellowstone River-Dilworth Creek	39,543	7	110	D, G, R, Θ	Low	-	-	-	-	-	-	-	-
100700060607	Grove Creek	16,700	18	52	G, R, Θ	Low	-	-	-	-	-	-	-	-
100700060608	Bear Creek-Clarks Fork Yellowstone River	28,441	3	54	D, G, M, R, Θ	High	-	-	-	-	-	-	-	-
100700060903	Rock Creek-Snow Creek	26,122	90	49	D, G, R, Θ	Mod	-	-	-	-	-	-	-	-
100700060906	Rock Creek-Stanley Draw	37,344	1	163	D, G, R, ●	High	-	-	-	-	-	-	-	-

**Table 3-25. Summary of Cumulative Effects at the Watershed Scale for Moderate / High Risk Routes**

6th HUC Watershed #	Watershed Name	Acres	% FS	Total Route Miles	Past, Present, Foreseeable Activities*	Cumulative Watershed Risk Rating	Actions That Reduce Risks on Mod/High Risk Routes (miles)				Actions That Increase Risks on Mod/High Risk Routes (miles)			
							Alt A	Alt B	Alt B mod	Alt C	Alt A	Alt B	Alt B mod	Alt C
100700061002	Upper Red Lodge Creek	21,693	18	29	D, G, Θ	Mod	-	-	-	-	-	-	-	-
100800100503	Crooked Creek-Gypsum Creek	15,649	6	40	F, G, M, R, ϐ	Low	-	-	-	-	-	-	-	-
100800100504	Big Coulee	20,370	6	22	G, M, R, ϐ	Low	-	-	-	-	-	-	-	-
100800140402	Sage Creek-Section House Draw	37,096	4	94	D, G, R, Θ	Low	-	-	-	-	-	-	-	-
100800140403	Sage Creek-Inferno Canyon	22,211	26	51	D, G, R, ϐ	Low	-	-	-	-	-	-	-	-
100800140404	Sage Creek-Piney Creek	38,861	19	70	D, G, M, R, Θ	Low	-	-	-	-	-	-	-	-
100800140405	Bear Creek-Sage Creek	22,124	54	46	G, R, ϐ	Low	-	-	-	-	-	-	-	-
100800140502	Dry Creek-Shoshone River	37,343	2	54	G, M, R, Θ	Low	-	-	-	-	-	-	-	-

\*Watershed: Past, Present, And Foreseeable Activities

Refer to Table 3-1 for a list of reasonable foreseeable activities within the analysis area.

- D - Development/ Floodplain
- F - Wild Fire/ Prescribed Fire
- G - Grazing/Agriculture
- M - Mining
- R - Recreation/ Camping
- T - Timber Harvest

TMDL – Total Maximum Daily Load (Refer to Table 3-21)

NA – Not Applicable

- – High Route Risk
- Θ – Moderate Route Risk
- ϐ – Low Route Risk

**3.3.1.3 Conclusion - Water Quality**

Currently, some routes have documented water quality impacts and therefore, may not comply with Forest Plan direction or state and federal water quality regulations. Compliance relative to the Decision to be made for this FEIS, only pertains to those routes with a proposed action. These routes have actions proposed which are the first steps toward addressing water quality impacts. Additional activities, outside of this proposal, that would further reduce water quality impacts are identified in Appendix E - Opportunities. From a NEPA standpoint, routes with no proposed actions that have known water quality impacts are not a compliance issue relative to the Decision to be made, because this project is not the cause of those impacts (i.e. they are existing impacts). However, water quality impacts should still be addressed through measures outside this process and recommended actions for these routes are also identified in Appendix E - Opportunities. Full compliance with Forest Plan direction and state and federal water quality regulations under all alternatives would occur in the future as these actions or rehabilitation measures are implemented.

The following table summarizes effects relative to reduced or increased risks from proposed actions by alternative.

**Table 3.26. Water Quality Effects Summary**

Indicator	Alt. A	Alt. B	Alt. C	No Action	Alt. B Modified
Miles of actions that reduce risks on moderate and high risk routes within the project area	8.5	54.6	51.9	0	43.3
Miles of actions that increase risks on moderate and high risk routes within the project area	5.8	4.2	4.0	0	4.1

Alternatives B, C, and B Modified have between 43 and 55 miles of routes with actions that reduce risks on moderate and high risk routes with the project area. Alternative A has approximately 9 miles of routes with actions that reduce risks on moderate and high risk routes. Alternatives B, C, and B Modified have about 4 miles of routes with actions that increase risks on moderate and high risk routes with the project area. Alternative A has approximately 6 miles of routes with actions that increase risks on moderate and high risk routes.

**3.3.1.4 Affected Environment – Fisheries and Aquatics**

***Overview of Changes from the Draft to the Final EIS***

- With respect to fisheries and aquatics, few changes occurred between the Draft and Final EIS. However, among these few changes were some that provide significant additional protections for aquatic habitats and biota. The scope of the Beartooth Travel Management EIS is limited to the designation of system roads and trails. Additional protection measures that potentially improve aquatic habitat and species are included in Alternative B Modified. Additionally, Appendix E includes opportunities to reduce impacts to water quality, aquatic habitat and biota, where there are: 1) site specific impacts from existing routes not associated with the proposed action, and 2) proposed actions with potential to improve conditions but do not eliminate impacts. However, maintenance and decommissioning proposals will require future and separate NEPA decisions

- Specific changes to the fisheries and aquatics assessment were a result of public comments that requested clarification or change in the analysis. Narratives and tables under the Environmental Consequences section were expanded to meet these requests. Changes to the Route Risk Analysis are discussed in the Water Quality Section.

***Applicable Laws, Regulations, and Policy***

The *Clean Water Act* requires States to identify existing water bodies that do not meet water quality standards, and develop plans to meet them. *Montana Water Quality Law*, as directed by the Clean Water Act, developed a water quality classification system, developed water quality standards to be applied to various water classes, and identified water bodies that do not meet standards.

The Montana Department of Environmental Quality has classified most of the streams within the analysis area as B-1 streams under the Montana Water Classification system, with the exception of the West Fork Rock Creek drainage, which is classified as an A-1 stream. The Administrative Rules of Montana (ARM 17.30.623) require that waters classified as A-1 or B-1 are suitable for the “*growth and propagation of salmonid fishes and associated aquatic life.*” Other beneficial uses associated with these classifications include; drinking, culinary and food processing purposes, after conventional treatment; bathing, swimming, and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl, and furbearers; and agricultural and industrial water supply (Administrative Rules of Montana (ARM) 16.20.607/618).

The *1995 Presidential Executive Order 12962* directs Federal agencies to “improve the quantity, function, sustainable productivity, and distribution of aquatic resources for increased recreational fishing opportunity by evaluating the effects of federally funded, permitted, or authorized actions on aquatic systems and recreational fisheries and document those effects relative to the purpose of this order.”

As part of the *National Environmental Policy Act* (NEPA) decision-making process, proposed Forest Service programs or activities are to be reviewed to determine how an action will affect any sensitive species (FSM 2670.32). The goal of the analysis should be to avoid or minimize impacts to sensitive species. Two sensitive amphibian and one sensitive fish species are present in the project area. These include the Northern leopard frog *Rana pipiens*, Western toad (Boreal toad) *Bufo boreas*, and Yellowstone cutthroat trout *Oncorhynchus clarki bouvieri*.

The *1987 Custer National Forest Land and Resources Management Plan* directs that management activities should enhance habitat quality and diversity, and to provide fish-oriented recreation opportunities. Most of the critical habitat areas have been incorporated into management areas that maintain or improve these key habitats. Fisheries management is considered in all management areas and the level of habitat management is projected to increase over time. The Custer National Forest has established a list of management indicator species and habitat indicators based upon the National Forest Management Act (NFMA) and planning regulations criteria. Native-strain Yellowstone cutthroat trout are designated in the Custer National Forest Plan as an aquatic Habitat Indicator Species for cold water habitats. Other cold water trout species considered in this analysis include brook trout *Salvelinus fontinalis*, brown trout *Salmo trutta*, and rainbow trout *Oncorhynchus mykiss*.

The Custer National Forest is a cooperator in the *Memorandum of Understanding and Conservation Agreement for Westslope Cutthroat Trout and Yellowstone Cutthroat Trout within Montana* (MOUCA) (MFWP 2007). The management goals of the MOUCA are to: 1) ensure the long-term,

### **Chapter 3: Affected Environment and Environmental Consequences**

self-sustaining persistence of each subspecies distributed across their historical ranges, 2) maintain the genetic integrity and diversity of non-introgressed populations, as well as the diversity of life histories, represented by remaining cutthroat trout populations, and 3) protect the ecological, recreational, and economic values associated with each subspecies (MFWP 2007). The MOUCA specifies that maintaining, securing, or enhancing populations entail: 1) protecting, conserving, or restoring habitat (including watersheds that currently support or have a high potential to support cutthroat trout), 2) reestablishing connectivity among isolated populations, and 3) applying regulations that protect cutthroat trout (MFWP 2007).

#### ***Fish and Amphibian Distribution***

The Beartooth Travel Management Plan project area spans across 45 individual watersheds (6<sup>th</sup> level hydrologic unit code). Custer National Forest system lands comprise about one-half of the total acreage of the 45 watersheds (630,500 acres of 1,241,800 acres total). The project area encompasses portions of the Stillwater and West Fork Stillwater Rivers, Rock, West Fork Rock, East Rosebud, West Rosebud, and West Red Lodge Creeks of the Absaroka Beartooth Mountain Range, and Crooked, Sage, and Piney creeks of the Pryor Mountain Range. These rivers, creeks, lakes and their tributaries support several internationally known trout fisheries, as well as populations of important endemic fish and amphibians.

Yellowstone cutthroat trout are the only sensitive fish species present in the project area. Other trout species considered in this analysis include brook, brown, and rainbow trout. Potential sensitive amphibian species include the Northern leopard frog and Western toad (Boreal toad).

#### ***Yellowstone Cutthroat Trout (*Oncorhynchus clarki bouvieri*)***

Yellowstone cutthroat trout, a member of the family Salmonidae, were first described by C. E. Bendire in 1882 based on a sample from a population in Waha Lake, Idaho; however, many explorers had made earlier observations of this subspecies in Montana and Wyoming (Behnke 1992; May 1996; as reported in Young 2001). Yellowstone cutthroat trout (YCT) historically occupied approximately 17,397 miles of habitat in the western U.S., including, from east to west, the upper portions of the Yellowstone River drainage within Montana and Wyoming and the upper Snake River drainage in Idaho, Wyoming, Nevada and Utah (Behnke 1992; as reported in May et al. 2003). In Montana, YCT were historically widely distributed throughout the upper Yellowstone River basin and its tributary streams, ranging as far downstream as the Tongue River (MFWP 2005).

Yellowstone cutthroat trout inhabit relatively clear, cold stream, river, and lake environments (Young 2001). Spawning typically occurs in spring and early summer, after flows have declined from their seasonal peak, in sites with suitable substrate (gravel less than 85 mm in diameter), water depth (9-30 cm), and water velocity (16-60 cm/s) (Varley and Gresswell 1988; Byorth 1990; Thurow and King 1994; as reported in Young 2001). Upon emergence, fry immediately begin feeding, typically in nearby stream margin habitats, but they may also undertake migrations to other waters (Gresswell 1995; as reported in Young 2001). Sexual maturity is generally achieved by age 3 or older. Yellowstone cutthroat trout and rainbow trout readily hybridize, producing fertile offspring; sympatric populations often form hybrid swarms (Allendorf and Leary 1988; Henderson et al. 2000; as reported in Young 2001).

Yellowstone cutthroat trout exhibit three primary life history patterns: resident, fluvial, and adfluvial (Gresswell 1995; as reported in MTFWP 2005). Resident life forms occupy home ranges entirely within relatively short reaches of streams; fluvial fish migrate from larger streams or rivers to smaller

streams to reproduce; adfluvial life history forms of YCT exhibit a similar pattern, but migrate, sometimes many kilometers, as mature adults from lakes to inlet or outlet streams to spawn (Young 2001).

Throughout their historic range, YCT trout have undergone substantial declines in distribution and abundance (Young 2001). Genetically unaltered YCT occupy about 7 to 25% of historical habitats (May et al. 2003). The distribution of stream resident YCT on the Custer National Forest (CNF) is restricted from its historic range; eleven genetically pure YCT populations currently occupying less than 30 miles of stream habitat on CNF (the following table). Few lake dwelling populations of YCT are thought to have existed in Montana historically (MFWP 2006). At present, a purported 179 lakes support pure populations in Montana (118 of these lakes reside in the Absaroka-Beartooth Wilderness Area; MFWP 2006). Most stream populations of YCT are at risk of extinction from either hybridization or demographic or stochastic influences (MFWP 2005). Genetically unaltered YCT inhabit about 73 lakes and 27 miles of stream in the project area. Nearly all of the lakes (68 of 73) lie within the Absaroka Beartooth Wilderness Area, while most stream populations exist outside the Wilderness Boundary. Watershed distribution and stream miles occupied by genetically unaltered YCT in the project area are provided in table below.

**Table 3-27. Stream populations of genetically unaltered YCT on Custer National Forest within the project area.**

Watershed (HUC 6)	Watershed Name <sup>18</sup>	Stream Miles with YCT
100700050502	Bad Canyon Creek	3.5
100700061001	West Red Lodge Creek (East Fork of West Red Lodge Creek)	1.5
100700050101	Stillwater River Headwaters-Upper (Goose Creek)	3.0
100700050105	Stillwater River Headwaters (Woodbine Creek)	2.0
100700050203	Lower West Fork Stillwater River (Iron Creek)	3.0
100700050501	Little Rocky Creek	3.0
100700050202	Limestone Creek (Picket Pin Creek)	3.25
100700060901	Rock Creek/Wyoming Creek (Wyoming Creek)	2.0
100800100501 100800100502	Crooked Creek	5.5
100800100801	Upper Dry Head Creek	1.75
100800140404	Sage Creek-Piney Creek (Piney Creek)	0.5

**Northern Leopard Frog (*Rana pipiens*)**

The Northern leopard frog historically ranged from Newfoundland and northern Alberta in the north to the Great Lakes region, the desert Southwest and the Great Basin in the south (Maxell 2000). A number of isolated populations historically existed in the Pacific Northwest and California (Stebbins 1985; as reported in Maxell 2000). In Montana they have been documented across the eastern plains and in many of the mountain valleys on both sides of the Continental Divide at elevations up to 6,700 feet (Werner et al. 2004).

The Northern leopard frog is found in, and adjacent to, permanent slow moving or standing water bodies with considerable vegetation, but may range widely into moist meadows, grassy woodlands

<sup>18</sup> Parenthesized stream name below watershed name identifies the tributary occupied by YCT if different from watershed name.

### Chapter 3: Affected Environment and Environmental Consequences

and even agricultural areas (Nussbaum et al. 1983; as reported in Maxell 2000). Adults feed on invertebrates, but may cannibalize smaller individuals. Adults overwinter on the bottom surface of permanent water bodies, under rubble in streams or in underground crevices that don't freeze. Northern leopard frogs breed from mid-March to early June (Maxell 2000). Mating occurs when males congregate in shallow water and begin calling during the day (Maxell 2000). Eggs are laid at the water surface in large, globular masses of 150 to 500 (Maxell 2000). Juveniles may move as much as 8 kilometers from their natal ponds to their adult seasonal territories (Dole 1971; as reported in Maxell 2000). Young and adult frogs often disperse into marsh and forest habitats, but are not usually found far from open water (Maxell 2000).

Over the last few decades the Northern leopard frog has undergone declines across much of the western portion of their range (Stebbins and Cohen 1995; as reported in Maxell 2000). Most Northern leopard frogs in western Montana became extinct in the 1970's or early 1980's. The only 2 population centers known to exist in western Montana are near Kalispell and Eureka (Maxell 2000). However, the northern leopard frog is still abundant and widespread in southeastern Montana and northwestern South Dakota (Reichel 1995; as reported in Hendricks and Reichel 1996). Although this species is relatively common on the Ashland District of the Custer National Forest, there have been only three recorded observations of this species within the project area. All of the sightings were recorded pre 1970 and were in the East Rosebud Creek drainage (near East Rosebud Lake). There have been no recent Northern leopard frog observations throughout the Beartooth District.

#### ***Western Toad (Boreal Toad) (Bufo boreas)***

The Western toad (*Bufo boreas*) is currently recognized as two subspecies ranging from the Rocky Mountains to the Pacific Coast and From Baja Mexico to southeast Alaska and the Yukon Territory (Stebbins 1985; as reported in Maxell 2000). They are found in a variety of habitats, including wetlands, forests, sagebrush meadows and floodplains. Western toads inhabit all types of aquatic habitats ranging from sea level to 12,000 ft in elevation (Maxell 2000). The subspecies of Western toad found in Montana is the boreal toad (*Bufo boreas boreas*).

Adult and juvenile toads are freeze intolerant and overwinter and shelter in underground caverns, or rodent burrows (Maxell 2000). Adults feed on a variety of ground dwelling invertebrates and are known to eat smaller individuals of their own species. Adults must utilize thermally buffered microhabitats during the day, and can be found under logs or in rodent burrows (Maxell 2000). Because of their narrow environmental tolerance (10-25 °C throughout the year), adults are active at night and can be found foraging for insects in warm, low-lying areas (Maxell 2000). Breeding typically occurs from May to July in shallow areas of large and small lakes, ponds, slow moving streams and backwater channels of rivers (Black 1970; Metter 1961; as reported in Maxell 2000). Tadpoles metamorphose in 40 to 70 days and can be found in dense aggregations adjacent to breeding grounds (Werner et al. 2004).

In the northern Rocky Mountains Western toads have undergone declines. Surveys in the late 1990's revealed they were absent from a number of areas they historically occupied. While they remain widespread across the landscape, they appear to be occupying only 5 –10%, or less, of the suitable habitat (Maxell 2000). Based on these findings the USFS listed the Western toad as sensitive in all of Region 1's National Forests, and initiated a regional inventory in Montana. As a result, a systematic inventory of standing water bodies in 40 randomly chosen 6<sup>th</sup> level hydrologic unit code (HUC) watersheds was completed across western Montana during the summer of 2000. Results indicated they were widespread, but extremely rare. The Western toad has been documented on the Beartooth

Plateau, at altitudes as high as 9,200 ft (Werner et al. 2004). Two Western (Boreal) toad records exist for the project area. These records include a 1970 sighting on the Red Lodge Creek Plateau and one in the upper Stillwater River drainage in 2003.

**Watershed Condition and Stream Habitat Characteristics**

Project area streams are classified B-1 for water quality beneficial uses using the state Department of Environmental Quality water quality classification system, with the exception of a municipal watershed (West Fork Rock Creek), which is classified as an A-1 stream. The Water Quality section of this document fully details the respective designations of these classifications; significant among them for this analysis is the growth and propagation of salmonid fish.

Stream channel types in the Rosgen classification system are alphanumeric classifications of streams based on geomorphologic and stream substrate characteristics (table below). The most common Custer National Forest stream channel types are Rosgen A and B, but all types are present. Streams bearing unaltered Yellowstone cutthroat trout populations on CNF are primarily Rosgen B channels, often with inclusions of A channel types in the upper most headwaters and short C channel inclusions within lower gradient reaches of the predominant B channel.

**Table 3-28. Rosgen stream channel types (Rosgen 1996)**

Channel Type <sup>19</sup>	Gradient (%)	Entrenchment	W/D Ratio	Sinuosity	Sensitivity *	Erosion Potential*	Vegetative Control <sup>20</sup> *
A	>4	High	<12	Low	Low to Extreme	Low to Extreme	Low
B	2-4	Moderate	>12	Moderate	Low to Moderate	Low to Moderate	Low to Moderate
C	<2	Low	>12	High	Low to Extreme	Low to Extreme	Moderate to Extreme
D	<4	Low	>40	None	Extreme	Extreme	Moderate
E	<2	Low	<12	High	Extreme	Moderate to High	Extreme
F	<2	High	>12	High	Low to Extreme	Moderate to Extreme	Low to Moderate
G	2-4	High	<12	Moderate	Low to Extreme	Low to Extreme	Low to High

\*In general, low values for these columns indicate large channel substrates (bedrock and boulder). Moderate to extreme values indicate smaller substrates (silt, sand, gravel, and cobble).

For the purpose of this analysis generalizations of watershed condition and stream habitat characteristics within watersheds relative to travel routes, were inferred from: 1) total route miles, 2) number of route stream crossings, 3) route miles within 100ft of streams, and 4) landtype association. Sediment delivery and riparian habitat loss are generally positively related to the aforementioned route related variables, and generally but not universally are indicative of reduced aquatic habitat capability (e.g., Furniss et al. 1991, Dunham and Rieman 1999, Forman et al. 2003). Habitat quality within

<sup>19</sup> The base channel type (A-G) is further described by a number corresponding with predominate streambed substrate within a reach (1 = bedrock, 2 = boulder, 3 = cobble, 4 = gravel, 5 = sand, 6 = silt). For example, a C4 channel is a low gradient, gravel bedded, sinuous stream that is very sensitive to disturbance, has high erosion potential and is sensitive to loss of riparian vegetation.

<sup>20</sup> Vegetative control number indicates the relative importance of riparian vegetation in maintaining streambank stability, and therefore stream channel form.

### **Chapter 3: Affected Environment and Environmental Consequences**

watersheds is variable, in part because of other land use activities and because the ultimate effects of travel routes also depend on location of those routes, geology and soils of the watershed, maintenance of the routes, and other factors (Furniss et al. 1991). A summary of cumulative watershed condition is discussed under Watershed Scale Cumulative Influences.

There is a distinction between travel route effects and the effects of various modes of travel. In most cases, the actual use, or mode of travel (motorized versus non-motorized) is inconsequential. Rather, it is the facility (road or trail) that has the potential to impact aquatic habitat and biota. In general, roads have more impacts than trails because of their wider prisms, larger cut-and-fill slopes and more extensive ditch routing systems. However, some uses have higher potential to disturb soils and increase erosion potential on both roads and trails, and therefore segregation of uses is maintained throughout the report. For example, Dale and Weaver (1974) found horses trails to be deeper than those used only by hikers. Deluca et al. (1998) found horses consistently made more sediment available for erosion than hikers or llamas. Wilson and Seney (1994) measured sediment yield from hikers, mountain bikers, motorcycles and horses and found horses produced higher sediment yields on both dry and pre-wetted trails than the other users. Facility improvements and maintenance in many cases can mitigate potential for adverse effects.

Potential effects of travel routes and various modes of travel on aquatic habitat and populations are combined under one primary aquatic issue (effects to aquatic habitat and biota). However, the issue is segregated into various components of concern. Those components are 1) Travel route impacts on stream channel form and function, including sediment delivery to streams and subsequent effects on aquatic habitat and biota; 2) Travel route impacts on riparian ecosystems; 3) Travel route impacts on habitat fragmentation; and 4) Travel route impacts on exploitation and modification of recreational and native fisheries.

#### ***Influences of Transportation Systems on Aquatic Habitat and Biota***

##### **Stream Channel Form and Function**

Travel routes may affect stream channel form and function, including sediment delivery to streams and subsequent effects on aquatic habitat and biota.

Roads and trails constructed for Forest travel disturb soils and increase the potential for erosion and sediment transport and deposition in streams (Furniss et al. 1991, Forman et al. 2003). Likewise, motorized and non-motorized uses (motorcycles, ATVs, horses, mountain bikes, hikers) can further disturb soils and increase potential for erosion and sediment delivery. Sediment concerns are generally highest when roads and trails are not sufficiently drained (Furniss et al. 1991). Water and sediment can concentrate on roads and trails during spring snowmelt runoff or periods of intense rain and be delivered to streams. With sufficient drainage, water and sediment from upland segments of trails and roads can be diverted off trails or roads, filtered through forest vegetation, and not routed to streams (Furniss et al. 1991). As such, upland segments of roads and trails can generally be designed to mitigate sediment delivery concerns. One primary concern is erosion and sediment delivery from road and trail segments near stream crossings (Furniss et al. 1991, Forman et al. 2003).

Sediment entering stream channels can affect channel shape and form, stream substrates, the structure of fish habitats and the structure and abundance of fish populations (Everest et al. 1987, Hicks et al. 1991, Waters 1995, McIntosh et al. 2000). To evaluate the effects travel routes and modes of travel have on sediment and fish habitats and populations, one must project changes in erosion and sediment

delivery against the structural framework of the channel. Streams are not similar in terms of their inherent sensitivity to changes in streamflow or sediment discharge, their inherent stability, or their ability to recover from sediment related change (Rosgen 1996, Hogan and Ward 1997). Furthermore, stream habitats described in terms of pools, riffles and spawning gravel are geomorphic entities that are selectively influenced or controlled by channel type, streamflows and sediment inputs (Rosgen 1996, Hogan and Ward 1997). Potential sediment effects to trout vary according to life-stage specific habitat requirements, habitat conditions (quality) and habitat availability (quantity) (Everest et al. 1987, Bjornn and Reiser 1991, Hicks et al. 1991, Hogan and Ward 1997). This is because different life-stages utilize different habitats. Adults typically prefer pool habitats and juveniles utilize pools, runs and some riffle habitats. Sediment effects on adult and juvenile trout can occur when sediment concentrations exceed the capacity of the channel and pools fill or riffles become more embedded. Adverse effects to young trout (egg through fry life stages) can occur when fine sediment concentrations increase in spawning gravels (Bjornn and Reiser 1991, Hicks et al. 1991, Waters 1995).

Spawning gravel is the sorted product of bed scour and redeposition from which sand and finer material has been removed and transported downstream. The maintenance of good spawning gravel requires that the stream's normal sediment supply contain relatively low amounts of fine material, and that stream-flows and gradients be sufficiently high to flush out fines (Bjornn and Reiser 1991, Waters 1995, Kondolf 2000). Travel routes that minimize the influx of fine sediments will favor the maintenance of spawning gravel. If inputs exceed the stream's sediment transport capacity, then concentrations can increase in spawning gravels and affect survival of incubating eggs and emerging fry.

Pools are the result of local scour or impoundment induced by structural controls (e.g., boulders, large woody debris) in the channel or streambank (Rosgen 1996, Hogan and Ward 1997). Pools are areas of higher velocity during peak flows, but at low flows their depth creates a depositional environment for fine sediment. Increased sediment from roads and trails can influence the amount and quality of juvenile and adult pool habitat if sediment increases are sufficient to alter channel morphology by filling in pools and increase width/depth ratios. For lower-gradient, more sensitive channel types like B4 and B4c and C type reaches with moderate sensitivity to increased sediment, excessive sediment loading can reduce maximum pool depth and residual pool volume thereby reducing the quality and availability of pool habitats important to juvenile and adult salmonids (Rosgen 1996, Hogan and Ward 1997).

#### **Riparian Ecosystems**

Forest roads and trails constructed for travel activities within riparian corridors can alter or remove riparian vegetative communities, with direct and indirect impacts on riparian and stream ecosystems (Furniss et al. 1991, Forman 2003). Riparian vegetation modification may directly remove fish security cover and reduce stream shading, resulting in increased water temperatures in summer and colder temperatures in winter. Removal of riparian vegetation may indirectly result in reduced streambank stability and sediment filtering capacity of vegetation, both of which can result in increased sediment delivery rates with effects as described above (e.g., Thornton et al. 1998). Riparian vegetation modification may also change stream channel form and function, and may modify aquatic food webs and nutrient cycles. Potential for changes in channel form and function is also related to the inherent stability of various channel types. Removal of riparian vegetation in amphibian breeding, incubating and rearing habitats may reduce its suitability for those functions and may increase vulnerability of the amphibians to predation (Maxell 2000, Forman et al. 2003).

**Habitat Fragmentation**

Roads and trails can fragment aquatic habitats where stream crossings create barriers for upstream movement of fish and amphibians (Furniss et al. 1991, Maxell 2000). This typically occurs where culverts and fords are not designed to allow for upstream fish and amphibian passage. Crossings with culverts can be barriers usually because of outfall barriers, excessive velocities, insufficient water depths, disorienting turbulent flow patterns, lack of resting pools below the barrier or a combination of these conditions. Fish and amphibians upstream of the barrier are then geographically and hence, reproductively isolated from the downstream population. Habitat fragmentation can reduce viability of fish and amphibian populations by a variety of stochastic, deterministic and genetic mechanisms (e.g., Rieman et al. 1993).

The concern of aquatic habitat fragmentation related to travel routes has been addressed through a District culvert inventory completed in 2003 that evaluated culverts to determine fish passage capabilities. Culverts where fish passage is a concern have been replaced or prioritized for replacement. Because fish passage has been addressed through the Forest-wide culvert inventory and fish passage analysis, and because impacts can be mitigated through facility design or replacement, this component of the aquatic issue is dismissed from further detailed analysis in this report.

**Exploitation of Recreational and Native Fisheries**

Travel routes that lead to popular fishing destinations may have an indirect effect on fish populations by over-exploiting fish stocks that are vulnerable to high angling pressure. Over-exploitation of fish stocks may result in population declines (e.g., Rieman and McIntyre 1993). Population declines in small fish populations may render them at higher risk of extinction (Rieman et al. 1993).

The Montana Department of Fish, Wildlife and Parks (MFWP) manage fish and wildlife populations throughout the state. Lake management plans have been developed for most high mountain lakes throughout the Custer National Forest. These plans address recruitment potential and angling pressure effects. Where natural recruitment does not meet population goals, supplemental stocking is generally prescribed. Thus, the issue is largely focused on over-exploitation of native fish populations inhabiting Forest streams. The MFWP regulates over-exploitation of recreational and native stream fisheries with special regulations that either determines catch limits or prohibit keeping of fish. For example, there is currently a catch-and-release regulation in effect for native Yellowstone trout in all streams supporting native stocks. Lake management plans and special regulations effectively mitigate the over-exploitation component of the aquatics issue. Thus, this component is dismissed from further detailed analysis.

**Assumptions**

For the purpose of this analysis, only proposed actions related to travel routes were evaluated for effects to aquatic systems under alternatives A, B, B Modified and C. Under the No Action Alternative, no direct and indirect effects could be evaluated as no route related actions are proposed. However, the No Action Alternative is indicative of the existing condition of the project area and therefore, all routes were evaluated at the watershed scale for a summary of cumulative influences to aquatic systems for this alternative.

For the cumulative influences summary and cumulative effects analysis, route layers outside of the Custer National Forest boundary, obtained for GIS analysis, were generated from the USFS Region 1 GIS (TIGER Data) transportation layer. They included all secondary, primary, and city/county roads.

System roads that are not designated or identified for administrative use would become or remain Maintenance Level (ML) 1 system roads. This is often characterized as putting a road into “storage”. The Forest Service is responsible for ensuring that, “Basic custodial maintenance is performed to keep damage to adjacent resource to an acceptable level and to perpetuate the road to facilitate future management activities. Emphasis is given to maintaining drainage facilities and runoff patterns. Planned road deterioration may occur at this level.”

Appendix E includes opportunities to reduce impacts to water quality, aquatic habitat and species where there are: 1) site specific impacts from existing routes not associated with the proposed action, and 2) proposed actions with potential to improve conditions but do not eliminate impacts. However, construction, reconstruction, maintenance and decommissioning proposals will require future and separate NEPA decisions

**Transportation Systems Analysis**

Roads and trails were evaluated for impacts to water quality or natural channel processes (Water Quality Section). This analysis evaluates the subsequent potential impacts to aquatic habitat and biota in relation to impacts to water quality and natural channel processes. An in depth review of effects of roads and trails on fish and amphibians, and their habitats is provided by Furniss et al. (1991), Maxell (2000), and Forman et al. (2003).

The potential for routes to impact water quality was evaluated based on the number of stream crossings (perennial and intermittent crossings), adjacency to streams (miles of route within 100ft from perennial and 100ft from intermittent, and beyond 100ft from all channels) and landtype erosion hazard.

Route values obtained from the Route Risk Analysis provide an index of potential water quality impact, or route risk to water quality. The route value is not intended to predict an absolute value or level of impact to water quality or aquatic systems, rather a hierarchical approach to prioritizing impact potential by category: Low, Moderate, and High Risk. The table below provides a summary of each route risk category by route miles and by the number of routes. Potential effects to fish and amphibian habitat and species related to proposed actions for moderate and high risk routes are evaluated under indirect effects by action alternative.

**Table 3-29. Route Risk Summary**

	Low	Moderate	High	Total
Miles of Routes	296	379	39	714
Number of Routes	533	89	20	642

**Watershed Scale (Cumulative) Influences**

To assess cumulative influences and cumulative effects to aquatic resources all routes were evaluated at the watershed scale (6<sup>th</sup> level, 10,000-40,000 acre) similar to the individual route risk evaluation discussed previously.

The Water Quality section in this chapter displays the 2006 303(d) list for watersheds within the cumulative effects area of the project (Table 3-21). This list provides the best current information on watershed impairment for streams below the Forest boundary. Probable causes for aquatic life and

### **Chapter 3: Affected Environment and Environmental Consequences**

fisheries impairment vary from alteration of streamside vegetation to nitrate/nitrites, sedimentation, solids, fish barriers and alteration of flow regimes. For the portions of the 303(d) listed watersheds on the CNF, Bad Canyon and Crooked Creek support Yellowstone Cutthroat trout populations, and Fishtail, Lodgepole, Red Lodge, and West Rosebud Creeks support MIS trout populations. None of the 303(d) listed watersheds harbor sensitive amphibian species on CNF.

The table below provides a summary of watershed route information for aquatic sensitive species occupied watersheds. Past, present, and reasonably foreseeable activities within individual watersheds are also included in an attempt to qualify other potential sources of impact to aquatic habitat and biota. Watersheds considered to be at risk for sensitive fish and amphibian species are identified based on: 1) high risk cumulative watershed rating, 2) other known past, present and foreseeable activities, 3) TMDL listed streams, and 4) presence of sensitive fish or amphibian populations within the watershed.

Three sensitive species occupied watersheds have a High Risk cumulative watershed risk rating (table below). However, it should be recognized that there is considerable variation in: 1) stream habitat and species composition between tributaries within watersheds, 2) stream conditions on and off Forest, 3) and condition and maintenance levels among travel routes. Little Rocky, Bad Canyon, and Crooked creeks are the only sensitive species occupied streams on CNF where habitat conditions are of concern, and impacts to these watersheds are primarily related to recent wildfires, past grazing, agricultural and mining activities, and to a lesser extent, travel routes.

**Table 3-30. Summary of Watershed Characteristics and Watershed Scale Influences for Sensitive Aquatic Species Occupied Watersheds.**

6th HUC Watershed	Watershed Name*	Acres	% FS	Past, Present, Foreseeable Activities**	Cumulative Watershed Risk Rating	Primary Influence for Watershed Rating
100700060901	Rock Creek-Wyoming Creek <sup>1</sup>	32,086	71	D, F, M, R, ⊖	High	Recreation, Routes
100700050501	Little Rocky Creek <sup>1</sup>	12,136	66	D, G, M, R, ○	High	All Listed Activities
100700050502	Bad Canyon Creek <sup>1</sup>	12,245	59	F, G, R, T, ⊖	High	TMDL, Fire, Grazing/Agriculture, Routes
100800100501	Crooked Creek-Commissary Creek <sup>1</sup>	13,739	100	F, G, M, R, T, ○	Mod	All Listed Activities
100700050101	Stillwater River Headwaters-Upper <sup>1,3</sup>	23,500	100	M, R, ○	Mod	Mining
100700050302	Middle East Rosebud Creek <sup>2</sup>	37,209	86	D, F, G, R, ○	Mod	Floodplain Development
100700050202	Limestone Creek <sup>1</sup>	31,726	86	D, F, G, R, T, ●	Mod	TMDL, Grazing/Agriculture, Routes
100700061001	West Red Lodge Creek <sup>1,3</sup>	30,089	53	D, G, R, ⊖	Mod	TMDL, Routes
100800100502	Crooked Creek-Lost Water Creek <sup>1</sup>	21,618	37	D, F, G, M, R, ○	Mod	All Listed Activities
100700050105	Stillwater River Headwaters-Woodbine Creek <sup>1</sup>	40,510	100	R, ○	Low	NA
100700050203	Lower West Fork Stillwater River <sup>1</sup>	14,772	83	D, G, M, R, T, ○	Low	NA
100800100801	Upper Dry Head Creek <sup>1</sup>	22,737	41	D, G, R, ⊖	Low	NA
100800140404	Sage Creek-Piney Creek <sup>1</sup>	38,861	19	D, G, M, R, ⊖	Low	NA

\*SENSITIVE SPECIES: <sup>1</sup> Yellowstone Cutthroat Trout, <sup>2</sup> Northern Leopard Frog, <sup>3</sup> Western (Boreal) Toad

\*\*Watershed: Past, Present, And Foreseeable Activities

Refer to Table 3-1 for a list of reasonable foreseeable activities within the analysis area.

D - Development/ Floodplain  
 F - Wild Fire/ Prescribed Fire  
 G - Grazing/Agriculture  
 M - Mining  
 R - Recreation/ Camping  
 T - Timber Harvest

TMDL – Total Maximum Daily Load (Refer to Table 3-21)

NA – Not Applicable

● – High Route Risk

⊖ – Moderate Route Risk

○ – Low Route Risk

### 3.3.1.5 Environmental Consequences – Fisheries and Aquatics

#### *Direct and Indirect Effects-Fisheries and Aquatics*

##### **Uses Dismissed from Detailed Analysis**

###### *Winter motorized and non-motorized use*

There is no literature or evidence in streams throughout the Forest that suggests winter motorized or non-motorized uses affect aquatic habitat and biota via any of the issue components. Generally, ice and snow cover over aquatic habitats provides sufficient protection from snow machines, skiers and other winter recreational activities. Therefore, winter motorized and non-motorized uses are dismissed from further analysis in this report.

###### *Motorized use in Wilderness*

Motorized uses are not allowed in designated Wilderness. Therefore, motorized uses are dismissed from detailed analysis for all Absaroka Beartooth Wilderness Area routes within the project area.

##### **Effects Common to All Alternatives**

Through the watershed route risk analysis, 83% of the total number of routes were determined to have a low potential to cause impacts to water resources and therefore, negligible to nonexistent effects to aquatic habitat and species. However, at the watershed scale, cumulative impacts could occur from a concentration of low risk routes, so low risk routes are included in the watershed scale aquatics analysis for cumulative effects.

##### **Direct Effects**

Direct effects are those resulting in the direct mortality of fish or amphibians, or the destruction of fish or amphibian habitat. Direct effects occur at the same time and place as the proposed activity. Relative to transportation systems, only the installation, reconstruction or removal of stream crossing structures, and route construction or decommissioning could result in direct effects to fish and amphibians. The proposed actions in the project area do not include any route related construction activities that would result in direct effects to aquatic habitats or biota. Therefore, no direct effects are evaluated in this analysis.

##### **Indirect Effects**

Only moderate or high risk rated routes with associated actions are evaluated for indirect effects to aquatic habitats and biota. Indirect effects occur at a later time or distance from the proposed action. Indirect effects are those resulting in changes to fish and amphibian habitat or populations as a result of changes in the aquatic environment. These effects may include altering the rate in which sediment or woody debris enters the stream channel, changes in stream bank stability due to near-bank activities, modifying temperature regimes by reducing riparian shading, and decreased embryo survival as a result of fine sediment accumulation in spawning gravels.

A summary of route related actions pertaining to moderate and high risk rated routes, and the potential for these actions to reduce or not reduce the risk of impacting aquatic systems can be found in the Water Quality Section, Effects Common to All Action Alternatives. In general terms, the only action that would tend to increase risk for moderate and high risk routes is designating non-system roads or trails for public motorized use. This action adds additional route miles to the landscape, and does not reduce the risk of indirect and cumulative effects to aquatic ecosystems.

All other proposed actions would tend to decrease risk. These actions include: 1) converting system roads to administrative use, 2) converting system roads to trails, 3) converting system roads to trails with a seasonal restriction, 4) not designating non-system routes, 5) restricting the season of use for roads or trails, 6) restricting the mode of travel for roads or trails, and 7) restricting the season of use and mode of travel for roads or trails

**Alternative A**

Alternative A proposes to add about 6 miles of moderate and high risk non-system routes. Effects of these routes on aquatic habitat and species are provided in the table below. Of these routes, #21407, #21415, #241412 and #241419 have the greatest potential to adversely impact sensitive species and their habitats.

**Table 3-31. Indirect Effects to Fish, Amphibians, and Their Habitats by Adding Moderate and High Risk Routes to the System under Alternative A.**

Watershed # and Name	Road (R) or Trail (T) & Route Risk		Route Length (miles)	Explanation and Potential Effect to Aquatic Habitat and Biota
	Moderate	High		
100700060901 Rock Creek- Wyoming Creek	T-3A	--	1.96	This route is a non-motorized, maintained, hiking trail that provides access to Shelf and Moon Lakes. No measurable negative impacts to aquatics species or habitat are anticipated as result of the trail on the landscape. Adding this route to the system would increase recreational fishing opportunity. It provides access to stocked high mountain lakes with harvestable populations of cutthroat and brook trout.
100700050202 Limestone Creek	T-83	--	0.8	This route is a non-motorized, maintained, hiking trail. Trail #83 parallels Dead Indian Creek. Dead Indian Creek flows intermittently and does not support fish. No sensitive amphibians have been documented in this drainage. This route has little to no impact to aquatic habitat or species.
100700050202 Limestone Creek	R-21407*	--	0.13	Route #21407 is a user created spur road that parallels Picket Pin Creek and leads to a dispersed camping area. The route was identified as having moderate water quality impacts due to bare soil and an access trail to and across Picket Pin Creek. Picket Pin Creek harbors genetically unaltered YCT. Adding this route has moderate to high potential for impacting aquatic habitat and sensitive species.
100700050404 Lower West Rosebud Creek	R-20723	--	0.57	This road provides Powerline access for highway vehicles. It parallels an ephemeral tributary to West Rosebud Creek for a short distance (.2 miles). This route was not observed to be a risk to water quality, fisheries, or aquatic habitat.
100700061001 West Red Lodge Creek	R-21415	--	1.25	Route #21415 provides motor vehicle access to the lower end of the East Fork of West Red Lodge Creek near the CNF/State land boundary. An isolated population of genetically unaltered YCT, intermixed with brook trout, inhabits this creek. The Western (Boreal) toad has been documented in this drainage also, but up on the Red Lodge Creek Plateau, several miles from route #21415. As this route provides motor

**Table 3-31. Indirect Effects to Fish, Amphibians, and Their Habitats by Adding Moderate and High Risk Routes to the System under Alternative A.**

Watershed # and Name	Road (R) or Trail (T) & Route Risk		Route Length (miles)	Explanation and Potential Effect to Aquatic Habitat and Biota
	Moderate	High		
				vehicle access to a sensitive species inhabited stream reach, and includes an unmaintained stream crossing, it has moderate to high potential for impacting aquatic habitat and sensitive species.
100800140401 Sage Creek-N Fork Sage Creek	R-2144D1	--	0.14	This road provides Powerline access for highway vehicles. Route #2144D1 was not observed to be a risk to aquatic habitat or species.
100700050501 Little Rocky Creek	--	R-241412*	0.09	This route includes a short road segment and a dispersed campsite. It is in close proximity to a tributary to Little Rocky Creek. Little Rocky Creek harbors genetically pure YCT. Route #241412 was identified as impacting water quality. As this route contributes sediment to the stream course it has moderate to high potential for impacting aquatic habitat and sensitive species in Little Rocky Creek.
100700050501 Little Rocky Creek	R-241419	--	0.06	This route provides access to the Benbow Mine and parallels Little Rocky Creek near its headwaters. Little Rocky Creek harbors genetically pure YCT. This route is on a steep hillside comprised of loose unconsolidated material, immediately upslope of the stream course. This route has high potential for impacting aquatic habitat and sensitive species.
100700060905 Lower West Fork Rock Creek	R-24781	--	0.04	This route provides access to a dispersed campsite on Nichols Creek. Route #2478 was identified as impaired and impacting water quality, and would likely require reconstruction to mitigate effects to water quality (#24781 is a spur off of #2478). Nichols Creek is presumably fishless and no sensitive amphibian species have been documented in this drainage. However, Nichols Creek is a tributary to the W F Rock Creek and route #2478 likely contributes sediment to this system, thereby potentially impacting aquatic habitat and species in WF Rock Creek.
100700061001 West Red Lodge Creek	--	R-21417*	0.12	Route #21417 parallels a headwater tributary to West Rosebud Creek. This route was identified as impaired and impacting water quality, and would likely require reconstruction to mitigate effects to water quality. This route has moderate to high potential to impact aquatic habitat and species in West Red Lodge Creek.
100700061001 West Red Lodge Creek	--	R-21418*	0.31	Route #21418 was identified as impaired and impacting water quality, and would likely require reconstruction to mitigate effects to water quality. Route #21418 parallels a headwater tributary to West Red Lodge Creek. This route has moderate to high potential to impact aquatic habitat and species in West Red Lodge Creek.
100700061001 West Red Lodge Creek	--	R-21419*	0.06	Route #21419 was identified as impaired and impacting water quality, and would likely require reconstruction to mitigate effects to water quality. This route is upslope and runs perpendicular to a tributary to West Red Lodge

**Table 3-31. Indirect Effects to Fish, Amphibians, and Their Habitats by Adding Moderate and High Risk Routes to the System under Alternative A.**

Watershed # and Name	Road (R) or Trail (T) & Route Risk		Route Length (miles)	Explanation and Potential Effect to Aquatic Habitat and Biota
	Moderate	High		
				Creek. This route has moderate to high potential to impact aquatic habitat and species in West Red Lodge Creek.
100700060904 Upper West Fork Rock Creek	R-20719*	--	0.21	Route #20719 is an access road to three dispersed campsites along the West Fork of Rock Creek. Drainage from these dispersed sites and observable streambank impacts at stream access points are contributing sediment. This route has moderate potential to impact aquatic habitat and species in West Fork Rock Creek.
100700060904 Upper West Fork Rock Creek	R-207111*	--	0.05	Route #207111 is a short access road to a dispersed campsite. Drainage from the user created road crosses the dispersed site and continues down a trail to the West Fork Rock Creek. This route has low to moderate potential to impact aquatic habitat and species in West Fork Rock Creek.

\*Routes that were identified through field observations as impacting aquatic resources.

Alternative A includes 15.4 miles of route related actions that reduce the potential for risk to aquatic habitat and species. These actions are anticipated to be beneficial to the aquatic environment. However, this alternative allows unmanaged expansion of dispersed camping within 300 feet of all system routes. Field observations indicate that dispersed camping has little impact to aquatic resources across the analysis area. In most drainages dispersed camping is sporadic, often well away from stream courses, is buffered by riparian vegetation, and is generally not concentrated. Nonetheless, a few areas have received concentrated dispersed camping immediately adjacent to streams. Concentrated camping areas impacting water quality/fisheries resources were identified in Rock Creek, West Fork Rock Creek and spurs along the lower Benbow area (Little Rocky Creek). Under Alternative A, dispersed camping related impacts to aquatic resources would continue in these drainages.

**Alternative B**

Alternative B proposes to add 4.5 miles of moderate and high risk non-system routes. Effects of these routes on aquatic habitat and species are provided in the table below. Of these routes, #21407, #21415, and #24142 have the greatest potential to adversely impact sensitive species and their habitats.

**Table 3-32. Indirect Effects to Fish, Amphibians, and their Habitats by Adding Moderate and High Risk Routes to the System under Alternative B**

Watershed # and Name	Road (R) or Trail (T) & Route Risk		Route Length (miles)	Explanation and Effect to Aquatic Habitat and Biota
	Moderate	High		
100700060901 Rock Creek-Wyoming Creek	T-3A	--	1.96	This route is a non-motorized, maintained, hiking trail that provides access to Shelf and Moon Lakes. No measurable negative impacts to aquatics species or habitat are anticipated as result of the trail on the landscape. Adding this route to the system would increase recreational fishing opportunity. It

**Table 3-32. Indirect Effects to Fish, Amphibians, and their Habitats by Adding Moderate and High Risk Routes to the System under Alternative B**

Watershed # and Name	Road (R) or Trail (T) & Route Risk		Route Length (miles)	Explanation and Effect to Aquatic Habitat and Biota
	Moderate	High		
				provides access to stocked high mountain lakes with harvestable populations of cutthroat and brook trout.
100700050202 Limestone Creek	T- 83	--	0.8	This route is a non-motorized, maintained, hiking trail. Trail #83 parallels Dead Indian Creek. Dead Indian Creek flows intermittently and does not support fish. No sensitive amphibians have been documented in this drainage. This route has little to no impact to aquatic habitat or species.
100700050202 Limestone Creek	R-21407*	--	0.13	Route #21407 is a user created spur road that parallels Picket Pin Creek and leads to a dispersed camping area. The route was identified as having moderate water quality impacts due to bare soil and an access trail to and across Picket Pin Creek. Picket Pin Creek harbors genetically unaltered YCT. Adding this route has moderate to high potential for impacting aquatic habitat and sensitive species.
100700061001 West Red Lodge Creek	R-21415	--	1.25	Route #21415 provides motor vehicle access to the lower end of the East Fork of West Red Lodge Creek near the CNF/State land boundary. An isolated population of genetically unaltered YCT, intermixed with brook trout, inhabits this creek. The Western (Boreal) toad has been documented in this drainage also, but up on the Red Lodge Creek Plateau, several miles from route #21415. As this route provides motor vehicle access to a sensitive species inhabited stream reach, and includes an unmaintained stream crossing, it has moderate to high potential for impacting aquatic habitat and sensitive species.
100700050501 Little Rocky Creek	--	R-241412*	0.09	This route includes a short road segment and a dispersed campsite. It is in close proximity to a tributary to Little Rocky Creek. Little Rocky Creek harbors genetically pure YCT. Route #241412 was identified as impacting water quality. As this route contributes sediment to the stream course it has moderate to high potential for impacting aquatic habitat and sensitive species in Little Rocky Creek.

\*Routes that were identified through field observations as impacting aquatic resources.

Alternative B includes 59.1 miles of route related actions with potential to reduce risks to water quality. These actions are not anticipated to result in adverse effects to aquatic species or habitats and would likely be beneficial to aquatic systems across the project area. Some of these actions include: dispersed camping within 300 feet of all system routes, but with restrictions in the Rock Creek and West Fork Rock Creek drainages (where dispersed campsite related effects to water quality and fisheries have been identified), 32 miles of seasonal restrictions on moderate and high risk routes, and converting 7.2 miles of trail from pack/saddle use to foot only or restricting motorized and mechanized use to pack/saddle and foot only.

**Alternative C**

Alternative C proposes to add 4 miles of moderate and high risk non-system routes. Effects of these routes on aquatic habitat and species are provided in the following table. Of these routes, #21415 has potential to impact a sensitive species (Yellowstone cutthroat trout) and their habitat.

**Table 3-33. Indirect Effects to Fish, Amphibians, and their Habitats by Adding Moderate and High Risk Routes to the System under Alternative C.**

Watershed # and Name	Road (R) or Trail (T) & Route Risk		Route Length (miles)	Explanation and Effect to Aquatic Habitat and Biota
	Moderate	High		
100700060901 Rock Creek-Wyoming Creek	T-3A	--	1.96	This route is a non-motorized, maintained, hiking trail that provides access to Shelf and Moon Lakes. No measurable negative impacts to aquatics species or habitat are anticipated as result of the trail on the landscape. Adding this route to the system would increase recreational fishing opportunity. It provides access to stocked high mountain lakes with harvestable populations of cutthroat and brook trout.
100700050202 Limestone Creek	T-83	--	0.8	This route is a non-motorized, maintained, hiking trail. Trail #83 parallels Dead Indian Creek. Dead Indian Creek flows intermittently and does not support fish. No sensitive amphibians have been documented in this drainage. This route has little to no impact to aquatic habitat or species.
100700061001 West Red Lodge Creek	R-21415	--	1.25	Route #21415 provides motor vehicle access to the lower end of the East Fork of West Red Lodge Creek near the CNF/State land boundary. An isolated population of genetically unaltered YCT, intermixed with brook trout, inhabits this creek. The Western (Boreal) toad has been documented in this drainage also, but up on the Red Lodge Creek Plateau, several miles from route #21415. As this route provides motor vehicle access to a sensitive species inhabited stream reach, and includes an unmaintained stream crossing, it has moderate to high potential for impacting aquatic habitat and sensitive species.

Alternative C includes 52.6 miles of route related actions that reduce the potential for risk to aquatic resources. These actions are not anticipated to result in adverse effects to aquatic species or habitats and would be considered beneficial to aquatic systems across the project area. Some of these actions include: dispersed camping within 50 feet of all system routes, 23.3 miles of seasonal restrictions on moderate and high risk routes and converting 7.2 miles of trail from pack/saddle use to foot only or restricting motorized and mechanized use to pack/saddle and foot only.

**Alternative B Modified**

Alternative B Modified proposes to add 4.1 miles of moderate and high risk non-system routes. Effects of these routes on aquatic habitat and species are provided in the following table. Of these routes, #21407 and #21415 could potentially impact sensitive species and their habitat. However, under Alternative B Modified route #21407 is proposed for addition only after water quality impacts are mitigated at the dispersed camp site at the end of the route. Also, route #21415 would be designated for administrative use only, and that use would be contingent on future maintenance of the stream crossing in the East Fork of West Red Lodge Creek.

**Table 3-34. Indirect Effects to Fish, Amphibians, and their Habitats by Adding Moderate and High Risk Routes to the System under Alternative B Modified**

Watershed # and Name	Road (R) or Trail (T) & Route Risk		Route Length (miles)	Explanation and Effect to Aquatic Habitat and Biota
	Moderate	High		
100700060901 Rock Creek-Wyoming Creek	T-3A	--	1.96	This route is a non-motorized, maintained, hiking trail that provides access to Shelf and Moon Lakes. No measurable negative impacts to aquatics species or habitat are anticipated as result of the trail on the landscape. Adding this route to the system would increase recreational fishing opportunity. It provides access to stocked high mountain lakes with harvestable populations of cutthroat and brook trout.
100700050202 Limestone Creek	T- 83	--	0.8	This route is a non-motorized, maintained, hiking trail. Trail #83 parallels Dead Indian Creek. Dead Indian Creek flows intermittently and does not support fish. No sensitive amphibians have been documented in this drainage. This route has little to no impact to aquatic habitat or species.
100700050202 Limestone Creek	R-21407* Contingent	--	0.13	Route #21407 is a user created spur road that parallels Picket Pin Creek and leads to a dispersed camping area. The route was identified as having moderate water quality impacts due to bare soil and an access trail to and across Picket Pin Creek. Picket Pin Creek harbors genetically unaltered YCT. Adding this route has moderate to high potential for impacting aquatic habitat and sensitive species.
100700061001 West Red Lodge Creek	R-21415 Admin Contingent	--	1.25	Route #21415 provides motor vehicle access to the lower end of the East Fork of West Red Lodge Creek near the CNF/State land boundary. An isolated population of genetically unaltered YCT, intermixed with brook trout, inhabits this creek. The Western (Boreal) toad has been documented in this drainage also, but up on the Red Lodge Creek Plateau, several miles from route #21415. As this route provides motor vehicle access to a sensitive species inhabited stream reach, and includes an unmaintained stream crossing, it has moderate to high potential for impacting aquatic habitat and sensitive species.

\*Routes that were identified through field observations as impacting aquatic resources.

Alternative B Modified includes 43.4 miles of route related actions that reduce the potential for risk to aquatic habitat and species. These actions are anticipated to be beneficial to the aquatic environment. Under Alternative B Modified seasonal restrictions would be implemented on 26 miles of moderate and high risk routes. Dispersed Vehicle Camping would be designated within 300 feet of all system routes, except along route #2421 (Rock Creek) and no dispersed sites would be allowed within 100 feet of West Fork Rock Creek or its tributaries. Under this alternative, eight dispersed campsite identified as impacting aquatic resources in Rock Creek would not be designated and therefore impacts would diminish over time through non-use or active rehabilitation. Additionally, this alternative attempts to manage future expansion of dispersed camping that is occurring which will minimize risks for additional impacts to develop in the future.

**No Action Alternative**

This alternative designates the most moderate and high risk system routes without any additional actions to reduce risks to aquatic resources. Field observations indicate that 16 of these routes impact aquatic resources. These routes could potentially impact sensitive fish species (Yellowstone cutthroat

trout) in Crooked, Picket Pin, Little Rocky, and West Red Lodge creeks. Table 3-30 displays sensitive aquatic species occupied watersheds in terms of size, proportion on CNF, route miles, past, present, and foreseeable activities, cumulative watershed risk rating, and miles of moderate and high risk route actions that reduce and do not reduce route risk. Of the aforementioned YCT occupied watersheds, all were categorized as having moderate or high cumulative watershed risk ratings (Table 3-30).

Dispersed vehicle camping under this alternative would be designated within 300 feet of all system routes. Continued localized impacts along Rock, West Fork Rock, and Little Rocky creeks would be allowed to continue under the No Action Alternative. Increased sediment delivery produced from these sites would likely impact aquatic habitat and localized populations of wild and sensitive trout species.

**Cumulative Effects - Fisheries and Aquatics**

**Effects Determination by Alternative**

No Federally listed threatened or endangered fish or amphibian species, designated critical habitat, fish or amphibian species proposed for Federal listing, or proposed critical habitat occur in the project area. Forest Service sensitive fish and amphibian species within the project area include Yellowstone cutthroat trout, Western (Boreal) toad and Northern Leopard frog. Table below summarizes the potential effects to aquatic species (sensitive species of species of interest) in the project area.

**Table 3-35. Determination of potential impacts to sensitive aquatic species and species of interest by alternative.**

Aquatic Species Determination <sup>21</sup>				
Alternative	Yellowstone Cutthroat Trout	Species of Interest (Wild Trout)	Western (Boreal) Toad	Northern Leopard Frog
Alternative A	MIIH	MIIH	NI	NI
Alternative B	MIIH	MIIH	NI	NI
Alternative B Modified	NI	MIIH	NI	NI
Alternative C	MIIH	MIIH	NI	NI
No Action Alternative	MIIH	MIIH	NI	NI

**Effects Common to All Action Alternatives**

Cumulative effects are defined as "the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (CFR 40 1508.7). Past, present, and reasonably foreseeable events and activities that have and will likely continue to incrementally impact aquatic species and their habitats, in the 45 watersheds (on and off CNF) of the project area, include: wildfire/prescribed fire, mining, grazing, floodplain development, timber harvest, transportation networks, and dispersed camping (Table 3.1).

<sup>21</sup> NI = No Impact; MIIH = May Impact Individuals or Habitat but will not likely contribute to a trend towards Federal listing or loss of viability to the population or species; WIFV = Likely to result in a trend to Federal listing or loss of viability; and BI = Beneficial impact.

**Table 3-36. Summary of Cumulative Effects at the Watershed Scale.**

6 <sup>th</sup> HUC Watershed #	Watershed Name*	Acres	% FS	Total Route Miles	Past, Present, Foreseeable Activities**	Cumulative Watershed Risk Rating	Actions That Reduce Risks on Mod/High Risk Routes (miles)				Actions That Increase Risks on Mod/High Risk Routes (miles)			
							Alt A	Alt B	Alt B Mod	Alt C	Alt A	Alt B	Alt B Mod	Alt C
100700060901	Rock Creek-Wyoming Cr. <sup>1</sup>	32,086	71	55	D, F, M, R, ⊖	High	–	–	–	–	2.0	2.0	2.0	2.0
100700050202	Limestone Cr. <sup>1</sup>	31,726	86	61	D, F, G, R, T, ●	Mod	2.3	8.4	8.5	8.4	0.9	0.9	0.9	0.8
100800100501	Crooked Cr.-Commissary Cr. <sup>1</sup>	13,739	100	49	F, G, M, R, T, ○	Mod	–	8.8	8.8	8.8	–	–	–	–
100700061001	West Red Lodge Cr. <sup>1,3</sup>	30,089	53	54	D, G, R, ⊖	Mod	–	2.9	2.5	0.4	1.7	1.3	1.3	1.3
100800100801	Upper Dry Head Cr. <sup>1</sup>	22,737	41	49	D, G, R, ⊖	Low	–	5.7	5.7	4.2	–	–	–	–
100700050302	Middle East Rosebud Cr. <sup>2</sup>	37,209	86	53	D, F, G, R, ○	Mod	–	0.5	–	0.5	–	–	–	–
100700050501	Little Rocky Cr. <sup>1</sup>	12,136	66	46	D, G, M, R, ○	High	–	–	–	–	0.1	<0.1	–	–
100700050101	Stillwater River Headwaters-Upper <sup>1,3</sup>	23,500	100	22	M, R, ○	Mod	–	–	–	–	–	–	–	–
100700050105	Stillwater River Headwaters-Woodbine Cr. <sup>1</sup>	40,510	100	14	R, ○	Low	–	–	–	–	–	–	–	–
100700050203	Lower West Fork Stillwater River <sup>1</sup>	14,772	83	28	D, G, M, R, T, ○	Low	–	–	–	–	–	–	–	–
100700050502	Bad Canyon Cr. <sup>1</sup>	12,245	59	16	F, G, R, T, ⊖	High	–	–	–	–	–	–	–	–
100800100502	Crooked Creek-Lost Water Cr. <sup>1</sup>	21,618	37	30	D, F, G, M, R, ○	Mod	–	–	–	–	–	–	–	–
100800140404	Sage Creek-Piney Cr. <sup>1</sup>	38,861	19	70	D, G, M, R, ⊖	Low	–	–	–	–	–	–	–	–

\*SENSITIVE SPECIES: <sup>1</sup> Yellowstone Cutthroat Trout, <sup>2</sup> Northern Leopard Frog, <sup>3</sup> Western (Boreal) Toad

\*\*WATERSHED: PAST, PRESENT, AND FORESEEABLE ACTIVITIES

D - Development/ Floodplain, F - Wild Fire/ Prescribed Fire, G - Grazing/Agriculture, M – Mining, R - Recreation/ Camping, T - Timber Harvest, TMDL – Total Maximum Daily Load (Refer to Table 3-21), NA – Not Applicable,

● – High Route Risk, ⊖ – Moderate Route Risk, ○ – Low Route Risk

Under all action alternatives and for all watersheds in the analysis area (including non-sensitive species occupied watersheds; Water Quality Section, Table 3-25), actions that do not reduce risk to aquatic systems for moderate and high risk routes are negligible at the watershed scale.

At the watershed scale, proposed actions are not considered to be substantial enough to cause measurable changes in water quality, quantity or channel processes under any action alternative. Consequently, cumulative effects to aquatic species and their habitats are not anticipated to result from any of the action alternatives. However, various actions proposed under the action alternatives have the potential to reduce or not reduce the risk of impacts to adjacent aquatic habitats and species in localized areas. These localized impacts are addressed under indirect effects. Alternative B Modified includes the most route mile actions that would result in beneficial impacts (reduce risk) to aquatic systems.

The cumulative effects of the individual action alternatives (A, B, B Modified, and C) when combined with past activities and natural processes, would result in negligible negative impacts to aquatic biota, including sensitive aquatic species, and their habitats throughout the project area. However, only Alternative B Modified provides mitigation to reduce potential adverse effects to aquatic resources in relation to proposed actions that increase risk of moderate and high risk routes.

#### **3.3.1.6 Conclusion - Fisheries and Aquatics**

Proposed actions with site specific effects that potentially increase risk of adverse impacts to aquatic habitat and species are mitigated in Alternative B Modified. Compliance relative to the Record of Decision for this FEIS, only pertains to those routes with proposed actions. Under Alternative B Modified, actions related to moderate and high risk routes are expected to benefit or maintain aquatic habitats, and fish and amphibian species. Only minimal indirect effects to sensitive aquatic species are anticipated under all other action alternatives. Therefore, the Beartooth District is anticipated to move towards compliance with Forest Plan standards and state and federal water quality regulations under all action alternatives. However, Alternative B Modified initiates the most rapid rate of recovery and compliance should be achieved in the shortest timeframe under this alternative.

Appendix E includes opportunities to reduce impacts to water quality, aquatic habitat and biota where there are: 1) site specific impacts from existing routes not associated with the proposed action, and 2) proposed actions with potential to improve conditions but do not eliminate impacts. However, construction, reconstruction, maintenance and decommissioning proposals will require future and separate NEPA decisions.

Relative to sensitive fish and amphibian species, none of the alternatives are likely to result in a trend to Federal listing or loss of viability. The following table summarizes the effects determinations for sensitive aquatic species and aquatic species of concern.

**Table 3-37. Fisheries and Aquatics Effects Summary**

Indicator	Alt. A	Alt. B	Alt. C	No Action	Alt. B Modified
<b>Sensitive Fish and Amphibian Species</b>					
Number of Species with No Impact	2	2	2	2	3
Number of Species with potential to effect individuals or Habitat but will not Likely Contribute to a trend towards Federal Listing or Loss of Viability to the Population or Species	1	1	1	1	0
Number of Species likely to result in a trend to Federal listing or loss of viability	0	0	0	0	0
<b>Aquatic Species of Interest (Wild Trout)</b>					
Alternatives with No Impact	0	0	0	0	X
Alternatives with potential to effect individuals or Habitat but will not Likely Contribute to a trend towards Federal Listing or Loss of Viability to the Population or Species	X	X	X	X	0

**3.3.2 WILDLIFE**

***Overview of Changes from the Draft to the Final EIS***

- Open motorized route density figures for Gray Wolf and Bighorn Sheep analyses were revised to exclude the wilderness area acreage, thus becoming consistent with the Elk and General Wildlife analyses. Since motorized routes are concentrated along the Beartooth Face and in the Pryor Mountains, including the wilderness acres portrayed artificially low route densities.
- The percent of elk secure habitat in the Pryor Unit, the acres of bighorn sheep escape terrain in the Beartooth and Pryor Units, and the acres of bighorn sheep winter range on the Beartooth Unit were corrected to account for GIS process errors that occurred during analysis for the Draft EIS.
- Effects determinations for Canada Lynx, Gray Wolf and Grizzly Bear (and likewise Blue-gray Gnatcatcher and Northern Goshawk) were revised because, although the Preferred Alternative meets the standards and guidelines for these species, human activity on designated routes may cause temporary disturbance of individual animals.
- Most general life history information was removed for the Final EIS and is available in the wildlife report in the project file.

***Introduction***

Public concerns relative to wildlife can be summarized into two primary issues: 1) changes to habitat quality, and 2) effects to wildlife behavior. Habitat concerns include fragmentation, loss, connectivity, and availability of security habitat. Wildlife behavior effects include disturbance, displacement, and responses to noise. Effects for both issues are discussed in general terms in the General Wildlife section as well as in specific species sections relative to those species. Winter over-the-snow travel (i.e. snowmachines, cross-country skiing, etc.) is not part of the current District travel plan process and thus is not discussed. However, winter wheeled motorized vehicle use was considered during analysis.

The District provides habitat for a variety of wildlife species including federally threatened species, ungulates, carnivores, small mammals, resident and migratory birds, amphibians, and reptiles. Travel routes can affect the way many animals use an area because they may bring humans and their associated disturbances into wildlife habitat. The following table displays threatened, endangered, sensitive, and management indicator species on the District, plus other species identified during the public scoping process.

**Table 3-38. Wildlife Analysis Table**

Species Name	Basic Habitat Description and Occurrence in Project Area	Included in Final EIS	Rationale and Other Information
<b>Threatened, Endangered, and Proposed Species</b>			
Canada Lynx (Threatened)	Variety of sub-alpine forest types typically with moderately deep winter snowfall; early successional and older forests that provide snowshoe hare habitat. Den in mature or old-growth stands. Beartooth Unit is occupied habitat; Pryors Unit is unoccupied habitat.	Analysis in FEIS.	Primary concern is human-caused mortality resulting from access to lynx habitat. Potential effects of compacted over-the-snow activities are not part of the decision to be made in this analysis.
Gray Wolf (Experimental nonessential)	Wide range of habitats where native ungulates are present. No known den or rendezvous sites in project area. Species present in Beartooth Unit.	Analysis in FEIS.	Primary concerns are maintenance of prey base, displacement due to recreational activity, and direct human-caused mortality.
<b>Forest Service Sensitive Species</b>			
American peregrine falcon (Falco peregrinus anatum)	Cliff habitat over 200' high with suitable ledges for nest construction. Nesting habitat consisting of three eyries within project area and one adjacent to project area.	Analysis in FEIS.	Included in Migratory Birds discussion
Baird's sparrow (Ammodramus bairdii)	Prefers native prairie but structure is more important so may nest in tame grasses. No habitat in project area.	No further analysis will be conducted.	Not in project area.
Bald Eagle (Haliaeetus leucocephalus) <sup>22</sup>	Riparian habitats, forested areas along rivers and lakes, wetlands, and major water bodies. May use uplands and game winter range during winter. Nesting sites usually in large forested areas near large water bodies. Beartooth Unit of project area used primarily as winter foraging habitat. No known nest sites.	No further analysis will be conducted.	Little nesting habitat and no known nests in project area. Bald eagle presence on District is primarily during winter, and winter over-the-snow travel is not part of the current District travel plan process.
Black-backed woodpecker (Picoides arcticus)	Primary habitat is recently burned forested areas, secondary habitat is spruce/fir forests. Habitat present in project area, but species presence not documented.	Analysis in FEIS.	Included in Migratory Birds discussion
Blue-gray gnatcatcher (Poliopitila)	Open stands of juniper and limber pine with intermixed sagebrush. Species present in Pryors Unit.	Analysis in FEIS.	Included in Migratory Birds discussion

<sup>22</sup> Bald eagle delisted effective August 8, 2007 and subsequently managed as a Forest Service Sensitive Species.

**Table 3-38. Wildlife Analysis Table**

Species Name	Basic Habitat Description and Occurrence in Project Area	Included in Final EIS	Rationale and Other Information
Burrowing owl (Athene cunicularia)	Open grasslands, nesting and roosting in burrows dug by mammals or owls. No habitat in project area.	No further analysis will be conducted.	Not in project area.
Greater sage grouse (Centrocercus urophasianus)	Sagebrush with intermixed grasslands. No leks in project area. Little brood-rearing or winter habitat present.	No further analysis will be conducted.	No breeding habitat in project area. No increased access to habitat is proposed in any alternative.
Grizzly Bear (Ursus arctos) <sup>23</sup>	Remote, well connected forested generalist. Species present in Beartooth Unit.	Analysis in FEIS.	Recent expansion into areas considered biologically unsuitable.
Harlequin duck (Histrionicus histrionicus)	Inhabit fast moving, low gradient clear mountain streams. Species present in Beartooth Unit.	Analysis in FEIS.	Included in Migratory Birds discussion
Loggerhead Shrike (Lanius ludovicianus)	Grassy pastures that are well grazed, nest in shrubs or small trees, preferably thorny such as hawthorn. Habitat present in project area. Species presence unknown.	Analysis in FEIS.	Included in Migratory Birds discussion
Long-billed curlew (Numenius americanus)	Open grasslands or prairie usually near water. No habitat in project area.	No further analysis will be conducted.	Not in project area.
Northern goshawk (Accipiter gentilis)	Mature forest generalist. Species present in project area.	Analysis in FEIS.	Included in Migratory Birds discussion
Long-eared myotis (Myotis evotis)	Use a variety of habitats but are strongly associated with coniferous forests. Species present in project area.	Analysis in FEIS.	Included in Bats discussion. Primary concern is disturbance at roosting sites and hibernacula.
Long-legged myotis (myotis volans)	Primarily a coniferous-juniper forest bat found at moderate elevations (≥6000ft) but may also inhabit riparian cottonwood bottoms and desert areas. Species present in project area.	Analysis in FEIS.	Included in Bats discussion. Primary concern is disturbance at roosting sites and hibernacula.
Pallid bat (Antrozous pallidus)	Arid deserts and grasslands with rock outcrops. Species present in Pryors Unit.	Analysis in FEIS.	Included in Bats discussion. Primary concern is disturbance at roosting sites and hibernacula.
Spotted bat (Euderma maculatum)	Desert to montane coniferous forests. Species present in Pryors Unit.	Analysis in FEIS.	Included in Bats discussion. Primary concern is disturbance at roosting sites and hibernacula.
Townsend’s big-eared bat (Corynorhinus townsendii)	Cave and cave-like structures along with forested foraging habitat. Species present in Pryors Unit.	Analysis in FEIS.	Included in Bats discussion. Primary concern is disturbance at roosting sites and hibernacula.

<sup>23</sup> Grizzly bear delisted effective April 30, 2007 and subsequently managed as a Forest Service Sensitive Species as directed in “Final Conservation Strategy for the Grizzly Bear in the Yellowstone Ecosystem, Interagency Grizzly Bear Study Team, March 2003.”

**Table 3-38. Wildlife Analysis Table**

Species Name	Basic Habitat Description and Occurrence in Project Area	Included in Final EIS	Rationale and Other Information
Black-tailed prairie dog ( <i>Cynomys ludovicianus</i> )	Relatively flat grasslands with diggable soils, throughout the central plains. No habitat in project area.	No further analysis will be conducted.	Not in project area.
White-tailed prairie dog ( <i>Cynomys leucurus</i> )	Xeric sites with mixed stands of shrubs and grasses from the Bighorn Basin in Montana to Utah. Species present in project area.	No further analysis will be conducted.	No increased access to habitat is proposed in any alternative.
Wolverine ( <i>Gulo gulo</i> )	Remote subalpine and spruce/fir forested areas. Species present in Beartooth Unit.	Analysis in FEIS.	Likely present in low densities in the Beartooth Mountains.
Greater short-horned lizard ( <i>Phrynosoma hernandesi</i> )	Areas with short, sparse grass or sagebrush; flats with pebbly or stony soil; and rock outcrops. Species present in Pryors Unit.	No further analysis will be conducted.	No increased access to habitat is proposed in any alternative.
Milk Snake ( <i>Lampropeltis triangulum</i> )	Open sagebrush/grasslands, usually in or near rocky areas. No habitat in project area.	No further analysis will be conducted.	Not in project area.
Western hog-nosed snake ( <i>Heterodon nasicus</i> )	Sagebrush/grassland; arid areas with gravelly or sandy soil. No habitat in project area.	No further analysis will be conducted.	Not in project area.
<b>Management Indicator Species<sup>24</sup></b>			
Northern Goshawk ( <i>Accipiter gentilis</i> ) (H)	Discussed under Sensitive Species	Analysis in FEIS.	Included in Migratory Birds discussion
White-tailed deer ( <i>odocoileus virginianus</i> ) (H, K)	Grassland to montane conifer forest. Species present in project area.	No further analysis will be conducted.	Analysis for elk serves as surrogate for white-tailed deer.
Ruffed grouse ( <i>Bonasa umbellus</i> ) (H)	Primary habitat includes dense early seral staged forests dominated by aspen; secondary habitat includes other dense deciduous or conifer woodland areas. Species present in project area.	Analysis in FEIS.	Included in Migratory Birds discussion
Western kingbird ( <i>Tyrannus verticalis</i> ) (H)	Open or partially open country with scattered trees, including agricultural lands. Habitat not present in project area.	No further analysis will be conducted.	Not in project area.
Bullock's (Northern) oriole ( <i>Icterus bullockii</i> ) (H)	Open deciduous woodland and riparian areas. Habitat present in project area. Species presence unknown.	Analysis in FEIS.	Included in Migratory Birds discussion
Yellow warbler ( <i>Dendroica petechia</i> ) (H)	Brushy riparian especially with willows. Species present in project area.	Analysis in FEIS.	Included in Migratory Birds discussion

<sup>24</sup> H = Habitat Indicator Species; K = Key Species

**Table 3-38. Wildlife Analysis Table**

Species Name	Basic Habitat Description and Occurrence in Project Area	Included in Final EIS	Rationale and Other Information
Oven bird ( <i>Seiurus aurocapillus</i> ) (H)	Mid-late successional, closed-canopied deciduous or deciduous/conifer forests with limited understory. Species present in project area.	Analysis in FEIS.	Included in Migratory Birds discussion
Spotted (Rufous-sided) towhee ( <i>Pipilo maculatus</i> ) (H)	Shrubby riparian areas, woody draws, and woodland undergrowth. Species present in Pryors Unit.	Analysis in FEIS.	Included in Migratory Birds discussion
Brewer’s sparrow ( <i>Spizella Breweri</i> ) (H)	Strongly associated with sagebrush, but also uses other areas with scattered shrubs and short grasses. Species present in project area.	Analysis in FEIS.	Included in Migratory Birds discussion
Sharp-tailed grouse ( <i>Tympanuchus phasianellus</i> ) (H, K)	Mosaic of dense grass and shrubs with forbs for nesting, woody riparian areas in winter. No habitat in project area.	No further analysis will be conducted.	Not in project area.
Yellowstone Cutthroat trout ( <i>Oncorhynchus clarkii bouvieri</i> ) (H, K)	Upper Yellowstone and Upper Snake River drainages. Species present in project area.	Addressed in Fisheries and Aquatics section of FEIS	Discussed in Water Quality, Fisheries, and Aquatics section of FEIS.
Elk ( <i>Cervus canadensis</i> ) (K)	Grassland to forested alpine areas. Species present in Beartooth Unit.	Analysis in FEIS.	Main concerns are potential for displacement due to recreational travel, and vulnerability during hunting season.
Golden eagle ( <i>Aquila chrysaetos</i> ) (K)	Open hilly to mountainous areas. Habitat and species present in project area.	Analysis in FEIS.	Included in Migratory Birds discussion
Merlin ( <i>Falco columbarius</i> ) (K)	Patchy shrub/grassland habitats with large trees to support nesting (secondary nester). Habitat present in project area. Species presence documented in Pryor Unit.	Analysis in FEIS.	Included in Migratory Birds discussion
Mule deer ( <i>Odocoileus hemionus</i> ) (K)	Rugged grassland to forested alpine areas. Species present in project area.	No further analysis will be conducted.	Large habitat overlap between mule deer and elk. Impacts of travel are expected to be similar for the two species. Winter over-the-snow travel is not part of the current travel plan process.
Bighorn sheep ( <i>Ovis canadensis</i> ) (K)	Remote, steep, rugged terrain, such as mountains, canyons, and escarpments where precipitation is low and evaporation is high. Species present in project area.	Analysis in FEIS.	Primary concerns are potential for displacement due to recreational activity, including wheeled motorized use on winter range.
Pronghorn antelope ( <i>Antilocapra americana</i> ) (K)	Rolling grasslands to mixed sagebrush shrublands. Little habitat exists in project area.	No further analysis will be conducted.	No increased access to habitat is proposed in any alternative.

**Table 3-38. Wildlife Analysis Table**

Species Name	Basic Habitat Description and Occurrence in Project Area	Included in Final EIS	Rationale and Other Information
<b>Other Species of Concern</b>			
Mountain Goat	Rugged, rocky mountainous terrain with talus slopes and shear cliffs. Species present in Beartooth Unit.	No further analysis will be conducted.	No increased access to habitat is proposed in any alternative.
Marten	Mesic, mature conifer and mixed forests. Species present in project area.	No further analysis will be conducted.	Primary concern is vulnerability to trapping. Trapping season is Dec.-Feb. Winter over-the-snow travel is not part of the current travel plan process.
Fisher	Mainly dense, structurally complex conifer and mixed forests. Habitat present. Species presence unknown but considered unlikely.	No further analysis will be conducted.	Presence of species unlikely.

Potential effects of the alternatives on the following species and/or their habitats are analyzed in detail: Canada lynx, gray wolf, grizzly bear, wolverine, elk, and bighorn sheep. Long-eared myotis, long-legged myotis, Pallid bat, Spotted bat, and Townsend’s big-eared bat are included in the Bats discussion. In addition, sensitive and management indicator bird species present on the District are included in a general sense in the Migratory Birds discussion.

The list of federally Threatened and Endangered species for the Custer National Forest and counties encompassed by the Beartooth Ranger District was verified through the U.S. Fish and Wildlife Service in March 2008 (US Fish and Wildlife Service 2008). The grizzly bear was removed from the Federal threatened and endangered species list effective April 30, 2007, and the bald eagle was delisted effective August 8, 2007. Delisting of the Northern Rocky Mountain gray wolf population will become effective March 28, 2008 unless the U.S. Fish and Wildlife Service is challenged on the final rule for removing the Northern Rocky Mountain gray wolf population from the Federal List of Endangered and Threatened Wildlife.

Applicable background information regarding specific species biological requirements, and general effects including effects of roads and recreation on wildlife, were taken from the Gallatin National Forest Travel Plan Environmental Impact Statement and the Helena National Forest North Belts Travel Plan Wildlife Report.

**3.3.2.1 Affected Environment – Threatened and Endangered Species Canada Lynx**

***Regulatory Framework***

The Canada lynx was listed as a federally threatened species under the Endangered Species Act (ESA) of 1973 in March 2000. At that time, the Forest Service signed a Lynx Conservation Agreement (CA) with the U.S. Fish and Wildlife Service. Under the CA, the Forest Service agreed to consider the Canada Lynx Conservation Assessment and Strategy (LCAS) (Ruediger et al 2000) during project analysis. The CA was renewed in 2005 and the concept of occupied mapped lynx habitat was added. In 2006, the CA was amended to define occupied habitat and list the National Forests that were occupied. It was also extended until 2011 or until all relevant forest plans were revised to provide guidance necessary to conserve lynx. The Northern Rockies Lynx Management Direction (LMD), released in March 2007, was developed to fulfill the Forest Service’s agreement to amend the plans.

**Chapter 3: Affected Environment and Environmental Consequences**

The purpose of the Direction is to “incorporate management direction in land management plans that conserves and promotes recovery of Canada lynx, by reducing or eliminating adverse effects from land management activities on National Forest System lands, while preserving the overall multiple-use direction in existing plans” (USDA Forest Service 2007a).

***Affected Environment - Canada Lynx***

Lynx have been documented on rare occasion on the Beartooth Unit of the Beartooth District. Foraging and denning habitat are present, but denning has not been documented on the District.

The LMD (USDA Forest Service 2007a) discusses the effects of forest roads on lynx. Lynx have been killed by vehicle-collisions on paved, high-speed highways and high-speed gravel roads, but no lynx mortality from vehicle strikes have been documented on National Forest system roads in the LMD planning area. Lynx may use less-traveled roads for travel and foraging if good snowshoe hare habitat is present (Koehler and Brittel 1990; LCAS 2000). Lynx seem to neither prefer nor avoid roads (McKelvey et al. 2000; USDI FWS 2000; Ruggiero et al. 2000) except at high traffic volumes (Apps 2000). Unpaved roads are not considered a threat to lynx movement (USDI 2003) and lynx appear in general to have low susceptibility to displacement by humans during spring, summer, and fall (USDA Forest Service 2007a). However, lynx may move their kittens to avoid disturbance from road use during summer in denning habitat (Ruggiero et al. 2000; LCAS 2000).

Management direction in the LMD applies to occupied lynx habitat in Lynx Analysis Units (LAUs) on National Forest system lands and is recommended for application to unoccupied habitat. A LAU is an area of at least the size used by an individual lynx and is the unit for which the effects of a project are analyzed. The Beartooth District contains four LAUs. The Rock Creek, Rosebud, and Stillwater LAUs encompass the Beartooth Mountains Unit, and the Pryor Mountains LAU encompasses the Pryor Mountains Unit. The LMD classifies the Beartooth Unit as occupied lynx habitat and the Pryor Unit as unoccupied habitat. The LMD does not have objectives, standards, or guidelines that apply to the scope of this analysis. However, the LCAS provides a programmatic road density guideline of a maximum two miles/square mile for Forest backcountry roads and trails. The following Table displays the lynx habitat and the open road miles and density by Lynx Analysis Unit on the District.

**Table 3-39. Designated Motorized Route Miles and Density by LAU and Alternative.**

LAU	Total LAU Acres	Acres of lynx habitat in LAU	Open motorized route miles and density (mi/sq mi) by Alternative									
			Alt. A		Alt. B		Alt. C		No Action		Alt. B Modified	
			Miles	Density	Miles	Density	Miles	Density	Miles	Density	Miles	Density
Rock Creek	151,493	68,426	30	0.3	24	0.2	22	0.2	26	0.2	26	0.2
Rosebud	160,050	58,015	20	0.2	19	0.2	17	0.2	17	0.2	18	0.2
Stillwater	214,168	71,676	21	0.2	19	0.2	14	0.1	18	0.2	18	0.2
Pryors	77,972	28,357	31	0.7	22	0.5	12	0.3	28	0.6	23	0.5
<b>Total</b>	<b>603,683</b>	<b>226,474</b>	<b>97</b>	<b>0.3</b>	<b>84</b>	<b>0.2</b>	<b>65</b>	<b>0.2</b>	<b>89</b>	<b>0.3</b>	<b>85</b>	<b>0.2</b>

**3.3.2.2 Environmental Consequences – Threatened and Endangered Species: Canada Lynx**

***Direct and Indirect Effects***

The presence of roads and trails represents a direct loss of habitat that has already occurred, and their

use can pose a threat of lynx mortality from vehicles. Indirectly, the impacts of roads include increased access for both legal and illegal hunters and trappers, decrease in prey habitat, disruption of lynx travel and hunting patterns, and potential avoidance of human activity areas (Koehler and Brittell 1990, Brittell et al. 1989).

**Effects Common to All Alternatives**

Direct habitat loss would not increase under any alternative because construction of new routes is not proposed. No alternatives exceed the LCAS programmatic guideline for Forest backcountry roads and trails relative to road density of a maximum 2.0 mi/sq mi for any LAUs.

Vehicle-related lynx mortality is unlikely given the relatively low speeds and traffic volumes on National Forest system roads.

No vegetation treatment is proposed with this analysis and the components of denning and foraging habitat would not change.

**Alternative A and No Action Alternative**

The overall availability of lynx habitat plus grass/shrubland or riparian areas serving to connect blocks of lynx habitat would be effectively the same under Alternative A and the No Action alternative. Habitat availability would be less than and road density greater (0.1 mi/sq mi) than in Alternative B, Alternative C, and Alternative B – Modified, resulting in an increased potential for human-related lynx vulnerability or mortality. The reduction in road density and habitat availability would be small relative to the total acreage of habitat available in each LAU, as would the increased lynx vulnerability and potential for mortality.

**Alternative B, Alternative C, and Alternative B Modified**

The availability of lynx habitat would be effectively the same under Alternatives B, C, and B Modified and higher than in Alternatives A and the No Action alternative. Again, the 0.1 mi/sq mi decrease in road density compared to Alternatives A and No Action would be small, as would the decreased lynx vulnerability and potential for mortality.

***Cumulative Effects - Canada Lynx***

Based on the past and current vegetation management on the District, including timber harvest, livestock grazing, prescribed fire, the invasive species program, aspen regeneration, and other vegetation projects, forest vegetation conditions provide habitat for lynx foraging, denning, and dispersal. The impacts of different types of dispersed recreation including the outfitter/guide program; recreation residences; fire suppression; and the lands, minerals, and non-recreation special use programs on the District have been minor. Conversely, effects of a developed ski area and associated base facilities have contributed to a direct loss or modification of habitat that may be affecting lynx denning, foraging, and diurnal security habitat to some degree. Given that anticipated direct and indirect effects to lynx and habitats from any of the alternatives is small, cumulative effects of past, present, and reasonably foreseeable future activities is also expected to be small.

**Consistency with Laws, Regulations, and Policy**

All alternatives are consistent with the laws, regulations, policy, and Federal, Regional, and State direction, the Custer National Forest Management Plan, the Canada Lynx Conservation and Assessment Strategy, and the Northern Rockies Lynx Management Direction. Of these regulatory

### **Chapter 3: Affected Environment and Environmental Consequences**

directions, the latter two documents specifically address Forest roads relative to lynx conservation and recovery.

#### **3.3.2.3 Affected Environment – Threatened and Endangered Species: Gray Wolf**

##### ***Regulatory Framework***

The northern Rocky Mountain wolf was listed as an endangered species under the Endangered Species Act in the lower 48 states in 1974. The U.S. Fish and Wildlife Service (FWS) approved a recovery plan for the gray wolf in the northern Rocky Mountains in 1980 and a revised plan in 1987. To further the recovery of gray wolves in the northern U.S. Rocky Mountains, the FWS in 1994 declared wolves in the Yellowstone and Central Idaho areas as experimental/nonessential. This designation facilitated the reintroduction of wolves into Yellowstone National Park and central Idaho in 1995 and 1996. All recovery criteria for wolves in the Greater Yellowstone Recovery Area were met in 2002. Unless the U.S. Fish and Wildlife Service is challenged on the final rule for removing the Northern Rocky Mountain gray wolf population from the Federal List of Endangered and Threatened Wildlife, delisting will become effective March 28, 2008.

##### ***Affected Environment - Gray Wolf***

At least two packs utilize the Beartooth Unit of the District, the Rosebud and Moccasin Lake packs (Trapp 2007). Occasional wolves that are probably not associated with these packs have also been reported on the Beartooth Unit. Although no packs are known to utilize the Pryor Mountains Unit, this unit is included in the analysis because potential exists for wolves to utilize the area.

Effects of road density on wolves can vary. Wolves in the Northern Rockies do not appear to avoid areas of high road density as much as wolves in the Great Lakes region. Paved roads with high traffic volumes have served as barriers to gray wolf movement and dispersal (Claar et al. 1999), although these are typically highways rather than forest roads. Wolves often travel on lower standard forest roads and snowmobile trails because they provide easy travel routes. However, wolves are much more likely to be in proximity to humans when they use roads. Gray wolf mortality therefore tends to be higher in areas of higher road density (Fritts et al. 2003). Despite this trend towards higher mortality in areas of higher road density, recommendations for motorized access route densities within gray wolf habitat were not included in either the Northern Rocky Mountain Wolf Recovery Plan (USDI 1987) or the Montana Gray Wolf Conservation and Management Plan (Montana Department of Fish, Wildlife and Parks 2003).

Although human-caused mortality of wolves is generally higher in areas with greater open motorized route densities, it may also occur in backcountry areas away from open motorized routes. One-third of documented wolf mortality east of the central Rockies in Canada was road related (Paquet 1993) and three quarters of human-caused wolf mortality in the U.S. Northern Rockies occurred within 250 meters of a road (Boyd-Heger 1997). Roads accessing remote areas can result in collisions with vehicles and increased harvest, poaching, or disturbance of wolves. Effects of road density on wolves can vary. Gaines et al (2003) cite various authors who report that gray wolves are sensitive to road-related factors but are not particularly affected by summer recreational trails.

Research in the upper Great Lakes states examined road densities and wolf activity. Mech et al (1988) and Theil (1985) found that wolves avoided or were displaced from areas with road densities greater than 1 mi/sq mi. Authors cited in Mech and Boitani (2003) report that wolves did not recolonize areas

with road densities greater than 0.6 km/square km (0.23 mi/sq mi); that most recolonizing occurred where road density was less than 0.45 km/square km (0.17 mi/sq mi); and that as recolonization continued, wolves occupied areas with greater than 0.6 km/square km (0.23 mi/sq mi) road density. According to the 2003 Montana Gray Wolf Conservation and Management Plan, it would be difficult to extrapolate the Great Lake results to this region because of differences in human population densities, habitat characteristics, and land physiography. The underlying concern about road density in the northern Rockies stems from the potential for illegal killing. Most researchers agree that increased road densities reduced wolf survival (MTFWF. 2003). In the mountainous landscapes of the northern Rockies, wolves selected areas that were lower elevation, flatter, and closer to roads. However, an increased probability of human-caused mortality was associated with increased road use by wolves (MTFWF. 2003). Roads can also benefit wolves by providing easier travel routes. No known instances of illegal wolf mortality have occurred within the District boundary.

Open motorized route density and changes in route density from No Action are displayed in the following Table. Because it would be difficult to extrapolate route density recommendations from studies in the Upper Great Lakes region (Mech et al. 1988, Theil. 1985, and Mech and Boitani. 2003) to this region (MTFWF. 2003) densities should only be used as a relative indicator of increases or decreases from the No Action densities to indicate potential effects to gray wolf displacement, avoidance, and recolonization. Roads can also benefit wolves by providing easier travel routes.

**Table 3-40. Open Motorized Route Density on Beartooth District**

Area	Alternative A	Alternative B	Alternative C	No Action	Alt. B Modified
<b>Route density (miles/square mile)</b>					
Beartooth Unit*	0.64	0.62	0.50	0.55	0.61
Pryor Unit	1.5	1.1	0.85	1.2	1.1
<b>Average</b>	<b>0.88</b>	<b>0.72</b>	<b>0.60</b>	<b>0.73</b>	<b>0.75</b>
<b>Change in Route Density from No Action</b>					
Beartooth Unit*	+ 0.09	+ 0.07	- 0.05	0	+ 0.06
Pryor Unit	+0.30	-0.10	-0.35	0	- 0.10
<b>Average</b>	<b>+0.15</b>	<b>- 0.01</b>	<b>- 0.13</b>	<b>0</b>	<b>+0.02</b>

\* Excludes Absaroka-Beartooth Wilderness Area

**3.3.2.4 Environmental Consequences – Threatened and Endangered Species: Gray Wolf**

*Direct and Indirect Effects*

**Effects Common to All Alternatives**

There would be no effects to den or rendezvous sites since those sites are not present on the District. This situation could change, however, if wolves den on the District in the future. Since wolves frequently use portions of the District, an adequate prey base is assumed to be present.

**Alternative A**

In the Beartooth and Pryors Units, Alternative A would have increase open motorized route density over No Action by 0.09 and 0.30 mi/sq mi, respectively. This is the highest motorized route density of the alternatives.

**Alternative B, No Action, and Alternative B Modified**

In the Beartooth Unit, Alternatives B and B Modified would increase open motorized route density

### **Chapter 3: Affected Environment and Environmental Consequences**

over No Action by 0.07 and 0.06 mi/sq mi, respectively. In the Pryor Unit, Alternatives B and B Modified would each decrease open motorized route density over No Action by 0.10 mi/sq mi.

#### **Alternative C**

In the Beartooth and Pryor Units, Alternative C would increase open motorized route density over No Action by 0.05 and 0.35 mi/sq mi, respectively. This is the lowest motorized route density of the alternatives.

#### ***Cumulative Effects - Gray Wolf***

Projects that have improved habitat for elk, the primary prey of wolves in the Yellowstone ecosystem, are beneficial for wolves. Past projects include prescribed burning and aspen regeneration. By the same token, reasonably foreseeable future prescribed burning and aspen regeneration projects that improve elk habitat would also benefit wolves. No livestock depredation has occurred on grazing allotments on the District, thus livestock grazing on the District so far has not adversely affected wolves. However, human-caused wolf mortality resulting from livestock depredation has occurred on private lands near the District.

#### ***Consistency with Laws, Regulations, and Policy***

All alternatives are consistent with the laws, regulations, policy, and Federal, Regional, and State direction, the Custer National Forest Management Plan, and the Montana Gray Wolf Conservation and Management Plan. None of these regulatory directions specifically address Forest roads relative to wolf conservation and management.

### **3.3.2.5 Affected Environment – Sensitive Species: Grizzly Bear**

#### ***Regulatory Framework***

The grizzly bear in the lower 48 states was listed by the U.S. Fish and Wildlife Service as a threatened species under the Endangered Species Act in 1975. Due to population growth of grizzly bears and development of State and Federal regulatory mechanisms, the Yellowstone grizzly bear population was determined to be recovered and was delisted effective April 30, 2007 (USDI 2007).

The Conservation Strategy for Grizzly Bear in the Yellowstone Ecosystem (ICST 2003) was developed by the Interagency Conservation Strategy Team, completed in March 2003, and updated in March 2007. The habitat and conservation standards described in the Conservation Strategy have formally been incorporated into the six affected National Forests' Land Management Plans and provide the direction for managing grizzly bear habitat on the National Forests.

#### ***Affected Environment - Grizzly Bear***

Grizzly bears occur throughout the Beartooth Unit of the District and mainly inhabit the Absaroka-Beartooth Wilderness Area. However, the species has also been documented in recent years along the Beartooth Face outside the wilderness area.

Motorized access is one of the most influential factors affecting grizzly bear habitat use. Open road density has been used historically to measure human impacts to grizzly bear habitat (ICST 2007). Numerous authors discuss habitat security relative to roads. Although results vary depending on factors such as habitat quality, cover availability, traffic volume, and season, the common theme is that bears use habitat adjacent to motorized routes less than areas farther from these routes. Analysis

of bear habitat use at three spatial scales in relationship to roads demonstrated the common pattern that avoidance of roads increased as road densities and traffic volumes increased (Mace et al. 1996).

Relative to travel management, the Conservation Strategy identifies monitoring of secure habitat as the mechanism to manage grizzly bear habitat. The standard for secure habitat in the Conservation Strategy is “the percent of secure habitat within each Bear Management Subunit must be maintained at or above levels existing in 1998” (ICST 2007). The subunit on the Beartooth District is the Boulder/Slough #1. It is primarily in the Absaroka-Beartooth Wilderness Area, plus part of the Gallatin National Forest. The 1998 baseline for the Boulder/Slough #1 subunit is 96% secure habitat. Secure habitat is defined as any area more than 500 m from an open or gated motorized access route and greater than or equal to 10 acres in size. The year 1998 was chosen as the baseline because this was the access level at which the grizzly bear population recovered. Some deviations are allowed under specific conditions. Although the direction applies only to the Recovery Zone (Primary Conservation Area), land management agencies are encouraged to maintain or improve important grizzly bear habitats and to monitor habitat conditions outside the Primary Conservation Area (PCA) as well.

Ninety-six percent of the portion of the Boulder/Slough #1 subunit that is on the Beartooth District, all within the PCA, would be secure habitat in all alternatives. Availability of secure grizzly bear habitat outside the PCA is displayed in the following Table. The 1998 baseline was not available for the area outside the PCA. However, the availability of secure habitat can still be compared between alternatives.

**Table 3-41: Availability of Secure Grizzly Bear Habitat outside the Primary Conservation Area**

Type of Habitat	Percent of available habitat that is secure				
	Alt. A	Alt. B	Alt. C	No Action	Alt. B Modified
Biologically Suitable*	91	92	92	92	92
Biologically Unsuitable+	52	59	64	57	58
Biologically Suitable and Unsuitable Combined	79	82	84	81	82

\* Present in the Beartooth Unit, + Present in the Beartooth and Pryor Units

**3.3.2.6 Environmental Consequences – Sensitive Species: Grizzly Bear**

*Direct and Indirect Effects*

**Effects Common to All Alternatives**

The presence of the Absaroka-Beartooth Wilderness Area and several inventoried roadless areas ensures that 96% of the portion of the Boulder/Slough #1 subunit that is on the Beartooth District, all within the PCA, would be secure habitat in all alternatives. Thus, all alternatives would meet the secure habitat standard inside the PCA. This would be the case even when considering expected increasing future motorized use as discussed in the Affected Environment – Recreation – Recreation Trends section of this document. Outside the PCA, availability of secure biologically suitable habitat would effectively be the same among the alternatives, 91% in Alternative A and 92% in the other four alternatives. This is again due to the wilderness area plus inventoried roadless areas. In addition, over 50% of habitat considered biologically unsuitable for grizzly bears would also be secure. This is pertinent in that grizzly bear use of areas considered biologically unsuitable has been documented

### **Chapter 3: Affected Environment and Environmental Consequences**

within the last five years.

#### **Alternative A**

Under Alternative A, 52% of biologically unsuitable habitat would be secure, the least of the alternatives. Thus, this alternative would have the least potential to accommodate grizzly bear expansion. As stated above, this is pertinent because grizzly bear use of areas considered biologically unsuitable has been documented within the last five years.

#### **Alternative B, No Action, and Alternative B Modified**

Secure habitat in biologically unsuitable areas would be effectively the same under these three alternatives, ranging from 57% to 59%. Thus, potential to accommodate grizzly bear expansion would be greater than in Alternative A, and less than in Alternative C.

#### **Alternative C**

Under Alternative C, 64% of biologically unsuitable habitat would be secure, the highest of the alternatives. Thus, this alternative would have the greatest potential to accommodate grizzly bear expansion. Again, this is pertinent because grizzly bears have been documented using such areas as recently as year 2004.

#### ***Cumulative Effects – Grizzly Bear***

Evidence strongly supports the idea that activities such as grazing, timber harvest, motorized tourism, real estate development, and mining, and the roads that support such activities, displace bears from what otherwise would be occupied habitat (Craighead et al. 1995). In addition, human-caused mortality is more likely to occur in heavily roaded areas of their range (various authors *cited in* Craighead et al. 1995). Current and reasonably foreseeable future activities that may affect habitat on the Beartooth District include fuels reduction on federal land, and livestock grazing on federal and private lands. These activities may contribute to a small extent to cumulative effects. Continued housing development and increased road density on private lands adjacent to the Forest boundary are expected to gradually reduce available suitable habitat outside the Primary Conservation Area.

No human-caused mortality has been reported for the District. Two human-grizzly bear conflicts documented on the District occurred outside the geographic area analyzed for the travel plan (i.e. the southernmost portion, which is administered by the Gallatin National Forest). One control action has been taken on private land outside the Forest boundary. Increased public education and food storage order enforcement on the District would help reduce potential for human/bear conflicts.

Given that over 96% of the PCA and over 91% of the biologically suitable habitat outside the PCA would continue to be secure habitat under all alternatives, cumulative effects of past, present, and reasonably foreseeable future actions is expected to be small.

#### **Consistency with Laws, Regulations, Policy, and Forest Plan**

All alternatives are consistent with the laws, regulations, policy, and Federal, Regional, and State direction, the Custer National Forest Management Plan, Forest Plan Amendment for Grizzly Bear Habitat Conservation for the Greater Yellowstone Area National Forests, and the Final Conservation Strategy for the Grizzly Bear in the Yellowstone Ecosystem. Of these directions, the latter two discuss travel management relative to grizzly bear conservation.

**3.3.2.7 Affected Environment – Sensitive Species: Wolverine**

Wolverine presence has been documented in the Beartooth Mountains unit of the District and wolverines are expected to occur in low numbers across the Beartooth Mountains. Wolverines typically occupy habitats within or near forest cover. In a study of wolverines in northwest Montana, Hornocker and Hash (1981) found that the majority of wolverine locations were in large areas of mature forest and associated open, rocky and alpine areas. Subalpine fir and associated seral species were the habitat types frequently used.

Across the wolverine’s range throughout North America and Eurasia, the majority of natal den sites involve areas of deep snow accumulation, with snow tunnels often forming part of the den infrastructure (Pulliainen 1968, Magoun 1985, Copeland 1996). Approximately 35,600 acres of denning habitat are present on the District.

In addition to denning habitat, refugia are also important components of wolverine habitat. Gaines et al (2003) cite various authors who report that wolverines are sensitive to road-related factors but are not particularly affected by recreational trails. Roads may lead to displacement of wolverines from security areas (refugia), as well as den sites, because of increased access for human recreation. Trapper access, and consequently wolverine vulnerability to trapping, is directly correlated to roads. Winter appears to be the most critical period for disturbance and displacement associated with road access (Copeland and Hudak 1995). Refugia may include areas such as designated wilderness areas, inventoried roadless areas, and research natural areas. Available refugia by alternative are displayed in the following Table.

**Table 3-42: Wolverine Refugia Availability by Alternative**

Alternative	Acres of refugia	% of Beartooth Unit available as refugia
Alternative A	346,300	66
Alternative B	389,600	74
Alternative C	389,600	74
No Action Alternative	346,300	66
Alterative B Modified	371,155	71

Motorized route densities are another method of analyzing potential disturbance effects on wolverines. Rowland and coauthors (2003) evaluated models for wolverine habitat in the northwestern United States and concluded that road densities were a reasonable proxy for human disturbance relative to wolverine occurrence on the landscape. A model developed for the Interior Columbia River Basin found wolverine occurrences to be distinguishable between low road densities ( $\leq 0.44 \text{ km/km}^2$  or  $\leq 0.7 \text{ mi/mi}^2$ ) and moderate road densities (from  $0.45$  to  $1.06 \text{ km/km}^2$  or from  $0.8$  to  $1.7 \text{ mi/mi}^2$ ). This model did not show a distinction in wolverine occurrences from moderate to high ( $> 1.06 \text{ km/km}^2$  or  $> 1.7 \text{ mi/mi}^2$ ) road densities (Rowland et al. 2003). Another model for the Rocky Mountain region (Carroll et al. 2001) found that predicted wolverine occurrences declined when road densities exceeded  $1.7 \text{ km/km}^2$  ( $2.7 \text{ mi/mi}^2$ ).

Using these apparent break points (low  $\leq 0.7 \text{ mi/mi}^2$ , moderate from  $0.8$  to  $2.7 \text{ mi/mi}^2$ , and high  $> 2.7 \text{ mi/mi}^2$ ), comparisons were made between alternatives to present possible differences in human disturbance potential. Trails open to motorcycles and/or ATVs were included in motorized route density calculations, under the assumption that motorized access has the same disturbance effect on

wolverines regardless of the vehicle used.

### **3.3.2.8 Environmental Consequences – Sensitive Species: Wolverine**

#### ***Direct and Indirect Effects***

##### **Effects Common to All Alternatives**

Motorized route densities under all alternatives would be characterized as low ( $\leq 0.7$  mi/sq mi).

Non-denning refugia are best described in terms of availability of secure, undisturbed blocks of habitat. The Absaroka-Beartooth Wilderness Area provides 332,600 acres of habitat relatively undisturbed by human activity. Several inventoried roadless areas are well distributed across the Beartooth Face and would provide an additional 13,700 acres of relatively secure habitat under all Alternatives. Motorized route designation varies by alternative for several other inventoried roadless areas, thus the suitability of those roadless units as refugia also would vary. Even accounting for different motorized route designations in some roadless units, approximately three-quarters or more of habitat on the District would still be available as large, secure areas for wolverines under all Alternatives.

##### **Alternatives A and No Action**

At 66%, the availability of non-denning refugia would be lowest under Alternatives A and the No Action alternative. There would be a higher number of motorized routes in wolverine habitat under Alternative A and the No Action Alternative compared to the other Alternatives. The result would be somewhat higher vulnerability to human-caused disturbance or mortality.

##### **Alternative B, Alternative C, and Alternative B Modified**

Non-denning refugia availability would be the highest under Alternatives B and C (74%), and less under Alternative B Modified (71%). Thus, it would be similar among these three alternatives. The lower number of motorized route miles under these alternatives would result in somewhat lower vulnerability to human-caused disturbance or mortality compared to the other two Alternatives.

#### ***Cumulative Effects - Wolverine***

Developments on the District such as Red Lodge Mountain Ski Area and past and current mining operations have likely reduced availability of summer wolverine habitat. Approved expansion of the ski area would further reduce habitat availability. Future Federal actions with potential to impact wolverine habitat include commercial and noncommercial timber harvest, noxious weed treatment, and aspen restoration. Effects of timber harvest may be positive or negative depending upon whether it improves or degrades ungulate habitat. By reducing the acreage and geographic distribution of invasive plant species, noxious weed treatment encourages an increase in native plant species which in turn improves forage for wolverine prey species. By the same token, aspen regeneration also improves forage and cover for ungulates. Overall, given that anticipated direct and indirect effects to wolverine and their habitat is small between the alternatives, cumulative effects of past, present, and reasonably foreseeable future activities is also expected to be small.

#### ***Consistency with Laws, Regulations, and Policy***

The National Forest Management Act (36 CFR 219.19) directs federal agencies to manage habitat to provide for viable populations of all native and desired non-native fish and wildlife species. The

wolverine is native to the Beartooth Mountains, and is classified as a Forest Service sensitive species. Sensitive species are those for which population viability is of concern. Direction for management of sensitive species is contained in the Forest Service Manual (FSM 2672.1), which states that these species must receive special management emphasis to ensure their viability and to preclude trends toward endangerment that would result in the need for Federal listing. All alternatives are consistent with the afore-mentioned direction.

**3.3.2.9 Affected Environment – Sensitive Species: Bat Species**

Five Forest Service sensitive bat species (Spotted bats, Townsend’s big-eared bats, Pallis bats, Long-eared myotis, and Long-legged myotis), occur on the District.

Although different bat species have specific habitat needs, some generalizations can be made. During summer, which is the reproductive season, bats may use various roost sites such as rock crevices, caves, talus slopes, snags, buildings, and bridges. Hibernacula are located in underground caverns with temperatures above freezing. Deep limestone caverns are particularly important for hibernating bats in the Rocky Mountains (Adams 2003). Hibernating bats are especially vulnerable to disturbance because when aroused from hibernation, they use winter fat needed to support them until insects are available in the spring. A single arousal most likely costs a bat as much energy as it would normally expend during two to three weeks of hibernation. Thus, frequently aroused hibernating bats may starve before spring (Harvey et al. 1999).

Most bats are very sensitive to disturbance (Schmidt 2003). Human-caused adverse impacts to bats include habitat destruction, direct mortality, vandalism, and disturbance of hibernating and maternity colonies. Disturbance to hibernacula and maternity colonies is a major factor in the decline of many bat species. Human-caused arousal from hibernation costs bats energy that may lead to starvation before spring (Harvey et. al. 1999). The body warmth from a person standing 10 feet below a hibernating bat may be enough to stimulate the bat’s arousal (Adams 2003). Disturbance to summer maternity colonies may cause parents to drop or abandon their dependent young (Harvey et. al. 1999). Activities such as rock climbing or caving may take a toll on nursery colonies (Adams 2003). Surveys for hibernacula, colonial roosts, and maternity colonies have not been conducted on the District. However, hibernacula have been documented on adjacent lands outside the Forest Boundary of the Pryor Unit and potential habitat for hibernacula and colonial roosting is present on the Unit. In addition, documentation of post-lactating females suggests that maternity colonies are also likely to be present. Potential effects of the alternatives on bats in the Pryor Unit were analyzed in terms of miles of open motorized routes. The reason for using this method is that the presence of motorized routes can facilitate access to caves, thus potentially leading to adverse indirect effects by disturbance of bats at hibernacula, roosting, and maternity sites. Miles of open motorized routes are displayed in the following table.

**Table 3-43. Motorized Route Miles by Alternative – Pryors Unit**

Alternative	Motorized Route Miles
Alternative A	177
Alternative B	125
Alternative C	79
No Action Alternative	149
Alternative B Modified	124

### **Chapter 3: Affected Environment and Environmental Consequences**

On the Beartooth Unit, hibernacula are not expected to be present due to lack of caves. For the same reason, colonial roosts and maternity colonies are also not expected to occur. Roosting and maternity sites on the Beartooth Unit are more likely to occur in rock crevices in limestone outcrops along the Beartooth face, as well as in tree snags, talus, and other habitats. Sizable effects to bats in these settings are more likely to be caused by loss of habitat than by human disturbance at any particular site. Thus, effects of the Beartooth Travel Management to bats in the Beartooth Unit were not analyzed.

#### **3.3.2.10 Environmental Consequences – Sensitive Species: Bat Species**

##### ***Direct and Indirect Effects***

The presence and use of roads and trails are not expected to directly affect bats or their habitat. However, the presence of motorized routes can facilitate access to bat habitat, particularly to caves, thus leading to adverse indirect effects by disturbance of bats at hibernacula, roosting, and maternity sites.

##### **Alternative A**

Alternative A would have the highest number of open motorized route miles (177) in the Pryors Unit. This alternative would provide the least protection to bat colonies because caves would be more easily accessible than under the other alternatives. The lack of seasonal restrictions would facilitate access to potential hibernacula during years when snow cover is low enough to allow wheeled motorized access to cave and mine areas. Hibernating bats would be vulnerable to disturbance during a period of their life cycle when repeated disturbance could ultimately lead to mortality.

##### **Alternative B and Alternative B Modified**

These two alternatives would have similar open motorized route miles (125 and 124 respectively) and would have lower potential to impact bat colonies than Alternative A. Seasonal restrictions would benefit bats by reducing human access to caves, especially during hibernation when bats are particularly vulnerable to disturbance. By the time seasonally restricted roads are opened in early summer, most bats are likely to have naturally aroused from hibernation.

##### **Alternative C**

Alternative C would have the lowest open motorized route miles (79) and thus would provide the most protection to bat colonies overall because caves would be less easily accessible than under the other alternatives. However, this alternative would have fewer route miles with seasonal restrictions than the other alternatives and thus would allow motorized wheeled access during low-snow winters to caves that would not otherwise be accessible. Hibernating bats in accessible areas would be vulnerable to disturbance and potentially human-induced arousal from hibernation.

##### **No Action**

This alternative would have 149 miles of open motorized routes and thus would protect bat colonies overall more than Alternative A and less than the other alternatives. Access to potential hibernacula and thus potential for disturbance of hibernating bats would be similar to Alternative A.

##### ***Cumulative Effects - Bat Species***

Several factors have likely contributed to cumulative effects to bats in the project area. Several

entrances to abandoned mines were closed in the 1990's. Closed entrances can affect air flow through connected tunnels, altering temperature and humidity within the mine and potentially making conditions unsuitable for bats even if other entrances to the same mine are available. Past and current spelunking may also have affected bats by disturbing day roosts, maternity sites and hibernacula, although the extent to which this is an issue is not known. On the other hand, installation of bat gates to prevent human access to several abandoned mines in the Pryor Mountains has benefited bats by minimizing potential for human disturbance of bats utilizing those mines.

Effects of past timber harvest are hard to assess. Most bat species tend to avoid large open habitats when possible. However, many species forage along forest edges. Heterogeneous habitats containing open, brushy, and forested areas provide optimal foraging conditions because of the presence of extensive habitat edge (Adams 2003). Timber harvest in the form of clearcuts occurred in the Pryor Mountains in past decades. The extent that cutting units have regenerated is variable, with some naturally regenerated to dense shrub cover, others to seedling and sapling Douglas Fir of varying degrees of canopy cover. The combination of vegetative structure and forest edge likely provides suitable foraging conditions for bats, but how the suitability would compare to an unmanaged condition at similar sites is not known.

Current and future cattle grazing can damage sensitive habitats, particularly riparian systems. Shoreline damage can lead to erosion that lowers water quality and changes stream flow dynamics. Soil damage, particularly along stream and pond shorelines, can suppress vegetation growth and thus lower the diversity of insect prey (Adams 2003). Cattle grazing occurs across much of the non-wilderness portion of the District and will continue in the future. One goal of livestock management on the District is to bring non-functioning and functional-at-risk riparian systems up to properly functioning condition. Improvement over time of degraded riparian systems would improve foraging and water quality conditions for bats and thus reduce adverse cumulative effects.

#### ***Consistency with Laws, Regulations, and Policy***

The National Forest Management Act (36 CFR 219.19) directs federal agencies to manage habitat to provide for viable populations of all native and desired non-native fish and wildlife species. The five bat species analyzed are native to this area, and are classified as Forest Service sensitive species. Sensitive species are those for which population viability is of concern. Direction for management of sensitive species is contained in the Forest Service Manual (FSM 2672.1), which states that these species must receive special management emphasis to ensure their viability and to preclude trends toward endangerment that would result in the need for Federal listing. This analysis considered potential for alternative scenarios to have adverse impacts on bats and thus is consistent with the above direction.

#### **3.3.2.11 Affected Environment – Management Indicator Species: Elk**

The elk analysis serves as a surrogate for mule deer and white-tailed deer. This is because there is a large amount of overlap in habitat between deer and elk, and impacts of travel management on the District are expected to be very similar for these species.

#### ***Elk Habitat Use and Travel***

Many studies have shown that motorized access influences elk habitat use (Lyon 1983, Frederick 1991, Lyon and Christensen 2002). Elk have repeatedly been shown to avoid habitat adjacent to open

### **Chapter 3: Affected Environment and Environmental Consequences**

roads (Lyon et al. 1985). Declines in habitat use have been reported within 0.25-1.8 miles of open roads (Lyon and Christensen 2002), but substantial reductions in habitat use are normally confined to <0.5 miles of an open road. Many variables influence elk habitat use relative to open roads.

Observed declines in habitat use adjacent to roads have led to the development of elk habitat effectiveness models. Habitat effectiveness refers to the percentage of available habitat that is usable by elk outside the hunting season (Lyon and Christensen 1992). The literature contains several recommendations for managing open roads within summer elk habitat. Using Lyon's model for habitat effectiveness based entirely on road density (Lyon 1983), Christensen et al. (1993) recommended that habitat effectiveness should be 70% or greater (open road density <0.7 mi/sq mi) for areas intended to benefit elk summer habitat and retain high use. Areas where elk are one of the primary resource considerations should have habitat effectiveness of 50% or greater (open road density <1.9 mi/sq mi).

Areas with <50% habitat effectiveness (>1.9 mi/sq mi) were expected to make only minimal contributions to elk management goals (Christensen et al. 1993). Additionally, Canfield et al. (1999) recommended that open road densities should be less than 1.0 mi/sq mi in big game summer habitat, with scattered key areas with no roads. However, the 2005 Montana Elk Management Plan does not contain objectives or recommendations for management of open road density within summer elk habitat.

Most studies involving the effects of motorized uses on elk involved roads with passenger vehicle use rather than motorized trails where ATVs and/or motorcycles are used. Therefore, there is very little data available to use in assessing the impacts of motorized trails on elk. Wisdom et al. (2004) discussed preliminary findings from a controlled experimental study evaluating the effects of ATVs, mountain bikes, hiking, and horseback riding on elk and mule deer. Their initial results indicate that elk exhibited much higher rates of movement (or greater displacement) and probability of flight response from ATVs and mountain bikes compared to horses and hikers. Canfield et al. (1999) and Toweill and Thomas (2002) both state that the effects of open motorized trail use are likely similar to those resulting from open roads. The two uses are similar in that both allow easier access to areas that would otherwise be inaccessible without considerable effort using non-motorized transportation. Therefore, travel route densities incorporating motorized trails cannot be compared to published habitat effectiveness models, but they can be used to compare Travel Plan effects among alternatives. As with open road density and habitat effectiveness values, the existing literature does not identify a clear link between open motorized route densities and elk population demographics. Therefore, conclusions on expected travel management planning impacts can only address disturbance and displacement of elk from habitat and not population responses.

#### ***Elk Vulnerability and Travel***

Studies have been conducted to determine factors influencing elk vulnerability to hunting and management solutions to the problem of low mature bull elk numbers. One of the conclusions was that motorized access is one of the major factors influencing elk vulnerability, along with hunter numbers, availability of security cover, topography, hunting season structure and length, hunting equipment technology and others. Data have consistently shown that elk mortality rates increase with increasing open road density, because the number of hunters and their distribution both tend to increase with increasing road density (Skovlin et al. 2002). This is especially true for bulls because hunting regulations have traditionally allowed greater opportunity for harvesting them compared to

cows (Vore and Desimone 1991).

Motorized access is one of the few factors affecting elk vulnerability that the Forest Service has management authority for. Hillis et al. (1991) provided guidelines for managing elk habitat to limit elk vulnerability. The key concept was to provide security areas for elk during the hunting season where they are less vulnerable to harvest. They defined secure areas as >250 acres in size and >0.5 mile from an open road, and recommended that they comprise >30% of the analysis unit. Although open roads have the largest effect on elk vulnerability, restricted roads also have an impact because they provide easier access for hunters using non-motorized transportation (Skovlin et al. 2002). Lyon and Burcham (1998) found that elk hunters are likely to use closed roads to access areas farthest from open roads. The Hillis guidelines for secure areas included a recommendation to minimize closed roads within elk security areas, but did not provide standards for accomplishing this (Hillis et al. 1991). The 30% secure habitat level should be viewed as the minimum necessary to avoid excessive bull elk mortality during the hunting season, realizing that more may be necessary in some districts due to variables such as topography, vegetation cover, and hunting pressure. Elk security habitat and open motorized route density by alternative is displayed in the following Table.

**Table 3-44. Percent Elk Security Habitat and Vulnerability by Alternative**

Alternative	Beartooth Unit		Pryors Unit	
	% Elk Security	Open Motorized Route Density (miles/square miles)	% Elk Security	Open Motorized Route Density (miles/square miles)
A	65	0.47	22	1.49
B	68	0.41	25	1.16
C	69	0.37	37	0.69
No Action	64	0.44	23	1.44
B Modified	66	0.39	26	1.27

The Montana Final Elk Management Plan gives population objectives and general habitat management strategies for each Elk Management Unit (EMU) (Montana Fish, Wildlife and Parks 2005). Habitat objectives stated in the plan for the Absaroka EMU (the EMU encompassing most of the Beartooth Unit) are to encourage private and public landowners to maintain or improve existing elk habitat.

Habitat objectives were not developed for the Mid-Yellowstone EMU (the EMU encompassing the Pryor Mountains) because occupied habitat in the EMU is predominately on private lands. However, elk habitat is present in the Pryors Unit of the Beartooth District and elk have been documented within the Forest boundary in the past three years. Thus, a broadscale estimate of habitat in the Pryors Unit was included in the elk analysis because there is potential for long-term elk occupancy of the area.

**3.3.2.12 Environmental Consequences – Management Indicator Species: Elk**

*Direct and Indirect Effects*

**Effects Common to All Alternatives**

All alternatives would meet the access and habitat standards for elk in the Beartooth Unit. Open motorized route densities would range from 0.37 to 0.47 mi/sq mi. This is within Canfield et al’s (1999) recommendations to manage roads at <1.0 mi/sq mi for summer elk habitat for all alternatives.

### **Chapter 3: Affected Environment and Environmental Consequences**

Secure elk habitat in the Beartooth Unit would range from 64% to 69%, well above the recommended 30% minimum from Hillis et al. (1991). Under all alternatives, the majority of elk summer range security cover would be in areas adjacent to or otherwise connected to the Absaroka-Beartooth Wilderness Area.

Since elk analysis is used as a surrogate for mule deer and white-tailed deer, effects described for elk would also apply to deer.

#### **Alternative A and No Action**

On the Pryor Unit, Alternatives A and No Action would have the highest open motorized route density relative to wolves (1.5 mi/sq mi) and in elk habitat (1.49 and 1.44 mi/sq mi, respectively), plus would provide the lowest elk security cover (22% and 23%, respectively).

#### **Alternative B and B Modified**

Open motorized route density for Alternatives B and Alternative B Modified are 1.16, and 1.27 mi/sq mi, respectively and approach the density recommendation of 1 mi/sq mi. Secure elk habitat would range from 23% to 26%, which is below the recommended 30% minimum.

#### **Alternative C**

Alternative C, with open motorized route density of 0.69 mi/sq mi in elk habitat, and security cover of 37%, and would fall within the recommendations for elk.

#### ***Cumulative Effects - Elk***

Several past and ongoing habitat enhancement activities on the District have improved habitat for elk. These activities include thinning and prescribed burning on elk winter range to improve forage quality and availability, and to increase the acreage of available habitat by reducing conifer species that have gradually encroached onto winter range. The long-term aspen regeneration program benefits elk by improving forage and cover. Spraying of invasive plant species reduces competition with native plants that provide forage for elk.

Current and future cattle grazing can damage sensitive habitats, particularly riparian systems. Cattle grazing occurs across much of the non-wilderness portion of the District and will continue in the future. One goal of livestock management on the District is to improve vegetative condition in areas that have been degraded by past grazing practices. Improvement in the health of native vegetation may benefit elk in the short and long term time frames.

Housing developments on private land in some areas continue to directly reduce habitat availability for elk, plus increase potential indirect habitat loss through spread of noxious weeds. In addition, disturbance of elk due to the presence of domestic dogs on developed land adjacent to the Forest adds to adverse cumulative effects. In other areas, development is precluded, at least for the near future, through ownership of large blocks of land by a few owners.

Density of motorized non-Forest Service roads within the Forest boundary is 0.03 to 0.04 mi/sq mi, depending upon the alternative. Contributions of these roads to adverse cumulative effects within the Forest boundary are expected to be minimal.

***Consistency with Laws, Regulations, and Policy***

All alternatives are consistent with the Custer National Forest Management Plan which contains relevant direction for management of big game populations. The goal for key wildlife species, including big game species, relative to travel management planning states, “Where necessary to protect wildlife values, access and/or traffic will be restricted in key wildlife habitats during critical periods.” Key habitats are described in Appendix VII of the Forest Plan and largely occur in Management Area C relative to core elk winter range where seasonal motorized use restrictions apply.

**3.3.2.13 Affected Environment – Management Indicator Species: Bighorn Sheep**

Rocky Mountain bighorn sheep occur on both the Pryor Unit and Beartooth Unit. Bighorn sheep in the Beartooths include the Rock Creek/Hellroaring, West Rosebud River, and Stillwater River herds. Sheep in the Beartooth Mountains winter as high as 11,000 feet in elevation, with summer range typically occurring at lower elevations (Stewart 1975). Sheep in the Stillwater River area frequent grounds on and near the Stillwater Mine during winter. Bighorn sheep utilize the eastern portion of the Pryor Mountains during summer, but locations reported in Wockner et al (2003) show that winter use only occurs at lower elevations to the southeast outside the Forest boundary.

Numerous authors discuss behavioral responses of bighorn sheep to human disturbance. MacArthur et al (1982) found that mountain sheep elicited few responses to traffic and were more sensitive to human approach over a ridge than approach directly from a parked vehicle. The strongest reactions to human approach occurred when the person was accompanied by a leashed dog. This is not surprising since canids are traditional predators of mountain sheep. In a study by Papouchis et al (2001), desert bighorn sheep responded most severely to hikers (animals fled in 61% of encounters), followed by vehicles (17% fled), and mountain bikers (6% fled). The high response to hikers may be because they often approach sheep directly and their locations are often unpredictable.

Bighorn sheep can habituate to some common and predictable human activity (MacArthur et al 1982, Beecham et al 2007). Bunch and Workman (1993) subjected bighorn sheep, elk, and antelope in a large enclosure to disturbances from people on foot, motorcycles, four-wheeled vehicles, and other factors. The animals appeared to habituate to most disturbances in a short period of time except for people on foot and certain aircraft activity. Apparent levels of tolerance may be misleading, however. MacArthur et al (1982) and Stemp (1983) reported that responses to disturbance detected using heart rate telemetry were often not evident from behavioral cues. Even brief disturbances can have long-lasting effects on bighorn sheep heart rate and thus are probably energetically costly to animals (Hutchins and Geist 1987). Also, human presence near lambing areas may be detrimental to bighorn sheep in some locations (Beecham et al 2007).

Proximity to escape terrain is an important component of bighorn sheep habitat, particularly during lambing. Escape terrain can provide secure habitat for bighorn sheep to retreat to when disturbed, including disturbance from vehicle use and other human activity. On winter range, sheep can spend up to 86% of their time within 100m of rocky escape terrain. Specific guidelines for analyzing bighorn sheep were not found in the literature. Thus, for this analysis, we defined escape terrain as areas greater than or equal to 60% slope (based on Valdez and Krausman 1999) and greater than ½ mile from an open motorized route. One-half mile was selected to be consistent with criteria for other ungulates, namely elk. The following tables show the availability of escape terrain and winter range

**Chapter 3: Affected Environment and Environmental Consequences**

under each alternative. The acreages are compared as the percent change from the No Action Alternative.

**Table 3-45. Comparison of Bighorn Sheep Escape Terrain<sup>25</sup> by Alternative**

Alternative	Escape Terrain – Pryors Unit		Escape Terrain – Beartooth Unit	
	Acres	% Change from No Action Alternative	Acres	% Change from No Action Alternative
A	3920	-11.9	5543	-1.5
B	4926	+10.9	5904	+4.9
C	6138	+28.5	5970	+6.0
No Action	4388	--	5612	--
B Modified	5129	+14.4	5809	+3.4

**Table 3-46. Comparison of Bighorn Sheep Winter Range on Beartooth Unit by Alternative<sup>26</sup>**

Alternative	Acres winter range within motorized route buffer <sup>27</sup>	% Change from No Action Alternative	Acres winter range outside motorized route buffer <sup>27</sup>	% Change from No Action Alternative
A	8373	+4.8	10,076	-4.0
B	8191	+2.7	10,258	-2.2
C	8161	+2.4	10,288	-1.9
No Action	7966	--	10,483	--
B Modified	8316	+4.2	10,129	+3.5

**3.3.2.14 Environmental Consequences – Management Indicator Species: Bighorn Sheep**

***Direct and Indirect Effects***

**Effects Common to All Alternatives**

The Stillwater Bighorn Sheep Herd on winter range on and adjacent to the Stillwater Mine is not expected to be affected by any of the alternatives. This is because changes in motorized route designation in this area are not proposed under any alternative.

**Alternative A**

The availability of escape terrain would be the least under Alternative A in both the Beartooth and Pryors Units. The acreage of winter range outside the motorized route buffer would be lowest under this alternative. Thus, potential for disturbance of bighorn sheep would be greatest under this alternative.

**Alternative B**

Availability of escape terrain would be greater than under Alternatives A and No Action in both the Beartooth and Pryor Units, and less than the Alternative B Modified and No Action alternatives. Winter range availability would be approximately the same as under Alternative C.

<sup>25</sup> Escape terrain is areas  $\geq 60\%$  slope and  $>1/2$  mile from motorized routes

<sup>26</sup> Pryors Unit is excluded because winter range is outside Forest boundary.

<sup>27</sup> Buffer is area  $\leq 1/2$  mile from motorized routes.

### **Alternative C**

The availability of escape terrain would be the highest under this alternative in both the Beartooth and Pryors Units. The greatest difference would be in the Pryors, where Alternative C would provide 28.5% more escape terrain than under the No Action Alternative. This alternative would provide more winter range than Alternatives A and B Modified, and less than the No Action alternative.

### **No Action**

Under the No Action Alternative, escape terrain availability in both the Beartooth and Pryors Units would be greater than Alternative A, and less than all other alternatives. The acreage of winter range outside the open motorized route buffer would be highest under the No Action Alternative.

### **Alternative B Modified**

Availability of escape terrain in the Beartooth and Pryors Units would be higher than all alternatives except Alternative C. The availability of winter range outside the open motorized route buffer would be lower than all alternatives except for Alternative A.

### ***Cumulative Effects – Bighorn Sheep***

Mineral exploration activities in bighorn sheep habitat, especially in the Stillwater Complex, are not expected to contribute adversely to cumulative effects. Mitigation measures, particularly related to helicopter flight path and height above ground level, are included in current approved plans of operations to minimize disturbance of bighorn sheep. Similar measures would also be included in future plans of operations.

Several mitigation measures are conducted to minimize adverse effects of activity associated with the Stillwater Mine on bighorn sheep. Among the measures are road signs near the Stillwater Mine asking motorists to not stop when bighorn sheep are present near the road, spraying of noxious weeds, and annual monitoring of the Stillwater bighorn sheep herd. Currently, reclamation areas provide winter forage for Stillwater bighorn sheep. At the time of future mine closure, reclamation areas would continue to provide winter forage in the short term. However, forage quality on the reclaimed areas would likely decrease over time in the long term.

Noxious weed treatment on bighorn sheep range reduces competition with native plant species and is thus beneficial to bighorn sheep.

Bighorn sheep utilize areas adjacent to abandoned uranium mines identified for reclamation in the Pryor Mountains. Reclamation activities potentially may cause short-term disturbance and displacement of individual sheep. Once reclamation is completed, the disturbance factors associated with it would cease, thus contribution to cumulative effects is not expected.

Future wildfires potentially may improve bighorn sheep habitat. Stand-replacement fire in the Pryor Mountains (i.e. the 2002 Red Waffle fire) caused tree canopy removal and increased grass and forb quantity on steep slopes. The result was creation of escape habitat and forage in areas where it previously was limited or did not exist.

### ***Consistency with Laws, Regulations, and Policy***

The Custer National Forest Management Plan contains relevant direction for management of big game populations. The protection measure for key wildlife species, including big game species, relative to

**Chapter 3: Affected Environment and Environmental Consequences**

travel management planning states, “Where necessary to protect wildlife values, access and/or traffic will be restricted in key wildlife habitats during critical periods.” All alternatives are consistent with the above direction on occupied bighorn sheep range.

**3.3.2.15 Affected Environment – General Wildlife**

Focal species are species used as surrogates in assessing ecological integrity (CFR Vol 65 No 218, November 2000). The distribution and abundance of focal species can indicate the integrity of the larger ecosystems that they belong to. They also can “play key roles in maintaining community structure and processes” (Gaines et al, 2003) and thus can be indicators of species diversity. Focal species associated with each wildlife group, as selected by Gaines et al (2003) are shown in the following Table.

**Table 3-47. Focal Wildlife Species**

<b>Wildlife Group</b>	<b>Focal Species</b>
Wide-ranging carnivores	Grizzly bear, lynx, gray wolf, wolverine
Ungulates	Mule deer, elk, bighorn sheep, mountain goats
Late-successional-forest associated species	Northern goshawk, brown creeper, American marten, fisher, northern flying squirrel, white-breasted nuthatch
Riparian-associated species	Harlequin duck, bald eagle
Primary cavity nesters	Three-toed woodpecker

Gaines et al (2003) conducted a literature review to document the effects of roads, motorized trails, non-motorized trails, and other linear recreation routes on focal wildlife species. The most common interaction identified in the literature relative to motorized roads and trails was displacement and avoidance, where animals altered their use of habitats in response to the motorized routes. Disturbance at a specific site was also commonly identified and was usually associated with wildlife nesting, breeding, or rearing of young. Other frequently reported interactions associated with roads or road networks included collisions between animals and vehicles, and edge effects.

The interactions associated with non-motorized trails were similar to that of motorized trails and include displacement, avoidance, and disturbance at a specific site during a critical period. The interaction varied depending upon wildlife species, with some more sensitive to motorized trail use and others more sensitive to non-motorized trail use. Although both forms of recreation have effects on wildlife, motorized trails showed a greater magnitude of effects, such as longer wildlife-displacement distances, for a larger number of focal species (Gaines et al. 2003). The following Table details documented effects of roads and trails on wildlife habitat or populations.

**Table 3-48. Documented Effects Associated with Roads and Trails**

<b>Road- and trail-associated factors</b>	<b>Effects of factors</b>	<b>Wildlife group affected</b>
Hunting & trapping	Mortality from hunting or trapping as facilitated by road and trail access	Wide-ranging carnivores Ungulates
Poaching	Increased illegal take of animals as facilitated by trails and roads	Wide-ranging carnivores Ungulates

**Table 3-48. Documented Effects Associated with Roads and Trails**

<b>Road- and trail-associated factors</b>	<b>Effects of factors</b>	<b>Wildlife group affected</b>
Collisions	Death or injury resulting from a motorized vehicle running over or hitting an animal	Wide-ranging carnivores Late successional Riparian associated Ungulates
Negative human interactions	Increased mortality of animals owing to increased contact with humans, as facilitated by road and trail access	Wide-ranging carnivores Late successional Ungulates
Movement barrier or filter	Alteration of dispersal or other movements as posed by a road or trail itself or by human activities on or near a road or trail or network	Wide-ranging carnivores Late successional Riparian associated Ungulates
Displacement or avoidance	Spatial shifts in populations or individual animals from a road or trail or network in relation to human activities on or near a road or trail or network.	Wide-ranging carnivores Late successional Riparian associated Ungulates
Habitat loss and fragmentation	Loss and resulting fragmentation of habitat owing to the establishment of roads and trails, road and trail networks, and associated human activities	Wide-ranging carnivores Late successional Riparian associated Ungulates
Edge effects	Changes to habitat microclimates associated with the edge induced by roads or trails	Late successional
Snag or downed log reduction	Reduction in density of large snags and downed logs owing to their removal near roads or campsites, as facilitated by road access	Late successional Riparian associated Primary cavity excavators
Route for competitors or predators	A physical human-induced change in the environment that provides access for competitors or predators that would not have existed otherwise	Wide-ranging carnivores Late successional Riparian associated Primary cavity excavators
Disturbance at a specific site	Displacement of individual animals from a specific location that is being used for reproduction and rearing young	Wide-ranging carnivores Late successional Riparian associated Ungulates
Physiological response	Changes in heart rate or level of stress hormones as a result of proximity to a road or trail	Ungulates Late successional

For this analysis, road and trail factors will be grouped and discussed under the topics of Mortality and Habitat Modification/Changes to Behavior.

### ***Mortality***

Large numbers of animals are killed annually on roads. The rate of mortality is directly related to vehicle speed (Lyon 1985), although road width and traffic volume also affect roadkill rates (Forman

### Chapter 3: Affected Environment and Environmental Consequences

and Alexander 1998). Since forest roads are not designed for high-speed traffic, direct mortality on forest roads is usually not important relative to large mammals (Lyon 1985). Forest carnivores are an exception because their large home ranges make them especially vulnerable to road mortality (Baker and Knight 2000). Amphibians and reptiles are particularly susceptible on two-lane roads with low to moderate traffic (Forman and Alexander 1998).

A study that analyzed over 100 bird and mammal species in England concluded that roadkill rates may not affect population size on a national scale (Forman and Alexander 1998). However, rates of roadkill mortality can be high enough to reduce population densities at the local level (Forman et al. 2003).

The presence of roads can lead indirectly, as well as directly, to wildlife mortality. Roads provide human access that can result in hunting, trapping, and poaching. The numbers of miles of designated motorized routes on the District are as follows:

**Table 3-49. Motorized Route Miles by Alternative\***

Alternative	Motorized Route Miles
Alternative A	341
Alternative B	261
Alternative C	198
No Action Alternative	287
Alternative B Modified	267

\* From Ch. 2 Table 2-8

Since small, slow-moving animals are susceptible to mortality even on narrow roads; motorized trails were included in the above road mileages.

#### ***Habitat Modification/Changes to Behavior***

##### **Motorized**

Animals may respond either positively or negatively to the presence of a road. Response can occur through the mechanisms of shifts in home range, altered movement patterns, altered reproductive success, altered escape response, and altered physiological state (Trombulak and Frissell 1999).

Trombulak and Frissell reference numerous studies that document behavioral changes due to roads. Both black bears and grizzly bears shifted their home ranges away from areas with high road densities (Brody and Pelton 1989, McLellan and Shackleton 1988). Elk in Montana preferred spring feeding at sites away from visible roads (Grover and Thompson 1986). Mountain lion home ranges are in areas with lower densities of improved dirt roads (Van Dyke, et al. 1986). In contrast, turkey vultures preferentially establish home ranges in areas with greater road densities (Coleman and Frasier 1989), probably because of increased carrion resulting from roadkill.

Roads may also act as barriers to movement, particularly for small mammals and wetland species such as amphibians and turtles. Road width and traffic density are major factors contributing to barrier effect, whereas road surface is generally a minor factor. Some large mammals, such as wolverine, appear to not be affected by the presence of roads as far as home range size and shape is concerned (Forman and Alexander 1998). Others including pronghorn antelope (Bruns 1977) and mountain lions (Van Dyke et al 1986) seem reluctant to cross roads.

Knight and Cole (1995a) presented specific effects of recreational activities typically associated with roads and trails on wildlife. Backpacking, hiking, and horseback riding elicited flight and/or elevated heart rates, and displacement. Motorized vehicles including motorcycles, ATVs, quadricycles, dune buggies, amphibious vehicles, and air-cushion vehicles potentially cause disturbance (flight and/or stress) and redistribution.

Noise is one of the major factors in wildlife displacement and habitat loss. Noise can be defined as any “human-made sound that alters the behavior of animals or interferes with their normal functioning” (Bowles 1995). Sound is a physical disturbance medium that is usually measured in decibels (dB), discussed further in the FEIS Recreation – Affected Environment – Noise. Some sounds are either higher or lower than what humans and some terrestrial animals can hear. Characteristics such as a species hearing ability, ability to escape sound, habituation to noise, and other factors need to be considered when assessing effects of noise on wildlife (Finegold, et al 2004). Kaseloo and Tyson (2004) discuss numerous studies of effects of noise on specific species and species groups. Review of the results indicates that apparent affects of specific noise levels is quite variable between on species.

Decibel levels (dB) of some vehicles commonly used on the National Forest include: 1) automobile from a distance of 25 feet – 80 dB (Truax 1999); 2) diesel truck from 50 feet – 84 dB (Federal Interagency Committee on Noise 1992); 3) motorcycle - 88 to 100 dB (Galen Carol 2007, Truax 1999); and 4) truck without muffler – 90 dB (Earthlink 2008) Decibel levels for other vehicles pertinent to the Beartooth Travel Management, including ATV’s, were not found.

A number of studies have shown that wild ungulates and carnivores increase movement in response to aircraft, snowmobiles, construction noise, road traffic, and walking visitors. Large mammals alter habitat use for 1-2 days after being disturbed by noise. Large mammals are able to adapt to predictable disturbance by avoiding an area during this time period. Mammals will habituate to noises without negative consequences, but do not habituate to being hunted, which actually amplifies their responses. Mammals can track noise and respond to noise that is approaching directly rather than to noise approaching them tangentially. Mammals may also abandon newborn young in response to noise. Startled carnivores may kill and eat their own young. Short-term aversive responses in mammals vary from mild reactions such as becoming alert to more severe activity such as running away while urinating or defecating (Bowles 1995).

In general, with repeated exposures to either motorized or non-motorized activity, animals habituate or adapt both physiologically and behaviorally. Unfamiliar noise is more likely to arouse an animal than a harmless, familiar noise. Animals may have one of three responses to noise: attraction, tolerance or aversion. Mild responses may be difficult to detect. If mammals are repeatedly exposed to the same noise stimulus without negative associations, responses decline rapidly. Vertebrates can track the direction of movement and typically respond more strongly to direct approaches than to tangential passes (Knight and Gutzweiler 1995).

### **Non-motorized**

Non-motorized recreation can have adverse affects on wildlife, although the majority of literature deals with motorized effects. Literature documents the effects of non-motorized human activity on shorebirds, bald eagles, and various species of big game through activities such as walking, rafting,

**Chapter 3: Affected Environment and Environmental Consequences**

and cross-country skiing. For instance, elk can be easily disturbed by people on foot or skis (Cassierer et al. 1992).

One study on grizzly bears in Montana found that grizzly bears use areas near motorcycle and ATV trails less than expected (Graves 2002). Another study assessing grizzly bear habitat use in relation to non-motorized trails found that bears were displaced from non-motorized trails (Mace and Waller 1996). Some differences in response by bears to trails may be due to relative amounts of recreational use on trails.

Some species do respond positively to the presence of roads and trails. Routes may increase habitat for some species that prefer edges. New microhabitats may be created along roads, such as at bridges that bats may use for roosting. Habitat enhancements may occur along roads, such as perches for raptors, increased forage from planted species, and carrion from road kills (Forman et al 2003).

To analyze the general effects of motorized and non-motorized routes on wildlife, a one km buffer on each side of a route was used as suggested by Ruediger (1996). This is considered the “virtual footprint” (Forman et al. 2003) of the route on the land. This is an average, but the true impacts of routes vary significantly with terrain, vegetation, amount and types of use on the route, species-specific behavior, and other factors. Only Forest Service routes on the National Forest were analyzed. Since research has generally shown that motorized routes have more of an impact on general wildlife species than non-motorized routes, these percentages were derived separately as well as in combination. The percent of the Beartooth Unit and the Pryor Unit untouched by the two km footprint of these routes is referred to as “core” (Core should not be confused with secure habitat for grizzly bears.) The results are shown in the following table. The percent of the District outside the two km footprint is the area where wildlife generally is undisturbed by travel routes and the activities that accompany them. Research has been conducted on the specific response of some wildlife species to motorized and non-motorized routes. Refer to other analyses for species such as grizzly bear, elk, wolverine and lynx. These analyses are tailored to the species, with reviews of species-specific research, while the analysis presented here is very general.

In general, effects of roads and trails on most wildlife species are negative (Boyle and Samson 1985). The effects may vary by wildlife species and by individual. Effects also vary by the type of activity occurring on the road or trail. Seasonal closures of routes may offer some benefit to wildlife. Some routes were selected for seasonal closures during important times of year for a particular species, particularly big game. If motorized routes are closed when and where these activities occur, animals can function with less energy expenditure and more efficiency.

**Table 3-50. Percent of Unit That is Core for Wildlife**

Route Type	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
<b>Beartooth Unit</b>					
Motorized Routes	82	83	83	82	82
All Routes* (motorized and non-motorized)	56	57	57	57	57
<b>Pryor Unit</b>					
Motorized Routes	16	25	35	22	27
All Routes* (motorized and non-motorized)	16	25	35	22	27

\*The All Routes category (motorized and non-motorized) includes routes both inside and outside the Absaroka-Beartooth Wilderness Area.

### 3.3.2.16 Environmental Consequences – General Wildlife

#### *Direct and Indirect Effects*

##### **Effects Common to All Alternatives**

*Mortality:* Approximately 16 miles of paved roads under Forest Service jurisdiction are on the District. No changes in paved roads are proposed under any alternative. In addition, no changes are proposed for higher speed unpaved roads. Thus, the potential for animal mortality caused by collision with vehicles on paved and higher speed unpaved roads would be the same under all alternatives.

*Habitat Modification /Changes to Behavior:* Ruediger (1996) estimates that displacement of some species, or indirect habitat loss due to roads, may average 1 km on each side of a highway in a forested area and up to 3 km on each side in open habitats. For the affected area for general wildlife, we assumed a 1 km buffer on each side of both motorized and non-motorized routes, recognizing that this is probably an overestimate of some effects and an underestimate of others in all alternatives.

The percent of the Beartooth Unit available as core habitat would be essentially the same under all alternatives.

##### **Alternative A**

*Mortality:* This alternative has the highest number of open motorized route miles and thus the greatest potential for mortality, particularly of small, slow moving animals.

*Habitat Modification /Changes to Behavior:* In the Pryors Unit, the availability of “core” habitat is 16%, the smallest of the alternatives. Thus, the potential for effects on wildlife is greatest under this alternative.

##### **Alternative B, No Action and Alternative B Modified**

*Mortality:* The open motorized route miles, and thus the potential for mortality, would be similar under these two alternatives. It would be less than under Alternative A, but higher than Alternative C.

*Habitat Modification /Changes to Behavior:* In the Pryors Unit, “core” area would be similar under these three Alternatives. It would be 5 to 11 percent greater than Alternative A and 8 to 13 percent less than Alternative C.

Controlling dispersed recreation along riparian corridors in the Main Fork of Rock Creek and West Fork of Rock Creek is proposed under Alternative B. Wildlife, especially birds and medium to small mammals, would benefit from reduced disturbance and vegetation damage in these sensitive habitats.

##### **Alternative C**

*Mortality:* With the lowest open motorized route miles (195), this alternative has the lowest potential for leading to wildlife mortality.

*Habitat Modification/Changes to Behavior:* In the Pryors Unit, availability of “core” is 35%, the highest of the alternatives. Thus, the potential for effects to wildlife is the least under this alternative.

***Cumulative Effects – General Wildlife***

*Mortality:* Most of the mortality that occurs to wildlife species occurs on high speed, paved routes such as highways. Mortality on these types of roads can be significant for some species at some times of year. This is a cumulative effect that adds to effects on National Forest System routes.

*Habitat Modification /Changes to Behavior:* The analysis of indirect habitat loss or displacement was presented for public Forest Service motorized and non-motorized routes on National Forest only. There is also a cumulative effect of private, county, state and federal roads on the National Forest or adjacent lands that were not considered in this analysis. There are an increasing number of private routes on private land near the Beartooth portion of the District. The impacts to wildlife on private land and displacement of wildlife from private land are a cumulative effect that is likely to continue to increase.

There are cumulative effects of the human activity associated with roads and trails. One of these is the presence of pets (usually dogs) that can provoke a predator-alarm response, harassment and energy expenditure, and occasionally direct mortality of wildlife. There are also effects of the activities that humans do when they use roads and trails, including hunting, fishing, trapping, firewood cutting, viewing wildlife, rock climbing, spelunking, etc. All of these activities can potentially disturb wildlife, and some can cause direct mortality (Knight and Cole 1995). Hiking, biking, fishing, ATV use, horseback riding, dispersed camping, and other recreational activities are projected to increase sizably over the next ten to twenty years. This will gradually add to cumulative impacts over time.

The presence of roads may allow non-native species of animals to more easily move into an area or be introduced into an area by humans. An example of this would be the introduction of non-native bullfrogs that can extirpate native amphibians and fish (Maxell and Hokit 1999). Another example would be the introduction of the raccoon into areas where it had not previously existed. Raccoons can have negative effects on birds via nest predation. The presence of roads may facilitate the introduction of these types of species into areas where they have never existed and where the native fauna is not equipped to respond well to their presence.

One important cumulative effect is the development that is occurring near the National Forest or on private inholdings within the Forest. Ruediger (1996) suggests that as roads of increasingly high quality become available in an area, one can expect development to increase along these linear features. Seasonal use may become year-round. Areas become developed with subdivisions and the supporting infrastructure. This has serious impacts on wildlife habitat that is a cumulative effect of the presence of roads.

Dispersed recreation has increased on the Forest, and the appreciation for nonconsumptive uses of wildlife has also increased. Increased human use of the Forest displaces wildlife and can degrade habitat. Recreational residence sites remove wildlife habitat and may displace wildlife in those areas. Outfitter/guides offer non-consumptive wildlife activities as well as take many hunters into the Forest. Outfitter/guiding is regulated, and probably is less impactful to wildlife than non-outfitted activities (USDA Forest Service 2006). Developed ski areas are more likely to affect wolverine and lynx and are addressed as separate topics in this EIS. Some wildlife species could be affected by removal of trees from these areas. The acquisition of private lands within the District Boundary has helped protect wildlife habitat from development. Conservation easements on private lands outside the Forest protect habitat and are beneficial to wildlife.

The presence of large wilderness areas on the District and adjacent Forests offers a refuge for many wildlife species sensitive to the presence of humans. This has led to the presence of a high percent of habitat that is non-motorized and where wildlife is relatively undisturbed by large numbers of people.

Livestock grazing will continue on the District. Improved range management practices and monitoring of range condition are expected to improve wildlife habitat. Control of noxious weeds is important for maintaining high quality wildlife habitat and will continue in the future. Efforts to restore native vegetation to the landscape or enhance species that are declining are beneficial to wildlife.

Future improvements of FS roads and motorized routes may increase the impact of these facilities to wildlife by encouraging greater use. Other routes would be closed to public use, which would benefit wildlife in general.

An increase in dispersed recreation in which many of the dispersed users are interested in wildlife may actually be somewhat detrimental to the resource they wish to see, photograph, or hunt. Additional education of the public on their wildlife resource is important so that wildlife habitat is protected as are the animals that use it. Increasing public use will decrease the ability of wildlife to fully occupy available habitat, and some species are more likely to be affected than others.

***Consistency with Laws, Regulations, and Policy***

The wildlife goal in the Custer National Forest Management Plan is to “manage and/or improve key wildlife and fisheries habitats, to enhance habitat quality and diversity, and to provide wildlife and fish-oriented recreation opportunities.” Forest Service Manual 2672.4 requires review of “all Forest Service planned, funded, executed, or permitted programs and activities for possible effects on endangered, threatened, proposed, or sensitive species.” All alternatives are consistent with the Custer National Forest Management Plan and Forest Service Manual direction.

**3.3.2.17 Affected Environment – Migratory Birds**

***Regulatory Framework***

Migratory bird species are protected under the Migratory Bird Treaty Act (16 USC 703-711). A January, 2001 Executive Order requires agencies to ensure that environmental analyses evaluate the effects of federal actions and agency plans on migratory birds, with emphasis on species of concern. Species of concern include those listed under the Endangered Species Act, Forest Service Sensitive Species, and those identified as species of concern by the Montana Natural Heritage Program and the Montana Department of Fish, Wildlife and Parks (MNHP 2007, MFWP 2007). This discussion addresses potential effects of the Travel Plan alternatives on migratory bird species in general, including Forest Service Sensitive Species and Management Indicator Species.

***Affected Environment - Migratory Birds***

The following avian Forest Service Sensitive Species are present on the District: American peregrine falcon, bald eagle, black-backed woodpecker, blue-gray gnatcatcher, Harlequin duck, loggerhead shrike, and Northern goshawk. The following birds are Management Indicator Species on the District: Northern goshawk (also a Forest Service Sensitive Species), ruffed grouse, Bullock’s oriole, yellow warbler, ovenbird, spotted towhee, Brewer’s sparrow, golden eagle, and merlin. It is difficult to

### **Chapter 3: Affected Environment and Environmental Consequences**

address effects to migratory bird species collectively, since travel management actions can have adverse effects on some species, while being neutral or benefiting others. However, it would not be practical to attempt to address all migratory bird species separately. Therefore, the migratory bird discussion addresses effects of travel management actions on bird species and habitat in general, including that for sensitive and management indicator species, and resident species Northern goshawk and ruffed grouse.

Migratory bird species are a very diverse group and thus occupy all types of habitat available on the District, including lakes, streams, wetlands, riparian areas, grasslands, shrub lands, deciduous forest, coniferous forest, mixed forest, recently burned forest, alpine tundra, rock outcrops, talus, and sheer cliff walls. Many migratory bird species use habitat on the District as breeding grounds, while others breed in more northern climes and winter here. Some species are habitat specialists and are relatively restricted to certain cover types such as wetlands, riparian, forest interior or cliff habitat. Others are habitat generalists and can occupy a wide variety of cover types. Some bird species are extremely sensitive to habitat modifications and human disturbance, particularly in breeding areas, while others are much more tolerant of human intrusions, and might actually benefit from habitat modifications resulting from human activities.

#### **Habitat Alteration**

Travel management can affect habitat fragmentation by dissecting contiguous vegetation types with road and trail corridors. Fragmentation effects have been reported to impact bird species in riparian habitat and grass/shrub lands (Joslin and Youmans 1999), but most of the attention to this issue has been focused on fragmentation of forest habitat.

Road and trail corridors through continuous forest habitat can lead to increased nest predation rates since smaller forest patches may be easier for predators to penetrate, and roads and trails provide travel corridors for predators to access forest interior from nearby open habitat (Joslin and Youmans 1999, Askins 1994).

Road and trail corridors are relatively permanent features on the landscape, and can result in forest fragmentation by creating permanent openings in the forest canopy. Since road and trail corridors remain in the same location for many years, they can become learned features used by multiple generations of predatory and/or parasitic species (Askins 1994).

Rich et al (1994) studied the impacts of forest fragmentation associated with cleared road corridors on bird species in southern New Jersey. They found significantly greater relative abundance of forest interior bird species in edge habitat along narrow (approximately 8 m or 26 ft wide) unpaved forest roads than along wider (16 m or 53 ft wide) paved secondary roads. No significant differences in forest interior bird species abundance was found between narrow unpaved Forest road edges and forest interior habitat. Based on these findings, they concluded that forest interior nesters did not perceive a difference between forest interior habitat and edge habitat along unpaved forest roads. However, although most forest interior nesting species did not appear to avoid edge habitat along paved or unpaved forest road corridors, there were differential rates of nest predation and brood parasitism along varying widths of road corridors, suggesting that some corridors, particularly wider corridors with mowed edges, may be creating ecological traps for some migratory species of forest interior nesting songbirds.

Hutto et al. (1995) examined the rate of bird detections between on-road and off-road point counts in Montana. The majority of all species detected were found in both on-road and off-road points. However, points along roads less than 10 m (33 ft) wide did not show a difference in number of species detected from off-road points, whereas point counts along wider roads detected significantly more bird species than found in corresponding off-road points. Most species detected in the on-road points were those that typically forage in forest openings and shrubby habitat often present along road corridors. Those species detected in greater proportions in off-road points were forest interior associates. The most notable differences in number of species detected for on-road and off-road points occurred in forested cover types, with closed canopy forest showing the greatest difference, followed by open forest, and then early succession forest types.

Corridor width appears to influence bird species composition and associated nest predation and parasitism rates along roadways. Studies that specifically addressed the fragmentation impacts of road corridors on bird species (Rich et al. 1994, Askins 1994 and Hutto et al. 1995) generally reported that narrow (8-10 m, 26-33 ft) road corridors had few notable impacts on nesting bird species, whereas wider corridors, particularly where shoulders were maintained with mowing, had more notable effects associated with nest predation and brood parasitism. Roadside vegetation on the Forest is periodically managed through brush removal, but only the high use roads receive treatment, and only when the need arises (i.e., there is no set schedule for brush removal). Unpaved Forest road edges are rarely ever mowed, and therefore do not typically provide the type of grassy roadside vegetation preferred by cowbirds and some edge-associated nest predators.

#### **Disturbance**

The presence of travel facilities on the landscape generally affects bird species through habitat modification and associated impacts discussed above. The presence of humans using travel facilities typically affects birds through disturbance mechanisms. Knight and Gutzwiller (1995) stated: *“human occupation and activity are clearly and directly correlated with declines in breeding populations of birds.”* Human disturbance associated with travel management can elicit both physiological and behavioral responses from birds, which can affect reproductive success and survival.

Forman et al. (2003) reported that breeding birds seem to be affected by noise disturbance associated with traffic on roads and trails. Songbirds appear to be sensitive to very low noise levels. The noise level that population densities of woodland birds declined at averaged 42 decibels (dB), with a density decline occurring at 35 dB for the most sensitive woodland species. For grassland species, population densities declined when noise levels reached an average of 48 dB, with a decline occurring at 43 dB for the most sensitive species (Foreman and Alexander 1998). While most studies have shown grassland and forest birds to appear adversely affected by traffic noise, other studies have found most species to be neutral or to increase in numbers (Kaselloo and Tyson 2004).

Although noise associated with human travel is certainly a disturbance factor that can influence bird behavior, birds are able to adapt and habituate more quickly to mechanical (or motorized) noise than to human presence (Knight and Gutzwiller 1995). Therefore, non-motorized use on and off trails may be a more severe disturbance factor for some birds than motorized travel restricted to designated routes.

**3.3.2.18 Environmental Consequences – Migratory Birds**

***Direct and Indirect Effects***

**Effects Common to All Alternatives**

Most of the habitat alteration (e.g. modification, loss and fragmentation) associated with District travel management has already occurred. The consequences of past habitat change are likely beneficial for some bird species and detrimental to others.

**Alternative A**

Of the four Alternatives considered, Alternative A represents a maximum for both habitat alteration effects and disturbance impacts to migratory bird species. At a route density of 0.88 mi/sq mi, Alternative A would contain an overall higher motorized travel route density as well as total motorized route miles on the District. Adverse effects would be greatest on bird species susceptible to changes in habitat and to human disturbance.

**Alternative B, No Action, and Alternative B Modified**

Average motorized route density across the District would be 0.72 to 0.75 mi/sq mi for Alternatives B, No Action, and Alternative B Modified. The total number of motorized route miles would be similar for these three alternatives. Adverse effects to susceptible bird species would therefore be essentially the same, but slightly less than under Alternative A.

**Alternative C**

The total motorized route miles and average motorized route density (0.60 mi/sq mi) for the District would be lowest under Alternative C. Thus, adverse effects to susceptible bird species would be lowest under this alternative.

***Cumulative Effects – Migratory Birds***

It is difficult to address cumulative effects to migratory bird species collectively since various management actions can have adverse effects on some species, while having no effect or benefiting others. It would not be practical to attempt to address all species individually. Therefore, this section summarizes cumulative effects of land uses to bird species in general, focusing on activities considered to have the greatest impacts on birds.

Timber harvest and fuel reduction projects on the District have involved removal of understory vegetation such as shrubs, young conifers and lower tree branches, as well as removal of mature trees. Such manipulation of habitat components can influence survival and reproductive rates of migratory bird species by altering cover, forage and predator/prey relationships. Changing habitat structure through fuel reduction projects could ultimately influence bird species composition in treated areas (USDA Forest Service. 2006.)

Large-scale wildfires and human-caused fires have altered bird habitat. Most bird species, native to this area, are adapted to our fire dependent ecosystem. Large-scale high intensity burns are largely responsible for maintaining natural forest succession patterns and providing habitat diversity. Lightning-caused fires typically occur mid to late summer when most young birds are fledged and are capable of rapid and prolonged flight to escape wild fire. Human-caused fire can occur any time of year, and prescribed fires on the District are often planned for spring-time ignition in order to use high

fuel moisture levels, standing water and/or snow to help contain fire within prescribed burn units. Spring burns occur during the nesting season when birds are vulnerable, and could result in reproductive failure for some individuals.

Fire suppression has increased the proportion of mature forest on the landscape, potentially to the detriment of some grass and shrub nesting bird species. Natural fire regimes are responsible for maintaining forest succession patterns and providing habitat diversity. However, past fire suppression efforts have resulted in unnatural levels of fuel buildup, which is now having the effect of producing proportionately more catastrophic wild fires, and consequently having severe impacts on native habitat.

Livestock grazing can affect migratory birds in a number of ways, such as destruction or disturbance of ground and shrub nests, removal of ground cover, and attraction of cowbirds. Grazing on the District has led to degradation of bird habitat in some areas, particularly in certain riparian habitats. However, improved grazing standards are helping reduce negative effects.

Construction, maintenance, and use of campgrounds, picnic areas, and other developed recreation sites have altered the vegetation at those sites. Reduction in vegetation, particularly riparian shrubs, has likely reduced key nesting habitat for some bird species. Dispersed recreation sites have likely resulted in similar impacts as developed campgrounds.

Projected effects of reasonably foreseeable programs and activities have potential for both positive and negative cumulative effects to migratory birds and their habitat. Unmanaged recreation, invasive species, unnatural fuel buildup, and loss of open space are four major ecological threats recognized by public land management entities. Generally speaking, traditional land management practices are trending toward more ecologically sensitive programs. Accordingly, management practices are being redesigned to have less negative impacts on the land, while still allowing for the maximum spectrum of land uses within the capability of resources. On the other hand, private development is occurring adjacent to the Forest boundary, resulting in permanent habitat loss and greater potential for direct mortality than most actions predicted to occur on public land (USDA Forest Service. 2006).

#### ***Consistency with Laws, Regulations, and Policy***

Management of migratory bird species and their habitats are governed by a wide variety of authorities. Most direction regarding conservation of these species falls under the umbrella of the Migratory Bird Treaty Act (16 USC 703-712) and an associated Presidential Executive Order. Under this Act, which implements various treaties and conventions for the protection of migratory birds, it is unlawful to take, kill or possess any migratory birds, except as regulated by authorized hunting programs. Executive Order 13186 directs Federal agencies whose actions have a measurable negative impact on migratory bird populations to incorporate migratory bird conservation into planning processes and take reasonable steps that include restoring and enhancing habitat. The proposed District Travel direction has taken migratory bird conservation issues into account through effects analyses, and thus is consistent with the above direction.

#### **3.3.2.19 Conclusion - Wildlife**

Wildlife effects analysis was conducted based on regulatory framework for threatened, endangered, sensitive, management indicator, and other species of concern. Conservation strategy standards and

**Chapter 3: Affected Environment and Environmental Consequences**

guidelines and literature-based recommended guidelines were also considered. Analysis for lynx was based on motorized route density. Analysis for grizzly bears and wolverine were based on secure habitat availability. Analysis for elk was based on both motorized route density and secure habitat. Relative comparisons of available habitat and/or motorized route density were also conducted between alternatives for species and groups lacking conservation strategies, standards, or guidelines. The following outlines effects determinations for wildlife species.

**Table 3-51. Wildlife Effects Determinations**<sup>28</sup>

Species Name	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
<b>Threatened, Endangered, and Proposed Species</b>					
Canada Lynx (Threatened)	NLAA	NLAA	NLAA	NLAA	NLAA
Gray Wolf (Experimental nonessential)	No Jeopardy	No Jeopardy	No Jeopardy	No Jeopardy	No Jeopardy
<b>Forest Service Sensitive Species</b>					
American peregrine falcon ( <i>Falco peregrinus anatum</i> )	MIIH	NI	NI	MIIH	NI
Baird’s sparrow ( <i>Ammodramus bairdii</i> )	NI	NI	NI	NI	NI
Bald Eagle ( <i>Haliaeetus leucocephalus</i> ) <sup>29</sup>	NI	NI	NI	NI	NI
Black-backed woodpecker ( <i>Picoides arcticus</i> )	NI	NI	NI	NI	NI
Blue-gray gnatcatcher ( <i>Poliopitila</i> )	MIIH	MIIH	MIIH	MIIH	MIIH
Burrowing owl ( <i>Athene cunicularia</i> )	NI	NI	NI	NI	NI
Greater sage grouse ( <i>Centrocercus urophasianus</i> )	NI	NI	NI	NI	NI
Grizzly Bear ( <i>Ursus arctos</i> ) <sup>30</sup>	MIIH	MIIH	MIIH	MIIH	MIIH
Harlequin duck ( <i>Histrionicus histrionicus</i> )	NI	NI	NI	NI	NI
Loggerhead Shrike ( <i>Lanius ludovicianus</i> )	NI	NI	NI	NI	NI
Long-billed curlew ( <i>Numenius americanus</i> )	NI	NI	NI	NI	NI
Northern goshawk ( <i>Accipiter gentilis</i> )	MIIH	MIIH	MIIH	MIIH	MIIH
Long-eared myotis ( <i>Myotis evotis</i> )	MIIH	BI	MIIH	MIIH	BI
Long-legged myotis ( <i>myotis volans</i> )	MIIH	BI	MIIH	MIIH	BI
Pallid bat ( <i>Antrozous pallidus</i> )	MIIH	BI	MIIH	MIIH	BI
Spotted bat ( <i>Euderma maculatum</i> )	MIIH	BI	MIIH	MIIH	BI
Townsend’s big-eared bat ( <i>Corynorhinus townsendii</i> )	MIIH	BI	MIIH	MIIH	BI
Black-tailed prairie dog ( <i>Cynomys ludovicianus</i> )	MIIH	NI	MIIH	MIIH	NI

<sup>28</sup> Options for effects determinations are: For federally listed species: NE = No effect; NLAA = May effect – not likely to adverse affect; LAA = May effect – likely to adversely affect; and BE = Beneficial effect. For Forest Service sensitive species: NI = No impact; MIIH = May impact individuals but is not likely to cause a trend to Federal listing or loss of viability; WIFV = Likely to result in a trend to Federal listing or loss of viability; and BI = Beneficial impact. For management indicator species: + = Positive effect; 0 = Neutral effect; and - = Negative effect. For other species of concern: NE = No effect.

<sup>29</sup> Bald eagle delisted effective August 8, 2007 and subsequently managed as a Forest Service Sensitive Species.

<sup>30</sup> Grizzly bear delisted effective April 30, 2007 and subsequently managed as a Forest Service Sensitive Species as directed in “Final Conservation Strategy for the Grizzly Bear in the Yellowstone Ecosystem, Interagency Grizzly Bear Study Team, March 2003.”

**Table 3-51. Wildlife Effects Determinations**<sup>28</sup>

Species Name	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
White-tailed prairie dog ( <i>Cynomys leucurus</i> )	NI	NI	NI	NI	NI
Wolverine ( <i>Gulo gulo</i> )	NI	NI	NI	NI	NI
Greater short-horned lizard ( <i>Phrynosoma hernandesi</i> )	NI	NI	NI	NI	NI
Milk Snake ( <i>Lampropeltis triangulum</i> )	NI	NI	NI	NI	NI
Western hog-nosed snake ( <i>Heterodon nasicus</i> )	NI	NI	NI	NI	NI
<b>Management Indicator Species</b> <sup>31</sup>					
Northern Goshawk ( <i>Accipiter gentilis</i> ) (H)	0	0	0	0	0
White-tailed deer ( <i>Odocoileus virginianus</i> ) (H, K)	0	0	0	0	0
Ruffed grouse ( <i>Bonasa umbellus</i> ) (H)	0	0	0	0	0
Western kingbird ( <i>Tyrannus verticalis</i> ) (H)	0	0	0	0	0
Bullock's (Northern) oriole ( <i>Icterus bullockii</i> ) (H)	0	0	0	0	0
Yellow warbler ( <i>Dendroica petechia</i> ) (H)	0	0	0	0	0
Oven bird ( <i>Seiurus aurocapillus</i> ) (H)	0	0	0	0	0
Spotted (Rufous-sided) towhee ( <i>Pipilo maculatus</i> ) (H)	0	0	0	0	0
Brewer's sparrow ( <i>Spizella Breweri</i> ) (H)	0	0	0	0	0
Sharp-tailed grouse ( <i>Tympanuchus phasianellus</i> ) (H, K)	0	0	0	0	0
Elk ( <i>Cervus canadensis</i> ) (K)	0	0	+	0	0
Golden eagle ( <i>Aquila chrysaetos</i> ) (K)	0	0	0	0	0
Merlin ( <i>Falco columbarius</i> ) (K)	0	0	0	0	0
Mule deer ( <i>Odocoileus hemionus</i> ) (K)	0	0	+	0	0
Bighorn sheep ( <i>Ovis Canadensis</i> ) (K)	0	0	0	0	0
Pronghorn antelope ( <i>Antilocapra Americana</i> ) (K)	0	0	0	0	0
<b>Other Species of Concern</b>					
Mountain Goat	NE	NE	NE	NE	NE
Marten	NE	NE	NE	NE	NE
Fisher	NE	NE	NE	NE	NE

*Threatened, endangered, sensitive, Custer Forest management indicator species and other species of concern.* Regarding threatened, endangered, sensitive, and Custer Forest management indicator species, all alternatives are consistent with the National Forest Management Act (36 CFR 219.19) which directs federal agencies to manage habitat to provide for viable populations of all native and desired non-native fish and wildlife species. All alternatives are also consistent with Forest Service

<sup>31</sup> H = Habitat Indicator Species; K = Key Species

**Chapter 3: Affected Environment and Environmental Consequences**

Manual (FSM 2672.1) direction for management of sensitive species which states that these species must receive special management emphasis to ensure their viability and to preclude trends toward endangerment that would result in the need for Federal listing. The following table summarizes the effects determination.

**Table 3. 52. Effects Determination Summary**

Indicator	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
<b>Threatened or Endangered Species</b>					
Number of species with No Jeopardy	1	1	1	1	1
Number of species with potential to effect, but not likely to adversely affect.	1	1	1	1	1
Number of species with potential to effect, and likely to adversely affect	0	0	0	0	0
<b>Sensitive Wildlife Species</b>					
Number of Species with Beneficial Impact	0	5	0	0	5
Number of Species with No Impact	14	15	15	14	15
Number of Species with potential to effect individuals or Habitat but will not Likely Contribute to a trend towards Federal Listing or Loss of Viability to the Population or Species	9	3	8 <sup>32</sup>	9	3
Number of Species likely to result in a trend to Federal listing or loss of viability	0	0	0	0	0
<b>Management Indicator Species</b>					
Number of Species with Positive Effects	0	0	2	0	0
Number of Species with Neutral Effects	16	16	14	16	16
Number of Species with Negative Effects	0	0	0	0	0
<b>Other Species of Concern</b>					
Number of Species with No effect	3	3	3	3	3

*Canada Lynx.* All alternatives are consistent with the laws, regulations, policy, and Federal, Regional, and State direction, the Custer National Forest Management Plan, the Canada Lynx Conservation and Assessment Strategy, and the Northern Rockies Lynx Management Direction. Of these regulatory directions, the latter two documents specifically address Forest roads relative to lynx conservation and recovery.

The anticipated direct and indirect effects to lynx, and their habitats, from any of the alternatives are small. No alternative would exceed the Canada Lynx Conservation Assessment and Strategy programmatic guideline for Forest backcountry roads and trails of a maximum 2.0 mi/sq mi road density. Average open motorized route density in lynx habitat across the Beartooth District would be 0.2 mi/sq mi under Alternative B, Alternative C and Alternative B Modified, and 0.3 mi/sq mi under Alternative A and No Action. No alternatives would exceed the Canada Lynx Conservation Assessment and Strategy programmatic guideline for Forest backcountry roads and trails of a maximum 2.0 mi/sq mi road density.

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<sup>32</sup> Although Alternative C has fewer motorized routes than the other alternatives, it does not provide the same level of protection to some sensitive species due to lower amount of area receiving seasonal restrictions. Therefore, there is potential to effect individuals or Habitat but will not Likely Contribute to a trend towards Federal Listing or Loss of Viability to the Population or Species on more sensitive species in Alternative C than in Alternatives B or B Modified.

*Gray Wolf.* All alternatives are consistent with the laws, regulations, policy, and Federal, Regional, and State direction, the Custer National Forest Management Plan, and the Montana Gray Wolf Conservation and Management Plan. None of these regulatory directions specifically address Forest roads relative to wolf conservation and management.

To indicate potential effects to gray wolf displacement, avoidance, and recolonization changes in motorized route density from No Action are assessed. In the Beartooth and Pryor Units, Alternative A would increase open motorized route density over No Action by 0.09 and 0.30 mi/sq mi, respectively. This is the highest motorized route density of the alternatives. In the Beartooth Unit, Alternatives B and B Modified would increase open motorized route density over No Action by 0.07 and 0.06 mi/sq mi, respectively. In the Pryor Unit, Alternatives B and B Modified would each decrease open motorized route density over No Action by 0.10 mi/sq mi. In the Beartooth and Pryor Units, Alternative C would increase open motorized route density over No Action by 0.05 and 0.35 mi/sq mi, respectively. This is the lowest motorized route density of the alternatives.

*Grizzly Bear.* All alternatives are consistent with the laws, regulations, policy, and Federal, Regional, and State direction, the Custer National Forest Management Plan, and the Conservation Strategy for Grizzly Bear in the Yellowstone Ecosystem (ICST 2003; updated 2007). The habitat and conservation standards, described in the Conservation Strategy, have formally been incorporated into the Custer National Forest Plan. It provides the direction for managing grizzly bear habitat on the National Forest.

Within the grizzly bear Primary Conservation Area (PCA), 96% of habitat would be secure under all alternatives. This is consistent with the Grizzly Bear Conservation Strategy standard to maintain secure habitat at or above 1998 levels. Availability of secure biologically suitable habitat for grizzly bears outside the PCA would effectively be the same between the alternatives, 91% in Alternative A and 92% in the other four alternatives. In addition, the availability of secure biologically unsuitable habitat outside the PCA would effectively be the same under Alternatives B (59%), No Action (57%), and Alternative B Modified (58%); lowest under Alternative A (52%); and greatest under Alternative C (64%). The availability of biologically unsuitable habitat is pertinent because grizzly bears have been documented in such habitat on the Beartooth District within the last five years.

*Wolverine.* All alternatives are consistent with the National Forest Management Act (36 CFR 219.19) which directs federal agencies to manage habitat to provide for viable populations of all native and desired non-native fish and wildlife species. All alternatives are also consistent with Forest Service Manual (FSM 2672.1) direction for management of sensitive species which states that these species must receive special management emphasis to ensure their viability and to preclude trends toward endangerment that would result in the need for Federal listing.

Open motorized route density in wolverine habitat under all alternatives would be characterized as low ( $\leq 0.7$  mi/sq mi). The percent of wolverine habitat available as refugia would be the lowest under Alternatives A and No Action (66%), and effectively the same under Alternatives B and C (74%), and Alternative B Modified (71%).

*Bighorn Sheep.* All alternatives are consistent with the following direction on occupied bighorn sheep range. The Custer National Forest Management Plan contains relevant direction for management of

### Chapter 3: Affected Environment and Environmental Consequences

big game populations. The protection measure for key wildlife species, including big game species, relative to travel management planning states, “Where necessary to protect wildlife values, access and/or traffic will be restricted in key wildlife habitats during critical periods.”

Alternative C would provide the greatest acreage of bighorn sheep escape terrain in both the Beartooth and Pryor Units, 5970 and 6138 acres respectively, and in turn, Alternative A would provide the least acreage, 5543 and 3920 acres. Alternatives B, No Action, and Alternative B Modified would fall in between, with 5904, 5612, and 5809 acres respectively in the Beartooth Unit, and 4926, 4388, and 5129 respectively in the Pryor Unit. Bighorn sheep winter range is currently utilized only on the Beartooth Unit, where the No Action Alternative would provide the greatest availability (10,483 acres) and Alternative A the least (10,076 acres). Alternatives B and C would be similar (10,258 and 10,288 acres respectively), and Alternative B Modified would provide 10,129 acres.

*Elk and Deer.* Because of the large overlap in habitat between elk and deer, the elk analysis serves as a surrogate for mule deer and white-tailed deer and impacts of travel management on the District are expected to be very similar for these three species.

All alternatives are consistent with the Custer National Forest Management Plan which contains relevant direction for management of big game populations. The goal for key wildlife species, including big game species, relative to travel management planning states, “Where necessary to protect wildlife values, access and/or traffic will be restricted in key wildlife habitats during critical periods.” Key habitats are described in Appendix VII of the Forest Plan and largely occur in Management Area C relative to core elk winter range where seasonal motorized use restrictions apply.

Hunting season vulnerability was assessed using motorized route density and secure elk habitat. Under all alternatives, the Beartooth Unit open motorized route densities in elk habitat would range from 0.37 to 0.47 mi/sq mi. This is within the recommendation to manage roads at <1.0 mi/sq mi for elk habitat. Secure elk habitat would range from 64% to 69%, which is above the recommended 30% minimum.

On the Pryor Unit, Alternatives A and No Action would have the highest open motorized route density relative to wolves (1.5 mi/sq mi) and in elk habitat (1.49 and 1.44 mi/sq mi, respectively), plus would provide the lowest elk security cover (22% and 23%, respectively). Open motorized route density for Alternatives B and Alternative B Modified are 1.16, and 1.27 mi/sq mi, respectively and approach the density recommendation of 1 mi/sq mi. Secure elk habitat would range from 23% to 26%, which is below the recommended 30% minimum. Alternative C, with open motorized route density of 0.69 mi/sq mi in elk habitat, and security cover of 37%, and would fall within the recommendations for elk.

*Wildlife in General.* All alternatives are consistent with the Custer National Forest Management Plan and Forest Service Manual direction. The wildlife goal in the Custer National Forest Management Plan is to “manage and/or improve key wildlife and fisheries habitats, to enhance habitat quality and diversity, and to provide wildlife and fish-oriented recreation opportunities.” Forest Service Manual 2672.4 requires review of “all Forest Service planned, funded, executed, or permitted programs and activities for possible effects on endangered, threatened, proposed, or sensitive species.”

“Core” habitat available for wildlife in general in the Beartooth Unit would range from 82% to 83%,

effectively the same for all alternatives. On the Pryors Unit, availability of “core” habitat would be the greatest under Alternative C (35%) and the least under Alternative A (16%). The No Action alternative would provide 22% “core”, and availability would be similar under Alternatives B and B Modified (25% and 27% respectively).

All alternatives have taken migratory bird conservation issues into account through effects analyses, and thus are consistent with the following direction. Management of migratory bird species and their habitats are governed by a wide variety of authorities. Most direction regarding conservation of these species falls under the umbrella of the Migratory Bird Treaty Act (16 USC 703-712) and an associated Presidential Executive Order. Under this Act, which implements various treaties and conventions for the protection of migratory birds, it is unlawful to take, kill or possess any migratory birds, except as regulated by authorized hunting programs. Executive Order 13186 directs Federal agencies whose actions have a measurable negative impact on migratory bird populations to incorporate migratory bird conservation into planning processes and take reasonable steps that include restoring and enhancing habitat.

### 3.3.3 SOILS

#### *Overview of Changes from the Draft to the Final EIS*

The following changes to this section were made in response to public comments:

- In response to public comment, the erosion hazard rating for the existing condition is broken out for the Beartooth and Pryor Mountains areas.
- The Soil Survey of Carbon County (USDA SCS, 1975) was used to describe the landforms and determine erosion hazard in the Pryor Mountains. The draft Terrestrial Ecological Unit Inventory (TEUI) currently under way (data on file in the Supervisor’s Office, Billings, MT) was used to supplement the LTAs and help describe the landforms and ratings in the Beartooth Mountains, allowing all roads and trails to be included in the erosion hazard rating analysis.
- The county soil survey and draft TEUI were used to analyze the effects of the Alternatives.
- The discussion on landforms was removed from the FEIS, though erosion hazard rating information remains.
- A section was added on Soil Crusts (see specialist report in the project file) in response to public comment.

#### 3.3.3.1 Affected Environment – Soils

The project area is located in the Beartooth and Pryor Mountains. The District is part of the Yellowstone Highlands and Bighorn Mountains Section<sup>33</sup>. The Soil Survey of Carbon County Area, Montana (USDA SCS, 1975) was used to describe the landforms and determine erosion hazard ratings in the Pryor Mountains. Information from Landtype Associations (LTAs) (Ford et al, 1997) (<http://forest.moscowfsl.wsu.edu/smp/solo/GeoPath/lta/index.php>) were supplemented by the draft Terrestrial Ecological Unit Inventory (TEUI) currently under way (data on file in the Supervisor’s

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<sup>33</sup> The Beartooth Mountains are part of the Beartooth Front Subsection (M331Ar), The Beartooth Mountain Subsection (M331Ah), and the Absaroka-Gallatin Mountain Subsection (M331Aa) which are within the Yellowstone Highlands Section (M331A). The Pryor Mountains are part of the Bighorn Mountains, Sedimentary Subsection (M331B) which is within the Bighorn Mountains Section.

### Chapter 3: Affected Environment and Environmental Consequences

Office, Billings, MT) to describe the landforms and determine erosion hazard ratings in the Beartooth Mountains.

Soils range from shallow to deep, are coarse to fine textured and minimally developed to well developed. This stratification of Pryor and Beartooth Units is useful because geology identifies the kind of material that soils have developed from and the landforms identify the general topography where the soils are located. Both of these infer much about the physical soil attributes which are important for predicting erosion and soil productivity impacts from surface disturbance. Soil texture, coarse fragment size and content, depth, slope, and water holding ability are correlated with these stratifications. The youthful nature of mountain soils makes the correlation between geology and soil physical attributes especially useful.

There are 15 Landtype Associations (LTAs), and multiple TEUI and soil units that contain roads and trails in the project area. The LTA units are documented and described in “Landtype Associations of the Northern Region, 1997: A First Approximation”, (Ford, et al. 1997). The Carbon County Soil Survey area is available from the NRCS, as well as on the web (<http://nris.state.mt.us/nrcs/soils/datapage.html> or <http://www.mt.nrcs.usda.gov/soils/mtsoils/official.html>)

Erosion risk ratings are provided from the county soil survey, draft TEUI, LTAs and other publications (on file in the project record). They are estimates of the potential for erosion after soil disturbance and are based on the inherent soil resistance to erosion and the erosive forces acting upon them. Low hazard implies little to no potential for erosion, moderate hazard implies potential for erosion but implementing normal BMP practices are usually effective at controlling erosion, and a high hazard implies that considerable effort is necessary to control erosion, generally at a higher cost. In some cases, effective erosion control is not possible for roads and trails on high erosion risk soils.

These ratings do not mean that management (i.e. roads and trails) should not occur on soils with a specific rating but rather what types of mitigation and management are needed to minimize the impact.

The following tables display the miles of road in each erosion hazard for the different jurisdictions in the project area.

**Table 3-53. Summary of Road and Trail Miles by Water Erosion Hazard Rating for the Existing Condition in the Beartooth Mountains Area.**

Jurisdiction and System Status	Low	Medium	High	Very High	Grand Total
National Forest System Road	85.50	39.41	35.49	9.89	170.41
National Forest System Trail- Motorized	1.75	2.84	0.42	3.22	8.22
National Forest System Trail – Non-Motorized	124.14	76.14	63.69	11.04	275.81
Non System Trail	4.03	1.94	5.09	0.06	11.35
Non-Forest Service Routes	37.42	20.29	11.03	5.74	74.57
Grand Total	252.84	140.63	115.72	29.95	540.36

Note: Small differences in mileage figures between this and other tables are due to GIS analysis and rounding errors.

**Table 3-54. Summary of Road and Trail Miles by Water Erosion Hazard Rating for the Existing Condition in the Pryor Mountains Area.**

Jurisdiction and System Status	Low	Medium	High	Rock Outcrop and Other	Grand Total
National Forest System Road	0.11	78.92	77.62	15.10	171.74
National Forest System Trail – Non-Motorized	-	-	1.11	0.26	1.37
Non-Forest Service Routes	0	15.11	16.58	6.67	38.36
Grand Total	0.11	94.03	95.31	22.03	211.47

Note: Small differences in mileage figures between this and other tables are due to GIS analysis and rounding errors.

**Soil Productivity**

The Region 1 soil quality standards apply to lands where vegetation and water resource management are the principal objectives, that is, timber sales, grazing pastures or allotments, wildlife habitat, and riparian areas (USDA Forest Service, 1999). Roads and trails are a “dedicated use” for lands that comprise the road prism and right of way. The affected land is managed for transportation uses and is not managed for soil and vegetation productivity. Therefore, the Region 1 soil quality standards do not apply to this analysis. However, the decision made in this project will affect the amount of land in productive capability. By adding routes to the system and designating or not designating a route for specific use might have an impact on other projects and that projects ability to meet Regional policy regarding soil quality.

Roads and trails do have an impact on soil productivity, especially when users veer off the established travelway to bypass wet or muddy sections of the road or trail, bypass switchbacks, and create shortcuts. User created routes eliminates the protective vegetative cover, compacts the exposed soil surface, generates and concentrates runoff, and causes accelerated soil erosion. The travel surface is mostly removed from the productive soil base and productivity is reduced on the cut slopes and fill slopes.

Some impacts are normally accepted as a necessary cost to provide access to public lands, as long as most impacts are limited to the immediate area of disturbance, the road or trail can be maintained at a reasonable cost, and permits use as long as it’s needed. Implementing Best Management Practices (BMPs) are intended to meet these objectives. There are some unclassified roads and trails that are not on the transportation system, as well as those that are on the system that are causing soil impacts beyond what is normally accepted because they fail to meet the standards of BMPs. Some of the reasons they may not meet standards are improper location, inadequate drainage to prevent accelerated erosion and deposition, or high maintenance costs. Often this leads to pioneering new routes or trails to get around sections that are difficult to traverse. This leads to more soil that is exposed, compacted, and eroded. The end result is an increasing amount of soil disturbance and associated impacts, both to the road and off-site.

Roads and trails impact and disrupt the natural function of the soil resource, and are long-term commitments to that specific use. This is considered an irretrievable commitment of the soil resource for as long as the road or trail exists. Soil function and productivity on roads and trails can be recovered and the Forest Service has considerable experience in rehabilitating old roads with fairly successful results (Kolka and Smidt, 2004).

***Soil Crusts***

Information on distribution and extent of soil crusts in the area is generally lacking. There are no references to soil crusts in the Soil Survey of Carbon County, for the Pryor Mountains area. Soil crusts are commonly found in more arid regions where vegetative cover is generally sparse, typically in semiarid and arid environments throughout the world. Areas in the United States where crusts are a prominent feature of the landscape include the Great Basin, Colorado Plateau, Sonoran Desert, and the inner Columbia Basin. (<http://www.soilcrust.org/crust101.htm>). Because of the environmental factors soil crusts are probably very limited in the Beartooth Mountains. Biological soil crusts occurrence on National Forest Lands in the Pryor Mountains are probably also fairly limited to areas with low vegetative cover (high bare ground) and lower elevations.

Soil crusts most likely do not occur on existing roads and trails due to type and level of existing disturbance. Off-road travel by motor vehicle is currently prohibited except for dispersed camping within 300 feet of the road. The majority of dispersed campsites currently have some level of disturbance; soil crusts are probably not very prevalent in these areas. These dispersed campsites are most likely not located in the dryer open areas in the area but are more generally found in areas with higher vegetative cover, some shade, and at higher elevations. (Also, see the section on vegetation and sensitive plants for additional discussion on dispersed campsite availability.) Generally, soil crusts will not be affected by designating roads and trails, since no new construction is being considered at this time.

**3.3.3.2 Environmental Consequences - Soils**

***Direct and Indirect Effects***

**Effects Common to All Alternatives**

Soil effects resulting from development and use of forest roads and trails have been fairly well documented (Gucinski, et al, 2001, Wilson and Seney, 1994, Weaver and Dale, 1978). Effects from roads and trails can vary by standard and condition.

Soil effects from roads and trails include removal of vegetative cover, compaction, degradation of soil structure, decreased infiltration and water holding capacity, reduction in soil organic material, accelerated erosion, and potential mass failure including landslides or slumps. These types of impacts can occur on motorized or non-motorized roads and trails. Erosion tends to be least on roads and trails with flat grades and more severe on roads and trails with steeper gradients.

Soil crusts probably do exist in the project area though the extent and distribution are not well known. There might be impacts to soil crusts mainly due to off-trail travel. Off-trail travel (i.e. “bushwacking”) by stock, foot, and motorized travel could have a negative impact on soil crusts where they exist.

Roads will typically have a greater magnitude of impacts on soils, compared to trails, as cut and fill slopes normally cause greater disturbance on areas adjacent to the road tread. On average the road tread on forest roads is typically around 12 to 15 feet wide. On steep slopes the total area of disturbance can be twice the width of the tread, or around 24 to 30 feet wide. The magnitude and extent of soil impacts are generally the least on trails designed for non-motorized uses compared to

roads and motorized use trails. This is normally due to non-motorized trails not requiring large cut and fill slopes. The trail tread for non-motorized trails is usually designed to be 2 feet wide. Non-motorized trails affect a relatively narrow corridor, typically no more than 6 feet wide for the total area of soil disturbance. Trails designed for motorized uses are typically intermediate in magnitude and extent of soil impacts, compared to roads and non-motorized trails. Motorized trails generally require moderate cut and fill construction. The exact width of soil disturbance associated with motorized and non-motorized roads and trails in the analysis area has not been measured in the field.

**Effects Common to All Action Alternatives**

Effects on soils from roads vary by standard and condition. The area that roads and their associated disturbance occupy are removed from the productive soil base. Runoff from roads affects soil productivity by eroding soil from and adjacent to the road, and by depositing sediment on areas below the road. These effects are slight on well maintained, high standard roads. Other roads have more serious effects that tend to be localized on road segments where surface drainage is inadequate.

Roads that are not designated for public motorized use and for which no administrative use has been identified may be considered candidates for decommissioning or rehabilitation. These roads, with the exclusion of motorized traffic, should begin to revegetate and over time, continue to have improved soil productivity and eventually be brought back to the productive soil base. If these roads are identified for obliteration or rehabilitation, and which is then successfully implemented, the time frame in which these roads are brought back to the productive land base should be much more rapid.

Roads and trails that are closed to public motorized use should have reductions in erosion and runoff. Removing the disturbance should reduce the impact to soils gradually allowing revegetation and litter accumulation on the route surface.

Season of use designations will affect soils by reducing the likelihood of users creating additional disturbance to bypass wet or muddy areas. Season of use designations are established to help mitigate soil and erosion concerns by trying to ensure use when roads and trails are dry.

Comparisons of hazard ratings by alternative are found in the following Tables (Route Miles by Erosion Hazard Rating by Alternative).

**Table 3-55. Route Miles By Erosion Hazard Rating For The Different Alternatives In The Beartooth Unit.**

Designation	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
<b>Public Motorized</b>					
High/Very High	29.30	23.09	18.86	26.94	25.47
Medium	34.51	23.30	19.35	26.40	26.00
Low	94.30	85.83	71.36	77.58	84.58
<b>Public Non-motorized</b>					
High/Very High	72.22	76.25	75.89	72.19	72.24
Medium	78.00	81.51	81.52	75.19	78.01
Low	123.59	124.17	125.94	121.65	121.92
<b>Administrative</b>					
High/Very High	17.37	15.19	14.65	12.86	18.37
Medium	11.23	12.51	12.90	10.41	14.59

**Table 3-55. Route Miles By Erosion Hazard Rating For The Different Alternatives In The Beartooth Unit.**

Designation	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
Low	7.06	7.28	7.98	5.41	7.34
<b>Not Designated</b>					
High/Very High	6.13	8.48	7.85	13.03	8.75
Medium	11.55	17.97	21.46	23.23	16.58
Low	5.77	13.44	25.44	26.09	14.56

Note: Small differences in mileage figures between this and other tables are due to GIS analysis and rounding errors.

**Table 3-56. Route Miles By Erosion Hazard Rating For The Different Alternatives In The Pryor Unit**

Designation	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
<b>Public Motorized</b>					
High/Very High	81.26	56.89	31.42	66.89	58.04
Medium	19.38	8.82	7.92	13.35	10.39
Low	72.11	53.61	37.65	62.06	53.02
Other	19.38	8.82	7.92	13.35	10.39
<b>Public Non-motorized</b>					
High/Very High	1.10	1.50	1.50	1.10	1.50
Medium	-	-	-	-	-
Low	-	-	-	-	-
Other	0.25	0.25	0.25	0.25	0.25
<b>Administrative</b>					
High/Very High	2.11	5.78	14.00	0.01	3.88
Medium	3.56	8.94	11.21	0.67	7.87
Low	-	-	-	-	-
Other	0.31	0.71	0.98		0.71
<b>Not Designated</b>					
High/Very High	5.61	25.91	43.05	22.08	26.43
Medium	8.51	21.64	35.01	21.45	24.49
Low	-	0.10	0.10	-	0.10
Other	0.63	10.79	11.43	6.98	9.26

Note: Small differences in mileage figures between this and other tables are due to GIS analysis and rounding errors.

**Alternative A**

This alternative would have the greatest impact on soils for the action alternatives. This alternative would add 6 miles of routes for administrative use and 17 miles or routes for public motorized use on landforms with high erosion hazard compared to the No Action Alternative. This includes adding routes to the system, changes in designation, and addressing non-system routes.

This alternative would prohibit motorized travel on 38 miles of routes (11 miles on landforms with high erosion hazard), allowing vegetation to reestablish. This would reduce erosion and concentrated runoff from these sites. These areas would eventually be returned to productive capability. The seasonal closures for purposes of minimizing effects of motorized use during spring breakup (27 miles) would allow portions of roads and trails to dry out and reduce the chance of rutting and subsequent erosion. The percent of total routes designated for public use that have proposed seasons

of use is 8%.

There are approximately 3 miles of non-system trails being added to the system for non-motorized use and approximately 2 miles of roads that are being converted to non-motorized use. This should lead to an overall improvement in the soil condition in these general areas.

**Alternative B**

This alternative would add 8 miles of routes for administrative use and decrease by 13 miles the routes available for public motorized use on landforms with high erosion hazard compared to the No Action Alternative. This includes adding routes to the system, changes in designation, and addressing non-system routes.

This alternative would prohibit motorized travel on 100 miles of routes (34 miles on LTAs with high erosion hazard), allowing vegetation to reestablish. This would reduce erosion and concentrated runoff from these sites. The seasonal closures for purposes of minimizing effects of motorized use during spring breakup (91 miles) would allow portions of roads and trails to dry out and reduce the chance of rutting and subsequent erosion. The percent of total routes designated for public use that have proposed seasons of use is 34%. Pack and saddle stock restrictions will allow vegetation to reestablish and reduce effects to soils over time.

Changes in dispersed vehicle camping along the Main Fork of Rock Creek Road (#2421) will allow 28 sites heavily impacted by repeated use to gradually revegetate, which will lead to a reduction in compaction and improved infiltration and less erosion and runoff. The remaining dispersed sites will likely continue to receive heavy use. However, expansion of new sites in the Main Fork of Rock Creek would be restricted under this alternative.

There are approximately 4.5 miles of non-system trails being added to the system for non-motorized use and approximately 2 miles of roads that are being converted to non-motorized use. In addition there are over 7 miles of roads that would be changed from motorized use to non-motorized use. This should lead to an overall improvement in the soil condition in these general areas.

**Alternative C**

This alternative would add 16 miles of routes for administrative use and decrease by 43 miles the routes available for public motorized use on landforms with high erosion hazard compared to the No Action Alternative. This includes adding routes to the system, changes in designation, and addressing non-system routes.

This alternative would prohibit motorized travel on 144 miles of routes (50 miles on LTAs with high erosion hazard), allowing vegetation to reestablish. This would reduce erosion and concentrated runoff from these sites. The seasonal closures for purposes of minimizing effects of motorized use during spring breakup (44 miles) would allow portions of roads and trails to dry out and reduce the chance of rutting and subsequent erosion. The percent of total routes designated for public use that have proposed seasons of use is 21%. Pack and saddle stock restrictions will allow vegetation to reestablish and reduce effects to soils over time. Reducing access for dispersed vehicle camping will allow areas heavily impacted by repeated use to gradually revegetate, which will lead to a reduction in compaction and improved infiltration and less erosion and runoff.

### **Chapter 3: Affected Environment and Environmental Consequences**

There are approximately 4.5 miles of non-system trails being added to the system for non-motorized use and approximately 2 miles of roads that are being converted to non-motorized use. In addition there are over 11 miles of roads that would be changed from motorized use to non-motorized use. This should lead to an overall improvement in the soil condition in these general areas.

#### **No Action Alternative**

Existing low standard roads and trails would continue to erode and concentrate runoff and erosion at present rates. The seasonal closures for purposes of minimizing effects of motorized use during spring breakup (18 miles) would allow portions of roads and trails to dry out and reduce the chance of rutting and subsequent erosion. The percent of total routes designated for public use that have proposed seasons of use is 6%. Existing sites where soil erosion is a concern will continue to erode and contribute sediment. The area of soil productivity effects would continue to expand as new trail segments are developed to get around areas that are eroded. Off-site deposition of eroded material and soil erosion from roads and trails, and concentrated runoff would continue at existing or expanded rates.

#### **Alternative B Modified**

This alternative would add 9 miles of routes for administrative use and decrease by 11 miles the routes available for public motorized use on landforms with high erosion hazard compared to the No Action Alternative. This includes adding routes to the system, changes in designation, and addressing non-system routes.

This alternative would prohibit motorized travel on 100 miles of routes (35 miles on landforms with high erosion hazard and 41 miles on landforms with medium erosion hazard), allowing vegetation to reestablish. This would reduce erosion and concentrated runoff from these sites.

The seasonal closures for purposes of minimizing effects of motorized use during spring breakup (99 miles) would allow portions of roads and trails to dry out and reduce the chance of rutting and subsequent erosion and to prohibit visitors from driving around wet or muddy sections of roads.

The percent of total routes designated for public use that have proposed seasons of use is 34%. Changes in dispersed vehicle camping along the Main Fork of Rock Creek Road (#2421) will allow 28 sites heavily impacted by repeated use to gradually revegetate, which will lead to a reduction in compaction and improved infiltration and less erosion and runoff. The remaining dispersed sites will likely continue to receive heavy use. However, expansion of new sites in the Main Fork of Rock Creek would be restricted under this alternative.

Approximately 255 miles of routes will allow public motorized use (82 miles on landforms with high erosion hazard, 79 miles on landforms with medium erosion hazard, and 84 miles on low erosion hazard landforms). Of the 161 miles of public motorized use on landforms with high and medium erosion hazards, 84 miles are designated for highway vehicles and 111 miles are designated for all motorized vehicles which might include highway vehicles. Approximately 50 miles of routes on high and medium erosion hazard landforms are designated for OHV or motorcycle use. There are 273 miles of routes that will allow non-motorized use (73 miles on high erosion hazard landforms, 78 miles on landforms with medium erosion hazard and 121 miles on low erosion hazard landforms. This could affect soil productivity by eroding soil from and adjacent to the road, and by depositing sediment on areas below the road.

This alternative also recognizes roads and trails that will be designated for motorized use contingent on completing mitigation. There are approximately 0.42 miles of motorized road in the Pryor Mountains area (portion of road 2144) that will be designated for use by OHVs less than 50 inches wide once mitigation is complete. This designation is dependent on addressing erosion, water on the road, and the subsequent user created trails bypassing this segment. These concerns have affected soil productivity in this area. This portion of the road will not be open to motorized travel until adequate erosion control measures are implemented on the specific section of road. Appropriate mitigation will be determined based on site specific inventory and analysis.

There are approximately 3 miles of non-system trails being added to the system for non-motorized use and approximately 2 miles of roads that are being converted to non-motorized use. In addition there are around 0.5 miles of roads that would be changed from motorized use to non-motorized use. This should lead to an overall improvement in the soil condition in these general areas.

***Cumulative Effects-Soils***

Cumulative effects occur when past present or foreseeable activities overlap in both time and space with the proposed activities. Cumulative effects would occur only where proposed activities would overlap where previous management has affected soil conditions. Activities outside of the locations of proposed management are not subject to cumulative effects because they do not overlap spatially with the lands being proposed for management in the Beartooth Travel Management Project. Soil effects do not extend off of the piece of ground where they occur.

The current logging and mining activities that do occur in the analysis area incorporate BMPs and produce relatively few soil impacts relating to roads and trails. Timber sales are audited for compliance with BMPs and are monitored to see that design features that reduce soil effects are implemented.

The continuation of livestock grazing activities will overlap with the proposed action in both time and space. They could potentially contribute to the effects. This would occur only where roads and trails are beginning to revegetate. The effect of livestock grazing has no impact on the designation of roads or trails.

A potential cumulative impact this project might have on future projects is the effect of not adding a route to the system. Soil quality standards do not apply to permanent (i.e. system) roads. Roads that are not designated and not identified as “system” roads or trails will need to be included in soil quality assessment when analyzing future projects until routes have been decommissioned or naturally revegetate.

Roads and trails identified as system routes (including conversion from non-system routes) when reconstructed, relocated, or maintained to meet standards and incorporate BMPs, would reduce soil effects from these roads and trails.

Restoration activities to improve soil conditions might include ripping, recontouring, and seeding routes not added to the system and not designated. The goal would be to reduce soil compaction and meet the direction provided in Region 1 Supplement 2500-99-1 (See Regulatory Framework and Consistency at the end of this section). In general, tilling or scarifying a compacted soil improves

**Chapter 3: Affected Environment and Environmental Consequences**

productivity by reducing the resistance of soil to root penetration, and providing improved soil drainage and aeration to enhance seedling establishment and tree growth (Bulmer 1998, p 10 and 13) and improve the environment for soil organisms. The goal of soil restoration is to set the stage for the soil to begin the recovery process. Soil restoration is not an immediate result of ripping, planting, or any other activity.

**Table 3-57. Route Miles By Erosion Hazard Rating For The Different Alternatives On The District**

Designation	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified
<b>Public Motorized</b>					
High/Very High	111	80	50	94	84
Medium	54	32	27	40	36
Low	166	139	109	140	138
Other	19	9	8	13	10
<b>Public Non-motorized</b>					
High/Very High	73	78	77	73	74
Medium	78	82	82	75	78
Low	124	124	126	122	122
Other	0	0	0	0	0
<b>Administrative</b>					
High/Very High	19	21	29	13	22
Medium	15	21	24	11	22
Low	7	7	8	5	7
Other	0	1	1	0	1
<b>Not Designated</b>					
High/Very High	12	34	51	35	35
Medium	20	40	56	45	41
Low	6	14	26	26	15
Other	1	11	11	7	9

Note: Small differences in mileage figures between this and other tables are due to GIS analysis and rounding errors.

**3.3.3.3 Conclusion - Soils**

Although regional soil quality standards do not apply to this project, adding routes to the National Forest System and designating roads and trails for public or administrative use will have an impact on soil productivity. Roads and trails impact and disrupt the natural function of the soil resource, and are long-term commitments to that specific use. Non-system routes will revegetate or be reclaimed and eventually return to productivity. Alternative C would provide the greatest number of miles of routes to return to productive capability over time. Alternative A would provide the least number of miles. Alternative B and Alternative B Modified would provide an intermediate number of miles compared to Alternatives A and C. Alternatives B, C, and B Modified all would have fewer miles of routes available to the public for motorized use on landforms with high erosion hazard compared to Alternative A and the no-action alternative. Alternative B Modified, with the proposed seasons of use, deferred designation contingent upon mitigation, and dispersed camping constraints would allow motorized use while minimizing affects to the soil resource.

**Table 3-58. Comparison of Erosion Hazard Rating by Alternative**

Feature		Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified
<b>High/Very High Erosion Hazard Rating</b>						
Miles of Motorized Routes designated for public use	Pryor	81	57	31	67	58
	Beartooth	29	23	19	27	25
	District	111	80	50	94	84
Miles of Non-motorized Routes designated for public use.	Pryor	1	2	2	1	2
	Beartooth	72	76	76	72	72
	District	73	78	77	73	74
<b>Medium Erosion Hazard Rating</b>						
Miles of Motorized Routes designated for public use.	Pryor	19	9	8	13	10
	Beartooth	35	23	19	26	26
	District	54	32	27	40	36
Miles of Non-motorized Routes designated for public use.	Pryor	0	0	0	0	0
	Beartooth	78	82	82	75	78
	District	78	82	82	75	78

**3.3.4 VEGETATION**

**Overview of Changes from the Draft to the Final EIS**

- *Vegetation Section.* In response to public comment, effects to vegetation below 8000’ were incorporated and analysis results were addressed by land unit (Pryor and Beartooth Units) and as a total District unit.
- *Weed Section.* Some statements were clarified relative to type of use versus amount of use.
- *Sensitive Plant Section.* Analysis results were addressed by land unit (Pryor and Beartooth Units) and as a total District unit in response to public comment.

**Introduction**

Analysis of associated travel disturbances on vegetation, weed spread, and sensitive plants are addressed under the general heading of Vegetation.

**3.3.4.1 Affected Environment – Vegetation**

**Introduction**

There is a concern that designation of travel routes allows for disturbance of native vegetation by vehicles, camping, hiking, mountain biking, and pack and saddle stock. Vegetation has various abilities to recover from disturbance depending upon frequency, duration, and timing of disturbance and species ability to resist disturbance.

Some public comments show concern about recreational use in alpine and subalpine systems that are difficult to recover. Alpine and subalpine ecosystems occur in harsh settings; typically shallow soils and exposed to extreme climates. These areas can take many years to recover after disturbance in comparison to lower montane systems where environmental variables can allow for faster recovery.

### **Chapter 3: Affected Environment and Environmental Consequences**

Some concerns were voiced about vegetation disturbance from illegal motorized use off of designated routes. NEPA analysis typically assumes that there will be compliance with laws, regulations, and policy. Attempting to identify the location and extent of unauthorized off-route use is outside the scope of this analysis.

Some comments were made relative to difficult vegetation recovery from travel management activities related to frequently used areas, mostly identified in the Main and West Forks of Rock Creek. Soil compaction, change in stream channel morphology and function, change in native vegetation composition, and low ground cover have occurred in these frequently used dispersed campsite locations and have created exposed areas, denuded of vegetation. The affected environment and environmental consequences of these areas are addressed in the Water and Recreation sections of this chapter and will not be addressed further in this section.

#### ***Regulatory Framework***

36 CFR 219.20 outlines direction regarding ecological sustainability. Plans should provide for maintenance or restoration of ecosystems at appropriate spatial and temporal scales determined by the responsible official. The spatial scale for this analysis is the project area and the temporal scale is the planning horizon of the decision resulting from this analysis, identified as ten years.

#### ***Overview-Vegetation***

Vegetation of the Pryor and Beartooth Mountains are influenced by various environmental factors that make each mountain range floristically rich and diverse.

#### **Pryor Mountain Vegetation**

Pryor Mountain vegetation is largely influenced by sedimentary parent material. The setting within the project area is composed of subalpine meadows and ridges, montane coniferous forests, meadows, foothill grasslands, and a small portion of semi-desert. The Pryor Mountains are considered a “botanical hotspot”, rich in species and community diversity. Within a 20 mile drive one can find dramatically different vegetation types from semi-desert to subalpine areas. This land unit is where three floristic provinces converge (Prairies, Rocky Mountains, and Great Basin). Floristic elements are a blend from all three provinces. Plants typical of the Prairies occur in the northeast portion of the Pryors. The Rocky Mountain elements occur on the north and northeast aspects where it is relatively moist and cool. The Great Basin species are best represented at the dryer southern portion of the Pryor Mountains. The Pryor Mountains contain the eastern most extent of Douglas-fir in Montana and the northern most extent of Utah Juniper. This area has been found to have high levels of endemism where plant species that are globally rare are found only in the Pryor Mountains and Bighorn Basin area.

As a result of inventory and compiling 17 plant lists from various botanists studying the Pryor Mountains, McCarthy documented 981 vascular plant species which represent 71 plant families in a 316,000 acre study area (McCarthy, 1996). Even though the Custer National Forest portion of the Pryor Mountains is about a quarter of that study area, species diversity and richness are still apparent. Montana Natural Heritage Program (2007) cites 72 vegetation types around the Pryor Mountain Area (Bighorn Basin Ecological Setting). It is recognized that travel management can influence activity not only on National Forest System lands, but also adjacent BLM lands which are also floristically rich and diverse.

### **Beartooth Mountain Vegetation**

Beartooth Mountain vegetation is primarily influenced by granitic parent material, along with some volcanic and sedimentary parent material. The setting is composed of alpine ridges, mountain peaks, cirques, moraines, tundra plateaus, coniferous forests, meadows, and foothill grasslands. Montana Natural Heritage Program (2007) cites 188 vegetation types around the Beartooth Mountain Area (Yellowstone Highland Ecological Setting). The alpine areas alone contain around 400 plant species. Roughly 50% of the Beartooth Mountain flora is also found in the Arctic. The flanks of Line Creek Plateau provide habitat for some of the Bighorn Basin endemic and globally rare species.

### ***General Cover Types***

#### **Montane and Foothill Grassland and Shrubland**

Much of the montane and foothill grasslands found on the District consist of cool season grasses such as Idaho fescue, bluebunch wheatgrass, and needle-and-thread grass. These are typically found on warm (southerly aspect), well-drained sites at all elevations throughout the Forest. Although there is not a great deal of acreage in shrubland communities, such as shrubby cinquefoil or sagebrush, they are important from a species diversity perspective.

#### **Wetlands and Riparian Communities**

Plant communities dominated by moisture-loving plants along streams, wetlands, seeps, and springs occupy a small fraction (less than 5%) of the total landscape on the District. However, these sites have the greatest species diversity of all vegetation communities in our area. Many different types of wetlands / riparian areas exist, including sedge or rush dominated marshes; grass or sedge dominated wet meadows; fens, peat land, willows, red-osier dogwood, and alder.

#### **Forested and Broadleaf Plant Communities**

Open and closed canopy environments of common coniferous forest types are found on the District. The Pryor Mountains are predominantly Douglas-fir communities with some lodgepole pine, and limber pine, and the Beartooths are predominantly lodgepole, subalpine fir, Douglas-fir, and spruce. Aspen and cottonwood stands are found across the Beartooth District.

#### **Alpine/ Subalpine Plant Communities**

Alpine communities occur at the highest elevations along the Beartooth Mountain range. These communities are highly significant from a diversity standpoint, because they serve as refugia for arctic/alpine species that are topographically isolated from one another. Consequently, a number of rare native species can be found in the alpine portions of the Beartooth Mountains. Subalpine communities occur at the highest elevations along the Pryor Mountain range.

#### **Denuded Areas**

Based on observations, denuded areas from campsites and tethering are isolated and not common. They typically occur within forested settings and especially in the heavily used dispersed campsites in the Main and West Fork drainages of Rock Creek. Nine sites in these drainages were identified for closure under Alternatives B and B Modified due to impacts to riparian areas and contribution to water quality concerns. Other denuded areas include isolated areas where vehicle rutting off-route has occurred. Typically, deep rutting has a higher likelihood of occurring during spring thaw. See Soils and Water sections for further effects analysis.

## **Chapter 3: Affected Environment and Environmental Consequences**

### **Higher Elevations**

Approximately 59% (319,748 acres) of the District (539,771 acres) is over 8000' in elevation where systems are typically considered subalpine and alpine. However, only about half of the high elevation country is vegetated alpine / subalpine (181,067 acres or 33% of the District).

Approximately 52 miles of existing motorized routes and about 110 miles of non-motorized routes occur within these vegetated settings. Many of the high elevation motorized routes occur through areas of open grass and forbs on gentle to moderate terrain. Natural barriers to off-route travel, such as heavier canopied forested lands, consist of about a third of the landscape at these elevations. Restoration of the travel and camping related damage can have limited success due to the severity of the environment, which restricts plant germination and growth and increases the potential for soil erosion. Rate of recovery is slow.

### **Lower Elevations**

Approximately 41% (220,023 acres) of the District (539,771 acres) is below 8000' in elevation where systems can typically recover more rapidly from disturbance when compared to the alpine / subalpine systems in the higher elevations. These lower elevation systems consist of montane and foothill grasslands and shrublands, riparian / wetlands, coniferous forests and broadleaf stands. There is a minor component of semi-desert area in the Pryor Mountains where recovery from disturbance may not be as rapid as in the montane settings due to various environmental factors including low precipitation.

Approximately 277 miles of motorized routes and about 143 miles of non-motorized routes exist in these vegetated settings. Many of the lower elevation motorized routes occur through areas of grasslands, shrublands, and open and closed forested settings ranging from gentle to steep terrain. Natural barriers to off-route travel, such as heavier canopied forested lands, consist of about a quarter of the landscape at these elevations.

### ***Factors Influencing Area Impacted and Severity of Impact***

The overall impact of a travel use on vegetation is a function of both the area impacted and the severity of impact within the disturbed area. Travel related impacts to vegetation include disturbances from camping, vehicle use, hiking, mountain biking, and pack and saddle stock. Factors that influence the severity of vegetation impact include duration and frequency of use, vegetation resistance and resilience, and season of use.

### **Duration and Frequency of Use**

It is recognized that impacts might occur anywhere along designated travel routes. However, there is a higher probability of more severe vegetation impacts in areas where people tend to frequent repeatedly. These areas are typically near water, vistas, trailheads, shade, and other areas on gentle terrain suitable for camping (usually 0 to 4% slopes). Sites that are used infrequently and sites that are capable of resisting deterioration will usually be less impacted than those that are used frequently and those that are readily disturbed. For example, in long-established campsites, the magnitude of vegetation impact is determined as much by the ability of vegetation to recover from disturbance as by the ability to resist disturbance.

### **Resistance and Resilience**

Aspects of vulnerability of vegetation having impacts and ability to recover include attributes of resistance and resilience. Resistance refers to the ability of vegetation to resist change when trampled. Resilience refers to the ability of vegetation to recover following the cessation of trampling and tolerate a cycle of disturbance and recovery.

Resistant vegetation types, such as sedges, are able to absorb 25 to 30 times as much trampling as the least resistant type, such as ferns (Cole 1993b). Plant characteristics, notably the position of the plants' perennating bud and physiological characteristics such as reproductive capacity and growth rates, also influence resilience (Cole 1995). Morphological characteristics are primary factor influencing plant resistance to trampling. Grasses and sedges have flexible stems growing in mats or tufts. More fragile were woody plants and taller herbs. Complete loss of vegetation cover occurs quickly in shady forested areas, less quickly in open areas with resistant grassy vegetation (Leung & Marion, 1996). The resilience of plants, their ability to recover following trampling disturbance, varies substantially by habitat, with higher recovery in the most productive environments such as those with higher soil fertility and moisture. For example, recovery rates are high in riparian areas. Recovery in montane systems is typically moderate to high. In contrast, trampling impacts in less resilient environments, such as alpine / subalpine and arid environments, require a long time to recover. (Leung & Marion, 2000)

### **Season of Use**

The timing of use can also influence the severity of impact. Soil moisture influences the susceptibility of vegetation to trampling damage and direct mortality from rutting. Compaction is generally higher in wetter, poorly drained soils than in well-drained soils which can also influence vegetative conditions. Soil moisture levels at any site vary during the growing season. However, the spring thaw period tends to be the most susceptible periods for rutting and erosion which can have a direct bearing on impacts to vegetation. Ruts occur when vehicle load is greater than the terrain's bearing capacity, especially in soft soils. Vehicle load, tire or tracked footprint area, and wheel slip influence the level of rutting and vegetation impacts (Affleck. 1995).

When vehicles cross wet areas, they can churn up the surface and damage vegetation, creating wet, muddy areas that other drivers want to avoid. Continued use widens trails as successive drivers seek to avoid wet and rutted areas. As ruts become deep and ponds form in the low areas, users continue to widen and braid the road to avoid these spots. Timing of use through management strategies, such as restricting use during spring breakup, can also influence the degree of impact on vegetation.

### ***Effects Analysis Methodology-Vegetation***

Both the Pryor and Beartooth Mountains are floristically rich and diverse with many plant communities, including rare elements. This section addresses impacts to plant communities, while the sensitive plant portion of the Vegetation section addresses rare elements.

General potential effects to vegetation are based on literature reviews. Geographical Information System (GIS) methods were used to assess the magnitude of area potentially impacted and potential risk categories based on various elements of frequency, duration, timing, and vegetation resistance and resilience. The magnitude of area potentially impacted is stratified by risk of impacts in low, moderate and high risk categories. Potential use within each Alternative's corridor (300 feet for

### **Chapter 3: Affected Environment and Environmental Consequences**

Alternatives A, B, No Action, and B Modified, and 50 feet for Alternative C) is projected to have less frequency of use (not all the area within the corridor will be traveled since one must use the most direct route to a campsite). These areas were identified through the intersection of cover type resistance / resilience groupings in each of the three risk categories with each of the Alternative's use corridors. These areas were further intersected with the risk category cover type groups within a 0 to 4% slope class. The 0 to 4% slope class represents the area with higher probability for concentrated use and severity of impact such as camping. This method is further stratified by both motorized and non-motorized and by land unit. The measurement is in acres and percent of potentially impacted acres compared to total acres.

#### **Duration and Frequency of Use**

##### *Potential Infrequent Use Areas – Potential Use Corridors*

Impacts might occur within each Alternative's potential impact corridor along designated travel routes. Sites that are used infrequently and sites that are capable of resisting deterioration will usually be less impacted than those that are used frequently and readily disturbed

The following buffers from designated routes were used to describe the Potential Use Corridor by Alternative. For designated motorized routes, a 50 foot buffer was applied under Alternative C to address a parking allowance. A 300 foot buffer was applied to all other alternatives' designated motorized routes to address access for dispersed camping allowance. For designated non-motorized routes, a 50 foot buffer was applied to all alternatives to address potential for dispersed camping. It is recognized that not all estimated acreage will be affected and therefore results will be on the conservative side.

##### *Potential Frequent Use Areas – 0 to 4% Slopes*

There is a higher probability for more severe vegetation impacts in areas where people tend to visit repeatedly or with longer duration of use. These areas are typically near water, vistas, trailheads, shade, and other areas on gentle terrain suitable for camping (usually 0 to 4% slopes).

Zero to 4% slopes are used to represent potential frequent use areas, found within each Alternative's potential use corridors, and are intersected with elements outlined in the resistance and resilience section below. The 0 to 4% slope class is used because people tend to concentrate for longer durations of use at campsites or areas in gentle terrain. It is recognized that not all estimated acreage will be affected and therefore results will be on the conservative side.

#### **Resistance and Resilience**

All vegetation cover types from satellite imagery (SILC3) are addressed within the following three risk groupings based on degree of vulnerability to resist impacts (resistance) and ability to recover (resiliency). The three groups are intersected with the frequent and infrequent use areas outlined above.

Because grasslands and shrub/grass vegetation types below alpine/subalpine zones tend to have higher resistance (lower vulnerability to trampling) and resilience (higher resiliency to recover) elements, these cover types below 8000 foot elevation are used to represent areas of low risk for impacts.

Because forested and broadleaf vegetation types tend to have lower resistance to impacts and moderate to high resiliency to recover, these cover types are used below 8000 foot elevation to represent areas of moderate risk for impacts.

Although alpine / subalpine may have some elements that are more resistant to trampling (i.e., sedge meadows), they are considered to have very low resilience for recovery once impacted, with recovery rates that are very slow. Vegetation cover types above 8000 foot elevation are used to represent areas of high risk for impacts.

Miles of designated motorized and non-motorized routes going through vegetation above and below 8000 feet are used as a measurement to assess potential impacts of recreational activities in these settings.

#### **Season of Use**

Miles of designated motorized routes going through vegetation by risk category during spring thaw are used as a measurement to assess potential impacts of motorized recreational activities in these settings. It is recognized that impacts to vegetation can come from non-motorized uses during spring thaw. However, the measurement is focused on motorized uses since weight, “footprint” size, and wheel slip features of motorized uses tend to have more impact during spring thaw.

#### **3.3.4.2 Environmental Consequences – Vegetation**

##### ***Direct and Indirect Effects-Vegetation***

##### **General Effects Common to All Alternatives**

##### ***Trampling***

Crushing or treading upon vegetation, either by foot, hoof, or tire, contributes to a wide range of vegetation impacts, including damage to plant leaves, stems, and roots, reduction in vegetation height, change in the composition of species, and loss of plants and vegetative cover. Trampling can quickly break down vegetation cover and create a visible route that attracts additional use. Complete loss of vegetation cover occurs quickly in shady forested areas, less quickly in open areas with resistant grassy vegetation. Regardless, studies have consistently revealed that impacts can occur with initial or low use, with a diminishing increase in impact associated with increasing levels of traffic (Hammit & Cole, 1998; Leung & Marion, 1996). Once trampling occurs, the rate of vegetative recovery can vary, depending on the site’s resistance and resilience to disturbance.

Soil compaction from repeated trampling can affect plant growth by reducing moisture availability and precluding adequate taproot penetration to deeper soil horizons. In turn, the size and abundance of native plants may be reduced. Above-ground portions of plants also may be reduced through breakage or crushing, potentially leading to reductions in photosynthetic capacity, poor reproduction, and diminished litter cover. Likewise, blankets of fugitive dust raised by motorized traffic can disrupt photosynthetic processes, thereby suppressing plant growth and vigor, especially along motorized routes. In turn, reduced vegetation cover may permit invasive and/or non-native plants—particularly shallow-rooted annual grasses and early successional species capable of rapid establishment and growth—to spread and dominate the plant community, thus diminishing overall local biodiversity.

### **Chapter 3: Affected Environment and Environmental Consequences**

Compositional changes in the vegetation along trail corridors can have both beneficial and adverse effects. Trampling-resistant plants provide a durable groundcover that reduces soil loss by wind and water runoff, and root systems that stabilize soils against displacement by heavy traffic. Many of introduced species are disturbance-associated and are naturally limited to areas where the vegetation is routinely trampled or cut back. However, a few invasive non-native species, once introduced to trail corridors, are able to out-compete native plants and spread away from the trail corridor in undisturbed habitats. Some of these species form dense cover that crowd out or displace native plants (see Weeds Section).

#### *Camping*

Vegetation composition of campsites is not changed by infrequent camping for short periods. However, aerial plant parts will be broken and flowering in the season of impact may be affected. Long-term or frequent camping, even for one season, results in the destruction of vegetation, leaving barren compacted areas. Alpine / subalpine recover very slowly unless rehabilitation measures such as scarification, fertilization, seeding, and transplanting are practiced on protected sites (Price, 1985).

The creation of fire-rings impacts vegetation through burning, and the covering of vegetation with rocks. Revegetation is likely to be slow, because of changes in soil characteristics from such as loss of nitrogen, phosphorus, sulphur, and organic matter. The firewood used in campfires often comes from dead trees, but living trees have also been used, often to an extent which exceeds their capacity for regeneration. In alpine settings, although of sparse occurrence, trees have a significant localized influence in alpine environments through the modification of snow deposition patterns and the accumulation of nutrients. Consequently, their destruction and removal might be expected to have long-term indirect effects on neighboring vegetation (Price, 1985).

Minor impacts associated with camping include the death of vegetation covered with garbage, partly-burned wood, or rocks removed from campsites. Digging of pits for garbage disposal and the removal of rocks from campsites -result in the creation of small bare areas, which are often enlarged by erosional processes and trampling.

#### *Vehicles*

The overall impact of a vehicle on vegetation is a function of both the area impacted and the severity of impact within the disturbed area. The severity of vegetation impact within a disturbed area can be higher than hiking, mountain biking, and stock use based on weight (a dirt bike weighs 100-200 pounds, whereas typical ATV can weigh up to 900 lbs, or up to several tons for 4x4 Off Road Vehicles), power, tire-surface area (tire footprint), and wheel slip that can cause greater compression on soils and vegetation as well as vegetation shearing. Vehicle impacts to vegetation can be exacerbated by rutting during spring thaw due to low bearing capacity of soft soils (Affleck. 2005).

Direct impacts of vehicle activities on vegetation include reduced vegetation cover and growth rates, and increased potential for non-native and pioneering species to become established, thus altering vegetation communities. In certain instances, however, the impervious nature of compacted routes could result in runoff that generates greater moisture availability immediately along motorized routes. In turn, this would promote increased vegetation cover and plant abundance farther away. Repeated off-route activity results in the crushing, breaking and overall reduction of vegetative cover. Detours around snowbanks are sometimes made by vehicles, and parallel motorized routes are more widely spaced than those made by non-motorized users.

Indirect effects of vehicle activities on vegetation are tied to soil properties altered by vehicle traffic, as soil properties typically influence vegetation growth. Motorized roads and trails also create edge habitats, which can generate conditions that promote the encroachment of non-native and invasive plant species. Other indirect effects include increased amounts of airborne dust raised by traffic. Fugitive dust on plant foliage can inhibit plant growth rate, size, and survivorship. Vehicle passes can also result in indirect effects including damaging germinating seeds, and weakening plants making them more susceptible to disease and insect predation. Vehicles can result in changes in plant species composition.

#### *Hiking*

The initial impact of hiking is direct mechanical damage to the aerial parts of plants. Impacts resulting from increasing levels of use include physiological changes, and changes in species composition and plant cover.

Willard and Marr (1970) (Price, 1985) found that no permanent damage resulted from up to 20 people a year walking randomly through an area of alpine tundra in Rocky Mountain National Park. However, concentrated walking resulted in measurable change as trails formed. Two weeks' use of the study area resulted in the matting and wilting of plants, and the initial definition of trails. After seven weeks' use, it was observed that damaged plants did not bloom. Five weeks later, all of the trails had become well-defined, as most plants were damaged or dead, and vegetation cover had declined by 13 percent. After three seasons of use, the vegetation cover of the study area had been reduced to 33 percent of the original, with the few remaining plants living in the shelter of rocks. The removal of the vegetation cover had resulted in the deflation of fine soil particles from bare areas, leaving a substrate of sand and gravel. This sequence of events has been described from many alpine areas: the degree of change varies with the distribution of use in time and space, the resilience of the vegetation, site and soil characteristics, and the management strategies which are developed to minimize change.

A number of general conclusions may be drawn from studies of trampling adjacent to trails. First, vegetation cover decreases toward trails. In most cases, the extent of bare areas will increase over time, as a result of wind, water, and erosion. Second, plant species vary considerably in their susceptibility to long-term trampling. Vegetation adjacent to trails is typically dominated by a few low-growing forbs or graminoid species (i.e., grasses and sedges), most of which occur with low frequency, if at all, in undisturbed vegetation even a short distance from the trail edge. Conversely, undisturbed vegetation has a greater diversity of species, which are adjusted to the usual stresses of the alpine environment, but not the additional stress of trampling and the resulting altered microclimate. Where a species, which is particularly well-adapted to trampling, is available (i.e., many sedge species), it may come to dominate all trail-side vegetation (Price, 1985).

#### *Mountain Biking*

Short-term studies suggest that mountain biking effects on vegetation and soil are similar to hiking (Thurston & Reader 2001), though Cessford (1995) noted that there was some extra damage caused when skidding downhill, or as a result of torque-induced wheel spin when riding up steep, wet slopes. However, mountain bikers can also cover much more ground (by a factor of 5-10) in a given time than walkers, especially downhill (Switzlki and Jones. 2008).

### **Chapter 3: Affected Environment and Environmental Consequences**

#### *Pack and Saddle Stock*

Recreational pack and saddle stock can cause trampling damage along trails and at tethering sites, and preferential grazing of selected species. Grazing pressure and nitrogen availability (manure and urine) are greatest near trails and tethering sites. Two factors result in a significant contrast between the trampling impacts of stock as compared with hikers: distribution of pressure on the ground surface and stock behavior. For Example, typical pressures exerted by horses are from three to four times higher than hikers (Price, 1985). Thus, vegetation is more likely to be damaged by horses, and horse trails tend to be more deeply incised than hiking trails. Similarly, tethering sites are often more quickly damaged than campsites.

Differences in stock behavior include a greater tendency for horses to cut corners on switchbacks, resulting in trail widening; horses can cut across very wet meadows, around which hikers will find an alternative trail; and pack animals tend to drag their feet, loosening soil and vegetation. In general, horses keep to existing trails, so that multiple trail formation is less likely. However, detours around snowbanks are more commonly made by horses than hikers, and parallel horse trails are more widely spaced than those made by hikers. In general, trampling impacts resulting from horse use tend to be more localized and extreme than those caused by hikers.

Trail studies (Weaver and Dale. 1978) made in forests of central Montana and adjacent Wyoming show that trail widths increase slowly with increasing traffic, trails used by horses are deeper but not wider than those used by hikers alone, a relatively narrow (3-6 feet) band of vegetation at the trail side is affected, and some plants disappear at trail sides, some are largely unaffected, and others invade those sites.

The impacts of grazing are closely associated with trampling, since the two activities always occur together. Impacts from the combined influence of both activities can occur within areas of various sizes, ranging from a picket circle to entire meadow systems.

Changes in species composition will result from even very low levels of grazing in alpine meadows. Recovery of vegetation in grazed areas is slow, unless grazing animals are totally excluded and, in most cases, although a continuous cover of vegetation may develop, its species composition will be different from that of adjacent areas which have never been grazed (Price, 1985).

#### *Weeds*

An effect of travel and trampling can be the establishment and spread of weeds. These effects are further described in the Weed portion of the Vegetation section.

#### ***Magnitude and Settings of Potential Effects on Vegetation***

The following table summarizes potential amount of vulnerability for vegetation impacts for each Alternative by risk categories based on various elements of frequency, duration, timing, and vegetation resistance and resilience. It is further stratified by motorized and non-motorized routes and by land unit. It is recognized that not all estimated acreage will be affected and therefore results will be on the conservative side.

**Table 3-59. Potential Vegetation Impacts by Risk Category**

Attributes	Land Unit	Alt. A	Alt. B	Alt. C	No Action	Alt. B Modified
<b>High Risk Areas<sup>34</sup> - Motorized Routes</b>						
Acres Potential Frequent Use Areas (% of High Risk Area)	Pryor <sup>35</sup>	221 (2%)	202 (2%)	52 (<1%)	217 (2%)	173 (2%)
	Beartooth <sup>36</sup>	21 (<1%)	20 (<1%)	2 (<1%)	11 (<1%)	22 (<1%)
	Total <sup>37</sup>	195 (<1%)	218 (<1%)	102 (<1%)	228 (<1%)	195 (<1%)
Acres Potential Infrequent Use Areas (% of High Risk Area)	Pryor	1851 (16%)	1481 (13%)	291 (3%)	1581 (14%)	1497 (13%)
	Beartooth	1442 (1%)	1411 (1%)	237 (<1%)	1256 (1%)	1685 (1%)
	Total	3293 (2%)	2892 (1%)	528 (<1%)	2837 (1%)	3570 (2%)
Miles in High Risk Area	Pryor	29	23	21	25	20
	Beartooth	23	21	17	17	22
	Total	52	44	38	42	42
<b>High Risk Areas - Non-Motorized Routes</b>						
Acres Potential Frequent Use Areas (% of High Risk Area)	Pryor	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Beartooth	42 (<1%)	44 (<1%)	44 (<1%)	44 (<1%)	42 (<1%)
	Total	42 (<1%)	44 (<1%)	44 (<1%)	44 (<1%)	42 (<1%)
Miles through High Risk Area	Pryor	1	1	1	1	1
	Beartooth	109	109	109	109	107
	Total	110	110	110	110	108
<b>Moderate Risk Areas - Motorized Routes</b>						
Acres Potential Frequent Use Areas (% of Moderate Risk Area)	Pryor <sup>38</sup>	19 (<1%)	13 (<1%)	1 (<1%)	17 (<1%)	14 (<1%)
	Beartooth <sup>39</sup>	40 (<1%)	39 (<1%)	4 (<1%)	25 (<1%)	49 (<1%)
	Total <sup>40</sup>	59 (<1%)	52 (<1%)	5 (<1%)	42 (<1%)	63 (<1%)
Acres Potential Infrequent Use Areas (% of Moderate Risk Area)	Pryor	2231 (8%)	1524 (5%)	108 (<1%)	1860 (7%)	1679 (6%)
	Beartooth	1800 (3%)	1513 (3%)	211 (<1%)	1639 (3%)	1792 (3%)
	Total	4031 (5%)	3037 (4%)	319 (<1%)	3499 (4%)	3471 (4%)
Miles in High Risk Area	Pryor	26	17	7	22	17
	Beartooth	22	18	15	19	17
	Total	48	35	22	41	34
<b>Moderate Risk Areas – Non-Motorized Routes</b>						
Acres Potential Frequent Use Areas (% of Moderate Risk Area)	Pryor	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Beartooth	6 (<1%)	6 (<1%)	6 (<1%)	6 (<1%)	6 (<1%)
	Total	6 (<1%)	6 (<1%)	6 (<1%)	6 (<1%)	6 (<1%)

<sup>34</sup> All Vegetation Types above 8000' Elevation (alpine/subalpine)

<sup>35</sup> Pryor Unit alpine/subalpine high risk area = 11,470 acres

<sup>36</sup> Beartooth Unit alpine/subalpine high risk area = 184,797 acres

<sup>37</sup> Combined Pryor and Beartooth Unit's alpine/subalpine high risk area of the Beartooth District = 196,267 acres

<sup>38</sup> Pryor Unit montane forest moderate risk area = 28,197 acres

<sup>39</sup> Beartooth Unit montane forest moderate risk area = 58,556 acres

<sup>40</sup> Combined Pryor and Beartooth Unit's montane forest moderate risk area of the Beartooth District = 86,753 acres

**Table 3-59. Potential Vegetation Impacts by Risk Category**

Attributes	Land Unit	Alt. A	Alt. B	Alt. C	No Action	Alt. B Modified
Miles through Moderate Risk Area	Pryor	1	1	1	1	1
	Beartooth	37	38	38	37	36
	Total	38	39	39	38	37
<b>Low Risk Areas - Motorized Routes</b>						
Acres Potential Frequent Use Areas (% of Low Risk Area)	Pryor <sup>41</sup>	191 (<1%)	168 (<1%)	19 (<1%)	202 (<1%)	197 (<1%)
	Beartooth <sup>42</sup>	292 (<1%)	280 (<1%)	42 (<1%)	220 (<1%)	360 (<1%)
	Total <sup>43</sup>	483 (<1%)	448 (<1%)	61 (<1%)	422 (<1%)	557 (<1%)
Acres Potential Infrequent Use Areas (% of Low Risk Area)	Pryor	7399 (19%)	5268 (14%)	681 (2%)	6257 (16%)	5874 (15%)
	Beartooth	6684 (6%)	5411 (5%)	1016 (<1%)	5643 (5%)	6682 (6%)
	Total	14083 (10%)	10679 (8%)	1697 (1%)	11900 (8%)	12556 (9%)
Miles in Low Risk Area	Pryor	119	83	49	100	84
	Beartooth	111	89	76	92	94
	Total	230	172	125	192	178
<b>Low Risk Areas – Non-Motorized Routes</b>						
Acres Potential Frequent Use Areas (% of Low Risk Area)	Pryor	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Beartooth	29 (<1%)	29 (<1%)	30 (<1%)	27 (<1%)	28 (<1%)
	Total	29 (<1%)	29 (<1%)	30 (<1%)	27 (<1%)	28 (<1%)
Miles through Low Risk Area	Pryor	<1	<1	<1	<1	<1
	Beartooth	104	111	113	102	102
	Total	104	111	113	102	102

**All Risk Categories**

Potential for motorized related impacts to vegetation is less under Alternative C compared to all other alternatives largely due to allowance for parking only versus 300 foot vehicle access for dispersed camping.

**High Risk - Frequent Use Areas**

**Alternatives A, B, B Modified and No Action**

Potential impacts from frequent *motorized* use constitute about 2%, less than 1%, and less than 1% of the total Pryor Unit, Beartooth Unit, and Beartooth District high risk areas, respectively. Potential impacts from *non-motorized* use constitute about 0%, less than 1%, and less than 1% of the total Pryor Unit, Beartooth Unit, and Beartooth District high risk areas, respectively.

**Alternative C**

Potential impacts from frequent *motorized* use constitute less than 1% in each of the Pryor Unit, Beartooth Unit, and Beartooth District high risk areas, respectively. Potential impacts from *non-motorized* use constitute about 0%, less than 1%, and less than 1% of the total Pryor Unit, Beartooth

<sup>41</sup> Pryor Unit grass / shrub low risk area = 38,256 acres

<sup>42</sup> Beartooth Unit grass / shrub low risk area = 103,343 acres

<sup>43</sup> Combined Pryor and Beartooth Unit’s grass / shrub low risk area of the Beartooth District = 141,599 acres

Unit, and Beartooth District high risk areas, respectively.

***High Risk - Infrequent Use Areas***

**Alternatives A, B, B Modified and No Action**

Potential impacts from infrequent *motorized* use constitute about 13-16%, 1 to less than 1%, and 1-2% of the total Pryor Unit, Beartooth Unit, and Beartooth District high risk areas, respectively.

**Alternative C**

Potential impacts from infrequent *motorized* use constitute about 3%, less than 1%, and less than 1% of the total Pryor Unit, Beartooth Unit, and Beartooth District high risk areas, respectively.

***Moderate Risk - Frequent Use Areas***

**Alternatives A, B, B Modified and No Action**

Potential impacts from frequent *motorized* use constitute about less than 1% of each of the total Pryor Unit, Beartooth Unit, and Beartooth District moderate risk areas, respectively. Potential impacts from *non-motorized* use constitute about 0%, less than 1%, and less than 1% of the total Pryor Unit, Beartooth Unit, and Beartooth District moderate risk areas, respectively.

**Alternative C**

Potential impacts from frequent *motorized* use constitute less than 1% in each of the total Pryor Unit, Beartooth Unit, and Beartooth District moderate risk areas, respectively. Potential impacts from *non-motorized* use constitute about 0%, less than 1%, and less than 1% of the total Pryor Unit, Beartooth Unit, and Beartooth District moderate risk areas, respectively.

***Moderate Risk - Infrequent Use Areas***

**Alternatives A, B, B Modified and No Action**

Potential impacts from infrequent *motorized* use constitute about 5-8%, 3%, and 4-5% of the total Pryor Unit, Beartooth Unit, and Beartooth District moderate risk areas, respectively.

**Alternative C**

Potential impacts from infrequent *motorized* use constitute less than 1%, in each of the total Pryor Unit, Beartooth Unit, and Beartooth District moderate risk areas, respectively.

***Low Risk - Frequent Use Areas***

**Alternatives A, B, B Modified and No Action**

Potential impacts from frequent *motorized* use constitute less than 1% in each of the total Pryor Unit, Beartooth Unit, and Beartooth District low risk areas, respectively. Potential impacts from *non-motorized* use constitute less than 1% in each of the total Pryor Unit, Beartooth Unit, and Beartooth District low risk areas, respectively.

**Alternative C**

Potential impacts from frequent *motorized* use constitute less than 1% in each of the total Pryor Unit, Beartooth Unit, and Beartooth District low risk areas, respectively. Potential impacts from *non-*

### **Chapter 3: Affected Environment and Environmental Consequences**

*motorized* use constitute about 0%, less than 1%, and less than 1% of the total Pryor Unit, Beartooth Unit, and Beartooth District low risk areas, respectively.

#### ***Low Risk - Infrequent Use Areas***

##### **Alternatives A, B, B Modified and No Action**

Potential impacts from infrequent *motorized* use constitute about 14-19%, less than 1%, and less than 1% of the total Pryor Unit, Beartooth Unit, and Beartooth District low risk areas, respectively.

##### **Alternative C**

Potential impacts from infrequent *motorized* use constitute about 2%, less than 1%, and 1% in the Pryor Unit, Beartooth Unit, and Beartooth District low risk areas, respectively.

#### ***Season of Use***

The spring thaw period tends to be the most susceptible periods for rutting, compaction, and erosion which can have a direct bearing on impacts to vegetation. When vehicles cross wet areas, they can churn up the surface and damage vegetation, creating wet, muddy areas that others want to avoid. Continued use widens trails as successive drivers seek to avoid wet and rutted areas. As ruts become deep and ponds form in the low areas, users continue to widen and braid the road to avoid these spots. Ruts could occur when vehicle load is greater than the terrain's bearing capacity, especially in soft soils during spring breakup.

Timing of use through management strategies, such as restricting use during spring thaw, can also influence the degree of impact on vegetation. Most of the Beartooth Unit road subgrades are rocky and hard (granitic parent material) where damage from vehicles during spring thaw is less of an issue. Portions of the Red Lodge Creek road are proposed for closure during spring thaw due to the finer grained nature of the soils in that location. Many of the routes in the Pryor Unit do not support loads well when wet (sedimentary parent material). Spring thaw restrictions in the Pryor Unit range from 19 miles in Alternative C, to 58 miles in Alternative B Modified, to 60 miles in Alternative B.

Under Alternative B Modified, seasonal restrictions on six miles of motorized routes for purposes of minimizing impacts during moose calving (Meyers and Lodgepole routes) will afford additional protection to vegetation resources since the closure time is concurrent with spring thaw.

#### ***Cumulative Effects-Vegetation***

Fuels reduction, prescribed burning, livestock grazing, and timber management projects are currently planned and will continue to be planned for the District. These projects and any associated road use or construction have potential to impact vegetation. Projects are designed to minimize impacts to vegetation.

Use of existing designated routes and associated 300 foot allowance for access to vehicle camping, in combination with the proposed actions, have potential to impact vegetation within the project area. There is potential to affect all vegetation at all elevation gradients. The following table displays the potential magnitude and risk of impact to vegetation for designated routes by alternative.

Implementation of any of the alternatives considered in this EIS would not be expected to contribute to significant cumulative effects associated with native vegetation. Anticipated future projects or

activities are fewer in number and less disruptive from a resource extraction point of view than those projects or activities that have taken place in the past.

**3.3.4.3 Conclusion - Vegetation**

Because it is seldom possible to control or even document the past use or predict future use, estimates of the impacts caused by different use frequencies are imprecise. The ability to predict the effects of different intensities of various uses is low. However, the amounts of potentially affected area, projected within the context of high risk categories based on various elements of frequency, duration, timing, and vegetation resistance and resilience are displayed in the following summary table. It is recognized that not all estimated acreage will be affected and therefore results are on the conservative side.

**Table 3-60. Summary of Potential Vegetation Impacts in High Risk Areas**

Feature	Unit	Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified
<b>High Risk Areas - Motorized Routes</b>						
Acres Potential Frequent Use Areas (% of High Risk Area)	Pryor Unit	221 (2%)	202 (2%)	52 (<1%)	217 (2%)	173 (2%)
	Beartooth Unit	21 (<1%)	20 (<1%)	2 (<1%)	11 (<1%)	22 (<1%)
	District	195 (<1%)	218 (<1%)	102 (<1%)	228 (<1%)	195 (<1%)
Acres Potential Infrequent Use Areas (% of High Risk Area)	Pryor Unit	1851 (16%)	1481 (13%)	291 (3%)	1581 (14%)	1497 (13%)
	Beartooth Unit	1442 (1%)	1411 (1%)	237 (<1%)	1256 (1%)	1685 (1%)
	District	3293 (2%)	2892 (1%)	528 (<1%)	2837 (1%)	3570 (2%)
Miles in High Risk Area	Pryor Unit	29	23	21	25	20
	Beartooth Unit	23	21	17	17	22
	District	52	44	38	42	42
<b>High Risk Areas - Non-Motorized Routes</b>						
Acres Potential Frequent Use Areas (% of High Risk Area)	Pryor Unit	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Beartooth Unit	42 (<1%)	44 (<1%)	44 (<1%)	44 (<1%)	42 (<1%)
	District	42 (<1%)	44 (<1%)	44 (<1%)	44 (<1%)	42 (<1%)
Miles through High Risk Area	Pryor Unit	1	1	1	1	1
	Beartooth Unit	109	109	109	109	107
	District	110	110	110	110	108

Frequency and duration of motorized and non-motorized activities are difficult to separate. However, potential for impacts from motorized use activities typically tends to be higher than non-motorized activities due to higher mobility for increased frequency and a bigger footprint for increased effects (weight, size, wheel slip, etc.) than most modes of travel. There is likelihood for more impacts from compaction due to higher pressure from more surface area that vehicles pose.

Although miles of motorized and non-motorized routes do not differ substantially by alternative, the potential areas for effects do differ. Alternative C has fewer areas exposed to potential impacts when compared to the other alternatives largely due to the distance from a motorized route where vehicle parking could occur (50 feet used for analysis purposes) when compared to the other Alternatives’

### Chapter 3: Affected Environment and Environmental Consequences

distance of a 300 foot allowance for vehicle access to dispersed campsites.

Under all alternatives, when compared against similar vegetation types, potential impacts from *frequent* use within the 0 to 4% slopes of the route's corridor in high, moderate, and low risk areas is less than 1% of each risk setting, respectively. High risk category potential impact ranges from 146 to 272 acres across all alternatives. Moderate risk category potential impact ranges from 11 to 69 acres across all alternatives. Low risk category potential impact ranges from 91 to 585 acres across all alternatives.

In addition, when compared against similar vegetation types, potential impacts from *infrequent* use within the route's corridor in high, moderate, and low risk areas is about <1-2%, <1-5%, and 1-10% of each risk setting, respectively.

Timing of use through management strategies, such as restricting use during spring thaw, can also influence the degree of impact on vegetation. Most of the Beartooth Unit road subgrades are rocky and hard (granitic parent material) where damage from vehicles during spring thaw is less of an issue. Portions of the Red Lodge Creek road are proposed for closure during spring thaw due to the finer grained nature of the soils in that location. Many of the routes in the Pryor Unit do not support loads well when wet (sedimentary parent material). Spring thaw restrictions in the Pryor Unit range from 19 miles in Alternative C, to 58 miles in Alternative B Modified, to 60 miles in Alternative B.

While impacts resulting from camping, vehicles, hiking, mountain biking, and stock use can be locally very significant, the total area of impact is small when compared to various ecosystems of the project area. The level of acceptable impact over a given area is within the discretion of the deciding official for this project as outlined in the regulatory framework for this section. Selection of any alternative would be consistent with the regulatory framework relative to vegetation sustainability at the level of this project's scale.

#### 3.3.4.4 Affected Environment – Weeds

##### ***Introduction***

There is concern that travel management can influence the spread of noxious weeds and invasive plants. Also, the Forest Service has identified invasive species as one of the top threats to the health of National Forests. Additionally, the Forest Service Manual 2080 (1. b.(5)) requires a weed risk assessment be conducted for all projects that could spread weeds. In this document, the terms "weeds", "noxious weeds" and "invasive plants" are used synonymously. We define invasive weeds as any non-native plant, which when established is or may become destructive and difficult to control by ordinary means of cultivation or other control practices. "Noxious" weeds are those non-native plants that are legally listed as weeds by the state or county.

Use of motorized and non-motorized roads and trails contribute to the spread of invasive weeds. Invasive plants can significantly alter the composition of native plant communities resulting in decreases in habitat quality for wildlife, reduced forage for livestock, increased erosion and increased sediment levels in streams, and decreases in aesthetic/recreational quality of wild lands (Sheley, R and J. Petroff. 1999).

The Forest follows many strategies to reduce populations of invasive weeds and to prevent further infestation. For instance: best management practices are followed (Forest Service Manual Section

2080 (FSM2080)); standard and special provisions are included in timber sale contracts; a Forest-wide special order requiring weed-free hay and feed for livestock has been implemented; weed-free gravel in road construction projects is required, reseeding disturbed sites is done with native vegetation, and all districts on the Forest have implemented integrated weed management programs that include prevention through public education, along with biological, mechanical and chemical weed suppression. The Beartooth Weed Management Area is an organization that consists of several agencies and other cooperators in Carbon and Stillwater Counties to facilitate cooperation and to provide more efficient and effective use of funding sources.

***Regulatory Framework***

Nearly all users and interested parties desire complete prevention and eradication of noxious weeds on the Forest, but not necessarily at the expense of their use and enjoyment of the Forest. Neither are there sufficient resources or technology available to completely eradicate existing weed infestations within the planning horizon. The 1987 Custer National Forest Plan (Forest Plan - FP) directs control of noxious weeds as a priority item (FP Page II-3) where the goal is to implement an “integrated pest management program aimed at controlling new starts, priority areas of minor infestations. Holding actions will be implemented on areas of existing large infestations.” The Forest Plan also directs that noxious weed control program be developed for the Absaroka-Beartooth Wilderness Area in order to maintain wilderness values (FP Appendix II, p. 156). Additional regulatory framework for integrated weed management is found in the 2006 Custer NF Weed Management FEIS (project file), which is incorporated by reference into this analysis. The overall goal of is to maintain or restore healthy plant communities that are relatively weed resistant, while meeting other land-use objectives such as forage production, wildlife habitat maintenance, or recreational land maintenance.

***Affected Environment - Weeds***

An extensive scientific literature review was recently conducted for the 2006 Custer NF Weed Management EIS (project file). Weeds have many vectors for dispersal, such as people, wind, water, and animals. Although wind and water contribute to weed dispersal, travel management does not influence these forms of seed dispersal; consequently, they are not addressed in this analysis.

Once introduced into an area, a weed’s ability to spread depends on its physiology and whether this physiology can take advantage of the local soil characteristics and other site conditions such as sunlight, and moisture. Forcella and Harvey (1983) studied Eurasian weed infestations in western Montana. They concluded that some undisturbed ponderosa pine sites were infested with weeds even without disturbance, while subalpine sites were essentially weed free regardless of disturbance, and some Douglas-fir sites were infested only if the site was disturbed.

Different weed species have different physiological attributes that allow them to out-compete native plants. One example is spotted knapweed, which has a competitive advantage over native plants because it may produce chemicals that inhibit the growth of other plants (Bais, et al. 2003).

Site disturbance caused by many factors can provide a competitive advantage to weeds over native plants. Disturbance associated with road building is a good example. Clearing of vegetation for roads provides the opportunity for noxious weeds to establish themselves and out-compete native plants. Once they become established on or along roads, vehicles and animals can transport their seeds the entire length of the road system.

### **Chapter 3: Affected Environment and Environmental Consequences**

Vehicles are vectors of weed spread. However, the number of weeds per vehicle varies substantially. This variability may be associated with characteristics such as the season, the site, and whether the vehicle had been driven on paved or unpaved roads (Lonsdale and Lane. 1994; Hodkinson and Thompson. 1997). One study found that vehicles driven several feet through a spotted knapweed infestation can accumulate more than 2,000 seeds, and ten percent of the seeds remained on the vehicle ten miles from the infestation site (Sheley and Petroff. 1999).

Two different studies looked at the type of route (primary, secondary roads, and non-motorized trails) in relation to the abundance of weeds. A recent study by Gelbard and Belnap (2003) concluded that paved roads had more weeds than gravel roads or two-track roads in Utah's Canyonlands National Park. They determined the process of constructing paved roads disturbed more land (23 feet each side of the road) than the two-track road (3 feet). A similar study in Glacier National Park (Tyser and Worley. 1992) found spotted knapweed and yellow toadflax along primary and secondary roads but not along backcountry (non-motorized) trails. Also, weed abundance was higher within the first 25 meters than at 100 meters, suggesting that the roads were the primary source for weed dispersal.

Research has shown that motorized vehicles tend to have a greater capacity for spreading weeds than non-motorized travel (Tyser and Worley, 1992). The current weed inventory for the Custer National Forest shows this same correlation; more weeds are present along motorized routes than along non-motorized routes. The bulk of the remaining Beartooth District infestations occur in areas that have been burned by wildfire. According to the Custer weed survey data as of 2006, of the infestations occurring near motorized routes, about 70 percent of the infestations occur within the first 100 feet of motorized routes.

#### **Current Weed Conditions**

Some weed species are extremely hardy, competitive, and have the ability to displace native plant species and permanently alter the structure, composition and function of native plant communities. These species are considered very invasive and are typically listed as noxious by States. Of the 2000 plus vascular plant species that have been documented on the Custer National Forest, 14 are considered noxious weeds on the District. Currently there are approximately 394 recorded acres infested with noxious weeds in the District boundary. The infested acres include 367 acres of National Forest System lands and 27 acres of private lands. Sites are generally small and widely scattered with many populations occurring along main National Forest System roads. Canopy density averages between 5-15 percent. Canada thistle, spotted knapweed, houndstongue, and leafy spurge are the predominant noxious weed species, comprising 93 percent of the District inventory.

The following tables display the District's Weed Acreage. Due to some sites having multiple weed species the actual infested acreage may be slightly overestimated.

**Table 3-61. Noxious Weed<sup>44</sup> Acreage Summary by Ownership Within NFS Boundary<sup>45</sup>**

Common Name	Category <sup>46</sup>	USFS Gross <sup>47</sup>	USFS Infested <sup>48</sup>	Private Gross	Private Infested	Total Gross	Total Infested
Leafy Spurge	1	29.5	13.9	5.1	4.2	34.6	18.1
Spotted Knapweed	1	2145.9	127.8	12.8	9.5	2158.7	137.3
Canada Thistle	1	2448.0	142.9	1.0	0.3	2449.0	142.2
Field Bindweed	1	7.4	0.8			7.4	0.8
Houndstongue	1	851.8	57.8	0.9	0.7	852.7	58.5
Dalmatian Toadflax	1	55.4	5.1	3.0	3.0	58.4	8.1
Yellow Toadflax	1	7.1	3.9			7.1	3.9
Oxeye Daisy	1	29.2	3.8			29.2	3.8
Sulfur Cinquefoil	1	201.4	8.5	12.6	9.4	214.0	17.9
Meadow Hawkweed	2	0.1	0.1			0.1	0.1
Common Tansy	2	3.3	3.3			3.3	3.3
Common Mullein	Roadside Weed	Trace					
Musk Thistle	Roadside Weed	Trace					
<b>Total</b>		<b>5779</b>	<b>367</b>	<b>35</b>	<b>27</b>	<b>5814</b>	<b>394</b>

The general locations of noxious weeds in the project area occur mostly along motorized routes. Detailed locations of weeds on the District are located in the project record (CNF Weed Management FEIS).

**Human Influence**

People and their activities have been, and will continue to be, the greatest influence on the introduction and spread of noxious weeds. If education and prevention efforts are effective, the introduction of new weeds and the spread of existing weeds will be reduced, but not eliminated. It is not practical to contact, inform or change attitudes of all users prior to their arrival onto the National Forest.

Human activities of grazing, timber harvest, road construction, recreation (camping, fishing, hunting, trail riding, back packing) and forest administration contribute, to various degrees, to the introduction and spread of weeds. Motorized vehicles and equipment contribute the most to introduction and spread of noxious weeds because of vehicle mobility and size, and/or distance of travel within a given time. Weed seeds become stuck in tire tread and in under carriage mud, pulled off and lodged in the framework, drug out upon unloading from passenger and cargo compartments or deposited with contaminated cargo (e.g., gravel, hay, straw).

Backpackers and workers can spread weeds by transporting weeds or seeds caught in the lugs of

<sup>44</sup> As Of 6-15-2006

<sup>45</sup> Acreage falls within Beartooth Weed Management Area.

<sup>46</sup> Category 1, Wide Spread, Category 2, Rapid Spreading, Category 3, New Invader

<sup>47</sup> Gross acreage is a mapped unit around infestations and does not necessarily represent actual infested acres.

<sup>48</sup> Infested acreage is the estimated infested portions of an overall gross mapping unit and more closely represents areas receiving actual treatment.

### Chapter 3: Affected Environment and Environmental Consequences

boots, fabric of clothes, or in equipment. Livestock spread weeds by having seeds caught in the hair, transported in stomach contents (if the animal has not been on clean weed seed free feed for several days prior to coming to the Forest), or in the manure in stock trailers.

Where weed seed is deposited depends on how far and where the person travels. Most often it is along system roads or trails, but some people travel off of the system roads and trails depositing weed seed in isolated and hard to find places. The amount and speed of introduction and spread of noxious weeds depends upon the: amount, type and location of use; the amount, type and location of weeds; origination of the user, and effectiveness of noxious weed prevention and control measures.

#### Trend

Since the late 1800's exotic plant species have been spreading across the Pacific Northwest and Northern Great Plains. It is clear when studying distribution records of exotic plant species over time that the plants are increasing and expanding their range once they are established. Based on these historic trends, these patterns of expansion will continue due to transport of seeds from increasing intercontinental travel and trade, and through continued disturbance on all lands (through agricultural, residential, recreational, and commercial developments). Nationally, National Forest System lands have an estimated six to seven million acres that are infested with noxious weeds. This figure is increasing at an exponential rate of 8-12 percent per year. For example, 10 acres of spotted knapweed left unmanaged today in a disturbed environment has the potential of increasing to 1,000 acres in ten years.

The following table displays an increase in inventory and is due, in large part, to large scale wildfires and better inventory. The total cost of control is greater than the Forest is budgeted to accomplish on an annual basis. In addition to annual appropriations, various grants and partnerships have been successful in adding resources to annual control measures. Treatment priority criteria are used because resources are generally not sufficient to treat all infestations (CNF Weed Management FEIS, 2006). Spread vector areas such as roads and trailheads, are high in priority for treatment.

**Table 3-62. Inventoried Net Acres**

Species	1985 Inventoried Net Acres <sup>49</sup>	2006 Inventoried Net Acres
Leafy Spurge	3	14
Spotted Knapweed	114	128
Dalamtian toadflax	12	5
Canada Thistle	6	143
Sulfur cinquefoil	-	9
Yellow toadflax	-	4
Oxeye Daisy	-	4
Common Tansy	-	3
Houndstongue	-	58
Field Bindweed	-	0
<b>Total</b>	<b>135</b>	<b>368</b>

The Custer National Forest could experience further invasion of spotted knapweed, leafy spurge,

<sup>49</sup> The 1985 inventory was taken from the 1986 Custer Forest Plan.

houndstongue, Canada thistle, sulfur cinquefoil, Dalmatian toadflax, and/or yellow toadflax in the very near future, especially in light of some of the large scale wildfires that have occurred and will likely continue to occur. Ground disturbing catastrophic events, such as a wildfire, create an environment most prone to the spread of noxious weeds. Weeds typically establish most quickly on previously forested areas having burned under high intensity and high severity conditions. Prior to recent large wildfires, shading by conifers inhibited noxious weeds from spreading into areas with unburned overstories. The recent large wildfires that occurred on the District<sup>50</sup> opened the overstory forest canopy and reduced understory vegetation on about 18% of the District landscape which allowed a prime seedbed for competing weeds. Post-fire monitoring indicates a definite increase in the number of weeds, especially Canada thistle, Spotted Knapweed, and Leafy Spurge following the fires. These large scale fire areas are most prone to long-term invasion.

Once established, the noxious weed can then proliferate and spread using its most effective adaptation. Some weed species produce seeds at an enormous rate (i.e., spotted knapweed). Seeds of various species are adapted to facilitate different modes of travel. Some are sticky or have hooks and barbs that attach themselves (i.e., houndstongue), some are light and feathery and others are edible. Leafy spurge extends its roots up to 40 feet deep, re-sprouting from nodes along the root system, and have seeds that “explode” from the plant. Because of these and other adaptations, seeds are often readily transported by natural factors of wind, water, birds, or wildlife.

To counter the continuing spread, the Forest has had an active prevention and control program to reduce the impacts of invasive noxious weeds for over 25 years. Prevention efforts have included: 1) public education (identification and impacts of noxious weeds, risks and methods of spread, and ways of reducing the risk) including speaking to schools and special interest groups, posting signs and educational materials, sponsoring media advertisements, and visiting with members of the public at campgrounds and trailheads; 2) enforcing a special order requiring certified weed free feeds on all NFS lands within the state of Montana; 3) implementing Best Management Practices (BMPs) such as doing risk assessments and adding appropriate prevention requirements in contracts, permits and project plans (e.g., washing equipment, minimizing soil disturbance, certified weed free seed, etc); 4) restricting motorized cross-country travel on all NFS lands per the Tri-state OHV Decision by the Regional Forester in 2001 and the National OHV Policy CFRs issued in December 2005.

Control efforts have included: mechanical, chemical, and biological. Mechanical hand-pulling provides partial control of weeds, reducing spread and density of weeds by reducing seed production, where the use of chemicals is not appropriate. These areas generally include campgrounds, administrative sites, areas of low infestations, and in areas where sensitive plant species are known to exist.

Chemical weed control has historically been the primary tool for noxious weed control on the project area. Chemical weed control is done in accordance with the 2006 Final Environmental Impact Statement for the control of noxious weeds on the Custer National Forest, and the label constraints for the regulated herbicide being applied. Various factors (location, funding, weather, fire activity, new infestations) determine the number of acres that are treated each year. Priority of treatment has been: 1) new, small infestations, especially a new species; 2) road corridors and trailheads; 3) large upland

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<sup>50</sup> 1988 Storm Creek – 56,856 acres, 1991 Robertson Draw- 3,300 acres, 1996 Shepard Mountain – 14,890 acres, 2000 Willie - 1,503 acres, 2002 Red Waffle - 5,859 acres, and 2006 Derby Mountain-15,484 acres

infestations.

**Effects Analysis Methodology**

It is difficult to show that different types of motorized vehicles spread weeds at different rates. Also, locations of weed infestations on the Beartooth District have a strong correlation to motorized routes. Consequently, all forms of motorized vehicles were grouped together in the risk analysis. A route was considered to be at a higher risk to weed invasion if it was used by motorized vehicle than if it was used by non-motorized vehicle.

The degree of risk from some of the most threatening species can be evaluated when completing project weed risk assessments. The susceptibility of an area to species' establishment, the level of threat to susceptible areas, and the probability of exposure of each site to plant propagules affecting dispersal can be evaluated. Overlaying weed inventories and designated public motorized routes, with this susceptibility assessment can further identify areas that are potentially at risk from invasion.

**Level of Risk**

Susceptibility, threat, and probability of exposure can be combined to model the degree of risk across a project area from some of the most threatening exotic species. Proposed disturbance information can be combined with vegetation data to identify which areas are susceptible to invasive plant species analyzed.

Three variables were used to determine risk level; susceptibility, threat, and exposure.

**Table 3-63. Level of Risk**

Susceptibility	Threat	Exposure	Risk
Low to No Susceptibility	Low to None	Any level	No to Low Risk
Susceptible	High	High	High

A risk assessment (Mantas, 2003) was completed for several weeds occurring in the USFS Northern Region, East of the Continental Divide ([http://www.fs.fed.us/r1/cohesive\\_strategy/datafr.htm](http://www.fs.fed.us/r1/cohesive_strategy/datafr.htm)). Data, literature sources, and expert opinion were used to determine if a species could become established in each vegetation type. Expert opinion came from a panel of botanists and ecologists who were convened to review the findings from data and literature. This information was referenced in determining area susceptibility and threat levels.

In addition, the three variables outlined above were used to model estimated risk. A spatially explicit analytic model using a Geographic Information System (GIS) was used to map and calculate the acres at risk to invasive weeds (Project Record).

**Weed Susceptibility**

Susceptibility is an estimate of the vulnerability of different habitats to colonization and establishment of a weed species. Even without any disturbance on the landscape, some areas are susceptible to the infestation by invasive plants. The District supports a very diverse mixture of plant communities. Vegetation runs from open, dry grasslands and sagebrush/grass in the valley bottoms, to dense lodgepole, subalpine fir and Douglas fir forest in the mid elevations. Subalpine/alpine grasslands, tundra and rock barrens dominate the high elevations. Wetlands and riparian areas are scattered throughout the Forest.

Forested and high elevation vegetation dominates the majority of the lands on the District. However, the areas dominated by lower elevation non-forest vegetation encompass the highest species and plant community diversity. Some of these areas are also at the greatest risk for invasion by exotic species. Because most of the weed species that occur on the District are considered aggressive in most non-alpine, non-forested, and sparsely forested settings, these areas are considered to be in the susceptible class.

Approximately 17% percent or roughly 92,500 acres are naturally susceptible to weed invasion on the District. The following table quantifies the acreage at risk of invasion by cover type if the current weed populations are allowed to grow unchecked.

**Table 3-64. Cover Type Susceptibility to Weed Infestation**<sup>51</sup>

Cover Type	Beartooth District
	Open or Open Canopied Ac. Below 8000'
Non-irrigated Ag Land	60
Irrigated Ag Land	15
Non-native Grassland	1037
Very Low Cover Grassland	11983
Low / Moderate Cover Grassland	27030
Moderate / High Cover Grassland	7367
Mesic Shrublands	2260
Xeric Shrublands - Sagebrush	6960
Aspen	8657
Mixed Broadleaf / Cottonwood	1058
Whitebark Pine	4968
Limber Pine	12549
Ponderosa Pine Open Canopy <25%	1300
Douglas Fir Open Canopy <25%	5990
Juniper	1300
<b>Acreage Susceptible to Weeds</b>	<b>92534</b>
<b>Vulnerable Acreage % of Beartooth District (539,771 Total Ac)</b>	<b>17%</b>

*Alpine Plant Communities:* Although exotic species can occur on these sites, these communities are generally not susceptible by the species currently identified as invaders because these sites are incompatible for the growth and establishment of the invader species.

*Montane and Foothill Grassland and Shrubland:* Much of the montane and foothill grasslands have some level of infestation. With any degree of disturbance or introduction of exotic seeds, these sites are susceptible. Shrublands are also susceptible to exotic species invasion, because environmental conditions in these vegetation types are very similar to the conditions where many invader species originated.

<sup>51</sup> Acreage is within NF Boundary and includes private and state inholdings. Based on Silc3bnd04 Grids (postfire version CNF cover types).

### Chapter 3: Affected Environment and Environmental Consequences

*Wetlands and Riparian Communities:* Riparian / Wetlands are susceptible to weed invasion. Some wetlands tend to out-compete many invasives, while other riparian areas in a drier setting are at higher susceptibility to invasion. A small amount of inventoried weeds are found in riparian systems (mostly Canada thistle). Canada thistle can be deleterious to native wetland and riparian communities of the District. Canada thistle grows in dense colonies of disturbed wet meadows and riparian areas, especially areas affected by wildfire. Other wetland/riparian weeds that have not been found on the District include purple loosestrife, reed canarygrass, tall buttercup, and water milfoil. Purple loosestrife and reed canarygrass has been found in adjacent lands within Carbon County, Montana. Tall buttercup and water milfoil have not been found in any wetland or riparian environments in or near the project area. Although leafy spurge is not considered a moisture-loving plant, it can flourish in well-drained river cobbles and gravel bars along stream courses.

*Coniferous Forest and Broadleaf Plant Communities:* Most closed canopy environments of common forest types found on the District are not conducive to invasion and infestation by exotic species. Even those species that can flourish in a coniferous forest setting need more sunlight, some degree of disturbance, or a combination of the two. However, in more open and / or disturbed conditions, nearly all but the wetland/riparian invaders can occur.

Many invader species are more successful in the more open canopy, drier forest types (dominated by Douglas fir or ponderosa pine), especially when there is some type of disturbance such as a road, skid trail, livestock grazing, or high recreational use. On the District, the most noticeable and widespread invaders in this situation are spotted knapweed, houndstongue, Canada thistle, Dalmatian toadflax, and leafy spurge. Other species, however, are rapidly spreading such as sulfur cinquefoil.

To help assess indirect effects for Alternatives A, B, No Action and B Modified, a 400 foot buffer from each side of a motorized route was used. This accounts for allowable dispersed camping within 300 feet of a route, along with a 100 foot addition for potential weed spread beyond the 300 foot dispersed camping allowance. For Alternative C, a 100 foot buffer from each side of a motorized route was used. This accounts for allowable parking within 50 feet of a route, along with a 50 foot addition for potential weed spread beyond the 50 foot parking allowance. The assumption used for only a 50 foot addition to allow for weed spread is less than the 100 foot addition to the other alternatives given that there is likely to be less duration of activity and less site disturbance by parking versus dispersed camping.

These specific Alternative buffers were intersected with areas rated as susceptible to weed infestation in the Table above (entitled Cover Type Susceptibility to Weed Infestation). The indirect effect for each alternative is based on the total number of acres susceptible to weeds that intersected the respective Alternative's buffer of motorized routes. For each Alternative, about half of the buffered areas are susceptible to weed infestations. The areas of high susceptibility are summarized in the following Table:

**Table 3-65. Cover Type Susceptibility to Weed Infestation by Alternative**

Cover Type Below 8000'	Alternative A – 400' Buffer Acres	Alternative B – 400' Buffer Acres	Alternative C – 100' Buffer Acres	No Action Alternative – 400' Buffer Acres	Alternative B Modified– 400' Buffer Acres
Ag Land	4	5	0	3	4
Grassland	9870	7293	1498	8851	8789
Moist Shrub	696	566	80	482	646
Dry Shrub	1765	1222	314	1344	1388
Mixed Broadleaf	1266	867	152	1144	1283
Forested - Open	1689	1076	167	1263	1180
<b>Total Susceptible Acres</b>	<b>15290</b>	<b>11029</b>	<b>2211<sup>52</sup></b>	<b>13087</b>	<b>13290</b>
<b>Percent of Susceptible Route Buffer Acres Compared to All Susceptible Acres (92,534 Acres)</b>	<b>17%</b>	<b>12%</b>	<b>2%</b>	<b>14%</b>	<b>14%</b>

*Weed Threat:* Threat refers to the estimated degree of change in structure, function or composition that a weed species would have on a potential natural vegetation type. Because the noxious weed species that occur on the District are considered aggressive, they all occur in the high threat class.

Other weeds species that are less aggressive and less of a threat are considered to be in the low to no threat category.

*Weed Exposure:* Exposure refers to the probability that an area would be exposed to seeds from noxious weeds. The exposure classes used in this analysis are high exposure (motorized routes designated for public use) and low to no exposure (motorized routes designated for administrative use only<sup>53</sup> and non-motorized travel).

An average of 70% of a road related infestations occur within the first 100 feet of the buffer, 82% occurs within the first 300 feet, and 95% occurs within the first 400 feet of motorized routes.

A 400 foot buffer from motorized routes was used to assess direct effects from exposure to weeds since most of the weed infestations, associated with motorized routes, are found within this distance. There are a few infestations that go somewhat beyond the motorized routes, but to a large degree, the remaining weed infestations are associated with effects from wildfire or in areas extremely difficult to access for weed control efforts (steep, rocky, remote). The effects analysis assumption used is that weed establishment in areas susceptible to weed infestation can spread within this 400 foot distance

<sup>52</sup> For comparison, a 400 foot buffer under alternative C equates to about 3,121 acres.

<sup>53</sup> Motorized routes designated for administrative use only (between 30 and 73 miles, varied by alternative) fall within a controlled setting either through permit with associated terms and conditions or use by Forest Service employees where best management practices are required. Also, these routes tend to have less frequent travel and low duration of use which also lessen impacts compared to more frequent use by the general public who always are not aware of protective measures to take in preventing and combating noxious weeds.

**Chapter 3: Affected Environment and Environmental Consequences**

within the ten year planning horizon of the travel management decision if left untreated. However, road related infestations are given high priority for treatment since motorized routes are typically primary vectors for spread. Exposure to weed spread within 400 feet of a motorized route is less than that portrayed in the following table due to the likelihood of weed treatment and the fact that the bulk of road-related infestations occur within the first 100 feet. Therefore, the 400 foot buffer was used as a conservative approach for an analysis measurement.

**Table 3-66. Acres Current Weed Infestations within 400 Feet of Motorized Routes**

Common Name	Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified
Canada Thistle	86	81	73	98	81
Dalmatian toadflax	3	1	0	3	1
Other	Trace	Trace	Trace	Trace	Trace
Yellow toadflax	Trace	Trace	Trace	Trace	Trace
Field Bindweed	6	5	5	19	5
Houndstongue	48	45	39	53	45
Leafy Spurge	5	4	4	4	4
Meadow Hawkweed	21	21	21	21	21
Oxeye Daisy	4	4	4	3	4
Spotted Knapweed	76	71	68	75	71
Common tansy	Trace	Trace	Trace	Trace	Trace
Sulphur cinquefoil	5	5	4		5
<b>Total Infested Acres</b>	<b>254</b>	<b>236</b>	<b>218</b>	<b>277</b>	<b>236</b>
<b>400' Route Buffer Percent of 368 Inventoried Acres of Weeds<sup>54</sup></b>	<b>69%</b>	<b>64%</b>	<b>59%</b>	<b>75%</b>	<b>64%</b>

**3.3.4.5 Environmental Consequences – Weeds**

*Direct and Indirect Effects-Weeds*

**Effects Common to All Alternatives**

*Types of Use:* Research has shown that motorized vehicles tend to have a greater association for spreading weeds than non-motorized vehicles (Tyser and Worley. 1992). The current weed inventory for the Custer National Forest also shows this same correlation; more weeds are present along motorized routes than along non-motorized routes. This may be because of the greater number of vehicles and greater area traveled per unit contributing to the amount of use, rather than from the nature of the vehicle itself. Greater surface area coming in contact with weeds and greater area of ground disturbance allowing seed germination may be contributing factors. All forms of motorized vehicles were grouped together in the risk analysis. The route was considered to be at a higher risk to weed invasion if it was used by motorized vehicle than if it was used by non-motorized vehicle.

Pack and saddle stock are significantly less contributors to weed introduction and spread only if weed seed free feed is fed several days prior to and during the time they are on the Forest. The special order requiring certified weed free feed during the time on the Forest has been partially effective, but there

<sup>54</sup> Most of the remaining acreage not occurring adjacent to motorized routes are a result of wildfire effects or animal vectors.

is little evidence that feeding weed seed free feed several days prior to coming to the Forest has been largely adopted by visitors. Increased weed infestations tend to occur at trail heads and campgrounds where vehicles are parked and livestock are unloaded, fed and tied. The origin of the visitor (i.e., from a weed infested area) is a major factor in the introduction of new weed species, or new infestations of existing weed species, without regard to the type of use.

*Seasons of Use:* Under all alternatives, portions of proposed seasons of use occur during the growing season and when seeds are ripe. Plant propagules and seeds can be attached to vehicles, livestock, and humans, and potentially be spread, regardless of each alternative’s seasons of use.

**Direct and Indirect Effects-Weeds**

Weeds spread by way of many different vectors; animals, water, wind, and people. Since motorized travel routes have a very high association with weed occurrence (Tyser and Worley. 1992; Gelbard and Belnap. 2003; Banks, et. al. 2004) it seems reasonable to conclude that motorized vehicles function as a major vector.

The direct effect of motorized travel routes within susceptible areas for weed invasion is an increase in weed density and distribution. The effect of treating weeds was analyzed in the recent Custer National Forest Weed Management Final EIS (2006); this analysis tiers to that document.

The following table is used to make Alternative comparisons. No Action Alternative has the most buffer acres currently infested with weeds (277 acres), and Alternative C produce the least (218 acres), for a range of 59 acres. Alternatives A, B, B Modified, and No Action are similar in terms of area impacted with motorized travel and existing weeds.

**Table 3-67. Weed Infestations and Public Motorized Routes**

	Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified
Miles of Designated Public Motorized Routes	341	261	198	287	267
Total Susceptible Areas	15,290	11,029	7,808	13,087	11,097
Total Infested Acres within 400’ Buffer	254	236	218	277	236
Percent Infested within Total Susceptible Buffer	1.7%	2.1%	2.8%	2.1%	2.1
Percent of Infested within 368 Inventoried Acres of Weeds <sup>55</sup>	70%	64%	59%	75%	64%

The following table summarizes indirect effects. Indirect effects include the risk of a motorized vehicle introducing weeds into an area that is susceptible to weed infestation. Once weeds are introduced into the susceptible area, it would continue to spread and displace native plants, even if the area is not disturbed.

Alternative A has the greatest area at high-risk of weed invasion near motorized travel routes (15,290 acres), while Alternative C has the least (2,211 acres), for a range of 13,079 acres. Alternatives B, B Modified, and the No Action Alternative are somewhat similar to Alternative A in regard to number

<sup>55</sup> Most of the remaining acreage not occurring adjacent to motorized routes are a result of wildfire effects or animal vectors.

### Chapter 3: Affected Environment and Environmental Consequences

of acres at risk (between 11,029 and 15,290 acres) in comparison the Alternative C's 2,211 susceptible acres. All Alternatives have about one half of the motorized routes going through susceptible areas. The percent of susceptible buffer acres under Alternatives A, B, B Modified, and No Action range between 12 and 17% of all District susceptible acres while Alternative C's susceptible acres is 2% of all District susceptible acres.

**Table 3-68. Cover Type Susceptibility to Weed Infestation by Alternative**

Cover Type Below 8000'	Alternative A – 400' Buffer Acres	Alternative B – 400' Buffer Acres	Alternative C – 100' Buffer Acres	No Action Alternative – 400' Buffer Acres	Alternative B Modified
Susceptible Acres	15290	11029	2211	13087	11,097
Percent of Susceptible Route Buffer Ac. Compared to All Susceptible Ac. (92,534)	17%	12%	2%	14%	12%

#### *Cumulative Effects-Weeds*

All of the activities identified as past, present, and future activities in the beginning portion of this chapter, have the potential to affect the spread of noxious weeds.

Most of the existing weeds on the District are associated with past resource management or activities. The common elements associated with most weed infestations are ground disturbance, wildfire, and use of motorized vehicles. Once the weeds are introduced into an area they generally continue to spread into adjacent areas. The current weed treatment programs were addressed in the recent Custer National Forest Weed Management EIS (2006). Historically, the District has treated 150 to 200 acres of weeds annually, out of the 368 inventoried infested acres. The acres treated could increase if more funding becomes available.

Weeds will continue to be spread as a result of resource management and other human activities. The recently developed mitigation measures that are addressed in the Forest Service Manual 2080 are being implemented and will help to slow the spread of weeds.

Other travel management planning decisions on the Lewis and Clark, Gallatin, Helena, Beaverhead-Deerlodge National Forests, Bureau of Land Management, State of Montana and private lands will have varying effects, depending upon the decisions made, on the spread of noxious weeds to, and in, the project area. The more travel is restricted in those decisions there could be increased use and potential of weed spread in the analysis area.

The weed risk assessment considered high-risk areas as those areas that do not require any additional disturbance in order for weeds to invade (e.g., natural meadows and grasslands). If a disturbance (such as a fire or timber harvest) occurred in a high-risk area with an existing weed problem and the area has motorized routes, the cumulative impact will exasperate the problem. In this situation the weeds may spread quickly to new areas and may rapidly increase in density. For example, after a wildfire burns an area with existing weeds, the first plants to colonize the site are usually the invasive weeds and they quickly displace native plants. Having motorized travel in these areas will help to carry the weeds to new locations. Conversely, the motorized route will provide rapid access for weed treatment provided that funding is available for treatment. The best management practices outlined in

Forest Service Manual 2080 will help to reduce the spread rate but it will not prevent the spread altogether.

On the other hand, if a severe disturbance occurs in a low-risk area (e.g., forested environment), the area could support invasive weeds until new vegetation forms a dense canopy cover and out-competes the weeds (except for a few species that grow under a closed canopy or shaded environment such as orange hawkweed).

Any ground or severe vegetation disturbing activity, such as mining has the potential to increase the spread of noxious weeds. This risk comes from: 1) the equipment and people and, 2) the reduction and/or temporary elimination of the vegetation cover, providing a scarified seed bed and less vegetation competition, resulting in a higher chance of weed seed germination and weed establishment.

Current on-going activities may have a cumulative negative effect by increasing the introduction and spread of noxious weeds. Livestock grazing may transport weed seed between private or other lands and the Forest, or from place to place on the Forest, by carrying seed in the hair or digestive tract. Livestock may also increase seed germination by reducing vegetation competition in areas of excessive grazing and by ground disturbance in areas of excessive trailing. Wildlife and birds can similarly transport weed seed in hair, feathers and digestive tracts. Weed seeds are also transported by wind and water and wildfire provides improved germination.

All of these specific activities and natural forces combine with activities affected by travel management planning to cumulatively introduce and spread noxious weeds in the project area.

#### **3.3.4.6 Conclusion - Weeds**

Since there is a high association with motorized routes and weed infestations, Alternatives A and No Action have a higher probability for weed spread, Alternative C has a lower probability, and Alternatives B and B Modified have an intermediate probability for weed spread.

Many agents will continue to transport weeds and weed seeds, regardless of the decision on travel, but the fewer the agents, the less weed spread. However, removing all use would defeat the purpose of the public lands, and is not public policy, and still would not totally eliminate the spread of weeds. Therefore, noxious weed management requires a balance of use restriction, public education, implementation of best management practices (BMPs), and effective treatment measures. The more the public voluntarily accepts and implements weed prevention practices, less restrictions and expensive weed control will be required.

Per existing policy, a noxious weed risk analysis will be done for each project and appropriate BMP measures (FSM 2080, R1 Supplement 2000-2001-1) included in each environmental analysis, permit, and contract and will help reduce cumulative effects. Each project and public use area will be monitored for noxious weeds and the implementation and effectiveness of BMP mitigation measures, prioritized by the degree of risk. The Forest Service will continue prevention, public education and appropriate weed treatment measures.

All action alternatives are consistent with the Laws, Regulations, Policy, and Federal, Regional, State,

### Chapter 3: Affected Environment and Environmental Consequences

and Custer Forest Plan. Of these regulatory directions, only the FSM 2080 addresses travel management with respect to weed management. A weed risk assessment is part of this analysis and meets this manual requirement.

#### 3.3.4.7 Affected Environment – Sensitive Plants

##### **Introduction**

The three plants listed on the Threatened or Endangered Species List as “threatened” and occurring in Montana are water howellia (*Howellia aquatilis*), Spalding’s catchfly (*Silene spaldingii*), and Ute ladies’-tresses (*Spiranthes diluvialis*). Species occurrences and suitable habitat are only known on Forests west of the Continental Divide for water howellia and Spalding’s catchfly, and in the Missouri, Jefferson, Beaverhead, Ruby, and Madison River drainages for Ute ladies’-tresses. No further analysis will be conducted for the threatened species.

Forest Service sensitive species are defined as “Those plant and animal species identified by a Regional Forester for which population viability is a concern, as evidenced by: a) significant current or predicted downward trends in population numbers or density or b) significant current or predicted downward trends in habitat capability that would reduce a species’ existing distribution.” The current USFS Northern Region (R-1) sensitive plant species list was developed October 28, 2004.

Many species are listed as sensitive for the Custer National Forest. Portions of the Custer Forest fall within various ecological settings, ranging from the Northern Great Plains, the Northern Great Basin, and the Northern Rocky Mountains. As a result of a review of existing information relative to species extent of distribution and ecological requirements, a list of sensitive plant species have been screened as to its potential habitat by district. As a result, not all Custer listed sensitive species can be found on all three districts. Only species with potential habitat on the Beartooth District are addressed in the analysis.

##### **Regulatory Framework**

The 1987 *Custer National Forest Land and Resource Management Plan* (Forest Plan) provides management guidance to natural resource managers within the framework of Congressional intent (36 CFR 217). The Forest Plan provides general management direction (page 3) that indicates; "the goal for the management of Threatened and Endangered plant and animal species is to provide habitat that contributes to the recovery of the species". Page 17 of the Plan indicates that no federally listed threatened or endangered plant species occur on the National Forest units of the Custer National Forest at the time the Forest Plan was prepared (1986). Since that time, there continues to be no plants designated as Threatened or Endangered that occur within the Custer National Forest. Within the framework of the Custer Forest Plan, direction is given to manage for retention of habitat of unique plant species which include sensitive species (Forest Plan, p. 20 and Appendix VII).

*Forest Service Manual 2670.22 Sensitive Species* provides the following direction for sensitive plants: 1) Develop and implement management practices to ensure that species do not become threatened or endangered because of Forest Service actions; 2) Maintain viable populations of all native and desired nonnative wildlife, fish, and plant species in habitats distributed throughout their geographic range on National Forest system lands, and 3) Develop and implement management objectives for populations and/or habitat of sensitive species.

Forest Service policy regarding biological evaluations is summarized in Forest Service Manual (FSM) 2672.4. The intent of the biological evaluation process is to assess the potential impacts of proposed management activities, and ensure that such activities will not jeopardize the continued existence of species listed, or proposed to be listed, as Endangered or Threatened by the U. S. Fish and Wildlife Service and species designated as sensitive by the Regional Forester.

**Affected Environment – Sensitive Plants**

Only species with known locations or potential habitat on the District are addressed in the analysis and outlined in Table 3-69. Six species are known to occupy habitat and have documented occurrences in the District. An additional five species are suspected to be present on the District.

During public scoping of this analysis, Platte cinquefoil (*Potentilla plattensis*) was identified as a potential species of concern located within the Pryor Mountains. Although not listed as a Northern Region Sensitive plant species, it has been identified as a BLM sensitive species. However, there is currently a recommendation from Montana Natural Heritage Program (MNHP) for BLM to de-list this species since the species has not been conclusively documented from BLM administered lands to date (MNHP, 2006). Reports of the species are due to the large imprecision associated with the mapping of historical collections (1937) with vague locality data. During public scoping, an unsubstantiated population was indicated to occur along the Punchbowl Road # 2144. Since the species status and known locations are in question, and to be on the conservative side, Platte cinquefoil will be addressed in the analysis. Its habitat occurs in moist to wet alkaline meadows within the sagebrush ecosystem, commonly associated with Baltic rush and shrubby cinquefoil.

**Table 3-69. R-1 Sensitive Plant Species - Beartooth District, Custer National Forest**

Common and Scientific Name	Type <sup>56</sup>	Global Rank <sup>57</sup>	State Rank <sup>57</sup>	Habitat	Closest known population	Flowering Period	Fruiting Period
<b>RIPARIAN</b>							
Giant helliborine <i>Epipactis gigantea</i>  Suspected – Possible Habitat	3	G4	S2	Streambanks, fens with springs/seeps, often near thermal waters. 2,900 – 6,200' elevation. Perennial forb	Bluewater Fish Hatchery – approx. 15 air miles from Beartooth RD	June – Early August	June – Early August
Mealy Primrose <i>Primula incana</i>  Suspected - Historically Documented <sup>58</sup> (1923)	3	G4 / G5	S2	Wet meadows, springs and shores, often where alkaline; calcareous bog meadows; wet meadows & quaking bogs; Not found in alpine or subalpine areas. Perennial forb	Historically known to occur near East Rosebud Lake	May to June	Through July

<sup>56</sup> Scale of risk, per Region 1 Species at Risk Protocol: Type 1: Threatened, Endangered or Proposed (ESA); Type 2: Range-wide Imperilment; Type 3: Regional/State Imperilment.

<sup>57</sup> The international network of Natural Heritage Programs employs a standardized ranking system to denote global (range-wide) and state status (Association for Biodiversity Information 2001). Species are assigned numeric ranks ranging from 1 (critically imperiled) to 5 (demonstrably secure), reflecting the relative degree to which they are “at-risk”. 1 = Critically imperiled because of extreme rarity and/or other factors making it highly vulnerable to extinction; 2 = Imperiled because of rarity and/or other factors demonstrably making it vulnerable to extinction; 3 = Vulnerable because of rarity or restricted range and/or other factors, even though it may be abundant at some of its locations; 4 = Apparently secure, though it may be quite rare in parts of its range, especially at the periphery; 5 = Demonstrably secure, though it may be quite rare in parts of its range, especially at the periphery; T = Rank for subspecific taxon (subspecies, variety, or population); appended to the global rank for the full species, e.g. G4T3.

<sup>58</sup> Historically documented means that the species was historically known to occur, but not recently documented.

**Chapter 3: Affected Environment and Environmental Consequences**

**Table 3-69. R-1 Sensitive Plant Species - Beartooth District, Custer National Forest**

Common and Scientific Name	Type <sup>56</sup>	Global Rank <sup>57</sup>	State Rank <sup>57</sup>	Habitat	Closest known population	Flowering Period	Fruiting Period
Small yellow lady's slipper <i>Cypripedium parviflorum</i>  Suspected - Historically Documented (1922-1937)	3	G5	S2 S3	Fens, damp mossy woods, seepage areas, and moist forest-meadow ecotones in valley to lower montane. 2,520 – 6,200' elevation. Perennial forb	Stillwater Co. (State)– within close proximity to Beartooth Ranger District boundary	May- June	July
Three-ranked Humpmoss <sup>59</sup> <i>Meesia triquetra</i>  Suspected - Historically Documented (1971)	3	G5	S2	Rich fens having surface waters with high pH and calcium concentrations. It can also be found in alkaline swampy birch and willow woods. Bryophyte	West Fork Rock Creek		
Hiker's gentian <i>Gentianopsis simplex</i>  Known (Documented 1989 – 1991)	3	G4	S1	Fens, meadows, and seeps, usually in areas of crystalline parent material, in the montane and subalpine zones. 4,460 – 8,400' elevation. Annual small forb	East Rosebud	July - August	July - August
<b>MONTANE SAGEBRUSH / GRASSLAND</b>							
Jove's Buttercup <sup>60</sup> <i>Ranunculus jovis</i>  Known (Documented 2005 – 2007)	3	G4	S2	Sagebrush grasslands to open forest slopes in the montane and subalpine zones. Perennial forb	Head of Crooked Cr./Commissary-Pryor Mtns.	April - June	April - June
Beartooth goldenweed <i>Haplopappus carthamoides var. subsquarrosus</i>  Known (Documented 1993 – 2006)	2	G4G 5T2 T3	S2	Grasslands and sagebrush steppe on sandy calcareous soils in the foothills and montane zones. 5,520 – 7,200' elevation. Perennial forb	Main Fk Rock Cr, Robertson Draw, and Sage Creek	July - August	July - August
<b>EXPOSED LIMESTONE</b>							
Shoshonea <i>Shoshonea pulvinata</i>  Known (Documented 1084 – 1999)	2	G2G 3	S1	Open, exposed limestone outcrops, ridgetops and canyon rims, in thin rocky soils. 6,440 – 7,800 elevation. Perennial forb	Pryor Mountains and BLM Meetetsee Spires	May - July	May - July
<b>MONTANE - MOIST</b>							

<sup>59</sup> *Meesia triquetra*, although not listed in the Region 1 2004 sensitive plant list for the Custer NF, has been added due to new information that there are suspected populations of this regional sensitive species on the District. Concurrence by Regional Botanist, July 2007.

<sup>60</sup> *Ranunculus jovis*, although not listed in the Region 1 2004 sensitive plant list for the Custer NF, *R. jovis* has been added due to new information that there are known populations of this regional sensitive species on the District. Concurrence by Regional Botanist, June 2005.

**Table 3-69. R-1 Sensitive Plant Species - Beartooth District, Custer National Forest**

Common and Scientific Name	Type <sup>56</sup>	Global Rank <sup>57</sup>	State Rank <sup>57</sup>	Habitat	Closest known population	Flowering Period	Fruiting Period
Musk-root <i>Adoxa maschatellina</i>  Known (Documented 1994-2006)	3	G5	S2	Vernally moist places in the mountains at the bottom of undisturbed, open rock slides that have cold air drainage. Generally shaded, montane to subalpine. 4,400-6,000' elevation. Musky-scented perennial forb.	East Rosebud Creek and Spread Creek.	June-early July	Through July
Hall's rush <i>Juncus hallii</i>  Suspected – Possible Habitat	3	G5	S2	Moist to dry meadows and slopes from valley to montane. 4,000 – 8,860' elevation. Perennial grass-like	Gallatin NF – approx. 80 air miles	July - August	July - August
<b>ALPINE – MOIST SHRUB</b>							
Barratt's willow <i>Salix barrattiana</i>  Known (Documented 1970 – 1993)	3	G5	S1	Forms extensive thickets in alpine habitats. Grows on boggy meadows, moist open hillsides in mountains, lakeshores, streambanks, rock slides and recent alluvial deposits. Soils range from very calcareous to very acidic. 6,800 - 10,500 elevation. Shrub.	Line Cr Plateau	July - August	July - August

Habitat for eleven sensitive plant species and one suspected species of concern exists on the District. Only six sensitive species of the twelve species have known populations that occur on the Forest. Most of the listed sensitive plant species are located in riparian or wetland areas, one species in alpine, and a few species in drier open cover types.

The following table outlines routes where potential impacts could occur and season of use by Alternative.

**Table 3-70. Motorized Routes Adjacent to Sensitive Plant Populations & Associated Season of Use.**

Route Name	Route ID#	Sensitive Plant	Alt. A - Season of Use	Alt. B - Season of Use	Alt. C - Season of Use	No Action Alt. - Season of Use	Alt. B Mod. Season of Use
<b>Beartooth Unit</b>							
Robertson Draw	2008	Beartooth Goldenweed	4/15 - 12/1	4/15 - 12/1	4/15 - 12/1	4/15 - 12/1	4/15 - 12/1
W Fk Rock Creek	2071	Three-ranked Humpmoss	4/15 - 12/1	4/15 - 12/1	4/15 - 12/1	4/15 - 12/1	4/15 - 12/1
East Rosebud	2177, 21771	Mealy Primrose	Yearlong	Yearlong	Yearlong	Yearlong	Yearlong
East Rosebud	2177	Hiker's Gentian	Yearlong	Yearlong	Yearlong	Yearlong	Yearlong
<b>Pryor Unit</b>							
Commissary Ridge (upper portion)	2092	Jove's Buttercup, Platte Cinquefoil	Yearlong	6/15 – 4/15	6/15 – 4/15	Yearlong	5/22 – 4/15

**Table 3-70. Motorized Routes Adjacent to Sensitive Plant Populations & Associated Season of Use.**

Route Name	Route ID#	Sensitive Plant	Alt. A - Season of Use	Alt. B - Season of Use	Alt. C - Season of Use	No Action Alt. - Season of Use	Alt. B Mod. Season of Use
Cave Ridge	2094	Platte Cinquefoil	Yearlong	6/15 – 4/15	Designated for Adm. Use Only	Yearlong	Designated for Adm. Use Only
Beaverslide	2097	Jove's Buttercup, Platte Cinquefoil	Yearlong	6/15 – 4/15	Designated for Adm. Use Only	Yearlong	6/15 - 4/15
Pryor Road from head of Crooked Creek to Wild Horse North boundary)	2308	Jove's Buttercup, Platte Cinquefoil	Yearlong	6/15 – 4/15	6/15 – 4/15	Yearlong	5/22 – 4/15
Pryor Road from head of Crooked Creek to Sage Cr. Boundary)	2308	Beartooth Goldenweed	Yearlong	Yearlong	Yearlong	Yearlong	5/22 – 4/15
Dryhead Loop	2308B	Platte Cinquefoil	Yearlong	N/A - Route not designated	Yearlong	Yearlong	N/A - Route not designated
Upper Burnt Timber Ridge	2308 from Dryhd Overl. South to E Bdry	Shoshonea, Platte Cinquefoil	Yearlong	6/15 – 4/15	6/15 – 4/15	Yearlong	6/15 - 4/15
Pryor Powerline Road	2500	Beartooth Goldenweed	Yearlong	Yearlong	Yearlong	Yearlong	Yearlong
Pryor Powerline Road East Spur	25001	Beartooth Goldenweed	Yearlong	Designated for Adm. Use Only	N/A– Route not designated	Yearlong	Designated for Adm. Use Only

**Effects Analysis Methodology-Sensitive Plants**

No systematic ground surveys were completed for the alternatives addressed in this analysis. The analysis is based on known sensitive plant occurrences as provided by the Montana Natural Heritage Program (MNHP 2006), recent survey findings, and habitat potential or habitat/site characteristics (landtype, habitat type, aspect, and elevation). Information used came from data on file at the Custer National Forest, literature review (Beatty et. al. 2004; Ladyman. 2005, Lesica. 1995; Lyman. 2005; McCracken. 2005-2007; Mergen. 2006; Mincemoyer. 2006; MNHP. 2006; NatureServe. 2007; Rocchio and Anderson. 2006; Shelly. 1988; USDA. 1999; USDA, 2000; USDI. 2005; and WYNDD. 2005), and personal communications with resource specialists with knowledge of vegetation and travel management effects.

There are no new non-motorized routes being proposed for public use designation that occur near known populations or habitat components. Therefore, the analysis area for sensitive plants will focus on populations in close proximity to motorized routes designated for public use by alternative. The measures used in the effects analysis are the intersection of buffered designated motorized routes

with known sensitive plant populations and sensitive plant habitat suspected to be in the area. Alternatives include variations on motorized route designations and associated parking or dispersed camping along the routes. Designated routes with known plant occurrences or probabilities of sensitive plant habitat have been identified.

The potential direct effects are direct mortality which may come from more frequent ground disturbing activities within or near sensitive plant populations, such as parking or camping or infrequent disturbance from accessing dispersed campsites. To estimate frequent disturbance potential, a 0-4% slope was overlain in GIS within the motorized route access corridor for parking/vehicle access to dispersed camping (50 foot buffer for Alternative C parking and 300 foot buffer for vehicle access to dispersed camping for the remaining alternatives).

Indirect effects may come from frequency and duration of parking and/ or camping use resulting in more difficult recovery due to soil compaction and vegetation composition change (including weeds) which may out-compete sensitive plants. A 100 foot buffer is applied to Alternative C’s designated routes to address parking allowance and additional area for weed spread potential (an additional 50 feet). A 400 foot buffer was applied to all other alternatives’ designated routes to address access to dispersed camping allowance (300 feet) and additional area for weed spread potential (an additional 100 feet). Weed spread assumptions are found in the Weed section of this chapter.

Direct and indirect vulnerabilities and exposures are evaluated to make a biological assessment effects determination on each species.

**3.3.4.8 Environmental Consequences – Sensitive Plants**

*All Alternatives*

The degree of risk to sensitive plants from travel management depends on the vulnerability of the habitat to anticipated activities and the magnitude and duration of exposure.

**Vulnerability**

Two known species’ populations are most vulnerable to direct effects from travel management. Seven of the species habitats have potential for being susceptible to noxious weed spread as an indirect effect of travel management (see Weed section of this chapter). Population or habitat vulnerabilities to direct and indirect effects are displayed in the following Table.

**Table 3-71. Sensitive Plant Vulnerability**

Species	Direct Effects – Populations / Habitats Vulnerable to Direct Disturbance	Indirect Effects - Habitat Vulnerable to Weed Spread
<b>Species with Known Populations</b>		
Barratt's willow	Low; too wet for typical driving, camping, or parking; known population occurs in Research Natural Area which is closed to motorized use	Low, species habitat is in mesic alpine where weed spread is unlikely
Beartooth Goldenweed	High; known populations immediately adjacent to motorized routes; habitat in gentle to moderate terrain amendable to parking or accessing dispersed camp areas	High; habitat can be vulnerable to weed spread
Hiker's Gentian	Low; too wet for typical driving, camping, or parking	Moderate; habitat can be vulnerable to weed spread

**Table 3-71. Sensitive Plant Vulnerability**

Species	Direct Effects – Populations / Habitats Vulnerable to Direct Disturbance	Indirect Effects - Habitat Vulnerable to Weed Spread
Jove’s Buttercup	Moderate to High – Alternatives A and No Action; known populations immediately adjacent to motorized routes; habitat in gentle to moderate terrain amenable to parking or accessing dispersed camp areas.  Moderate - Alternatives B, B Modified and C season of use lessens vulnerability to impacts during growing season.	High; habitat can be vulnerable to weed spread
Musk-root	Low; known populations are not located near motorized routes; habitat most often in areas not conducive to foot travel (talus slopes, rock slides).	Low; species habitat in forested canopy cover where weed spread is unlikely in shaded areas.
Shoshonea	Low; known populations have rough access terrain with no reasonable area for parking or dispersed camping access.	Low, species habitat is in exposed shallow limestone where weed spread is unlikely
<b>Suspected Species</b>		
Giant Helleborine	Low; too wet for typical driving, camping, or parking	Moderate; habitat can be vulnerable to weed spread
Hall's Rush	Low; no known populations, however, habitat components could occur within parking or access to dispersed camping	Moderate; habitat can be vulnerable to weed spread
Mealy Primrose	Low, too wet for typical driving, camping, or parking; no known populations	Moderate; habitat can be vulnerable to weed spread
Platte Cinquefoil	Moderate to High – Alternatives A and No Action; known populations immediately adjacent to motorized routes; habitat in gentle to moderate terrain amenable to parking or accessing dispersed camp areas.  Moderate - Alternatives B, B Modified, and C season of use lessens vulnerability to impacts during growing season.	High; habitat can be vulnerable to weed spread
Small Yellow lady's-slipper	Low; too wet for typical driving, camping, or parking	Moderate; habitat can be vulnerable to weed spread
Three-ranked Humpmoss	Low; too wet for typical driving, camping, or parking; known location	Low; habitat in highly saturated peat where weed spread is unlikely

**Exposure**

The following table outlines acres of potential frequent (0-4% slopes) and infrequent exposure (route corridor)<sup>61</sup> to direct effects on known sensitive plant populations and suspected species habitat by Alternative. The acreage displayed is total potential acreage. However, the likelihood of repeated, frequent dispersed camping or parking will be significantly less than the following total acreage since these activities often occur near areas with water, vistas, or other known dispersed use areas.

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<sup>61</sup> See Vegetation section for further background on frequent and infrequent access impacts.

**Table 3-72. Potential for Frequent Exposure to Direct Effects**

Species	Land Unit	NFS Population Total Size (Acres)	Alt. A	Alt. B	Alt. C	No Action Alt.	Alt. B Mod.
<b>Known Populations – Acres (% of Population) Sensitive Plants in 0-4% Slope Class along Motorized Corridors</b>							
Barratt's Willow	Beartooth	8	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Hiker's Gentian	Beartooth	8	<0.06 (<1%)	<0.06 (<1%)	0 (0%)	<0.06 (<1%)	<0.06 (<1%)
Musk-root	Beartooth	5	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Three-ranked Humpmoss	Beartooth	124	0.5 (<1%)	0.5 (<1%)	0 (0%)	0.5 (<1%)	0.5 (<1%)
Beartooth Goldenweed	Beartooth	607	0.4 (<1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Beartooth Goldenweed	Pryor	482	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Shoshonea	Pryor	155	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Jove's Buttercup	Pryor	25	<0.03 (<1%)	<0.03 (<1%)	0 (0%)	<0.03 (<1%)	<0.03 (<1%)
<b>Suspected Species – Acres (% of Population) Sensitive Plants in 0-4% Slope Class along Motorized Corridors</b>							
Hall's Rush	Beartooth	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Mealy Primrose	Beartooth	1514	5.1 (<1%)	5.1 (<1%)	0.3 (<1%)	3.9 (<1%)	5.1 (<1%)
Small Yellow Lady's Slipper	Beartooth	2823	7.7 (<1%)	7.7 (<1%)	0.6 (<1%)	0 (0%)	7.7 (<1%)
Giant Helleborine	Pryor	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Platte Cinquefoil	Pryor	13,459	48.7 (<1%)	46.9 (<1%)	15.0 (<1%)	56.5 (<1%)	46.9 (<1%)
			62.5	60.3	15.9	61.0	60.3

The following table outlines acres of potential exposure to direct effects (trampling and compaction within 50 feet and 300 feet of motorized routes under Alternative C and remaining alternatives, respectively) to known sensitive plant populations and suspected species habitat.

**Table 3-73. Potential for Infrequent Exposure to Direct Effects**

Species	Land Unit	Population Total Size (Acres)	Alt. A	Alt. B	Alt. C	No Action Alt.	Alternative B Mod.
<b>Known Populations – Acres (% of Population) Sensitive Plants in Motorized Corridor</b>							
Barratt's Willow	Beartooth	8	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0)
Hiker's Gentian	Beartooth	8	1 (8%)	1(8%)	0 (0%)	1 (8%)	1 (8%)
Musk-root	Beartooth	5	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0)
Three-ranked Humpmoss	Beartooth	124	19 (15%)	19 (15%)	3 (2%)	19 (15%)	19 (15%)
Beartooth Goldenweed	Beartooth	607	53 (9%)	15 (2%)	1 (<1%)	11 (2%)	15 (2%)
Beartooth Goldenweed	Pryor	482	36 (7%)	23 (5%)	6 (<1%)	25 (<1%)	23 (5%)
Shoshonea	Pryor	155	2 (<1%)	2 (<1%)	1 (<1%)	2 (<1%)	2 (<1%)
Jove's Buttercup	Pryor	25	18 (71%)	18 (71%)	3 (10%)	18 (72%)	18 (71%)

**Table 3-73. Potential for Infrequent Exposure to Direct Effects**

Species	Land Unit	Population Total Size (Acres)	Alt. A	Alt. B	Alt. C	No Action Alt.	Alternative B Mod.
<b>Suspected Species – Acres (% of Population) Sensitive Plants in Motorized Corridor</b>							
Hall's Rush	Beartooth	Unknown	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0)
Mealy Primrose	Beartooth	1,514	119 (8%)	119 (8%)	24 (2%)	109 (7%)	119 (8%)
Small Yellow Lady's Slipper	Beartooth	2823	9 (<1%)	9 (<1%)	1 (<1%)	0 (0%)	9 (<1%)
Giant Helleborine	Pryor	Unknown	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0)
Platte Cinquefoil	Pryor	13,459	849 (6%)	753 (6%)	156 (1%)	850 (6%)	762 (6%)

The following table outlines acres of potential exposure to indirect effects (trampling, compaction, weed infestation within 100 feet and 400 feet of motorized routes under Alternative C and remaining alternatives, respectively) to known sensitive plant populations and suspected species habitat.

**Table 3-74. Potential Exposure to Indirect Effects**

Species	Land Unit	Population Total Size (Acres)	Alt. A	Alt. B	Alt. C	No Action Alt.	Alt. B Mod.
<b>Known Populations</b>							
Barratt's Willow	Beartooth	8	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Hiker's Gentian	Beartooth	8	2 (23%)	2 (23%)	0 (0%)	2 (23%)	2 (23%)
Musk-root	Beartooth	5	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Three-ranked Humptom	Beartooth	124	26 (21%)	26 (21%)	6 (5%)	26 (21%)	26 (21%)
Beartooth Goldenweed	Beartooth	607	67 (11%)	20 (3%)	3 (<1%)	15 (2%)	24 (4%)
Beartooth Goldenweed	Pryor	482	46 (10%)	33 (7%)	10 (2%)	36 (7%)	30 (6%)
Shoshonea	Pryor	155	3 (2%)	3 (2%)	2 (1%)	3 (2%)	3 (2%)
Jove's Buttercup	Pryor	25	21 (83%)	21 <sup>62</sup> (83%)	5 (21%)	21 (86%)	21 (86%)
<b>Total - Known</b>			<b>139</b>	<b>79</b>	<b>20</b>	<b>77</b>	<b>106</b>
<b>Suspected Species</b>							
Hall's Rush	Beartooth	Unknown	0 (0%)	0 (0%)	0 (0%)	0 (0%)	
Mealy Primrose	Beartooth	1,514	155 (10%)	155 (10%)	41 (3%)	149 (10%)	223 (15%)
Small Yellow Lady's Slipper	Beartooth	2823	15 (1%)	15 (1%)	1 (0%)	0 (0%)	17 (1%)
Giant Helleborine	Pryor	Unknown	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Platte Cinquefoil	Pryor	13,459	1112 (8%)	992 (7%)	268 (2%)	1123 (8%)	1036 (8%)
<b>Total - Suspected</b>			<b>1282</b>	<b>1162</b>	<b>310</b>	<b>1272</b>	<b>1276</b>

<sup>62</sup> Under Alternative B, the proposed season of use would help minimize additional direct effects to Jove's Buttercup during its growth cycle as well as minimizing potential of motorized vehicles from going off-road, around snow banks, and through populations during these growth and seed set periods.

**Direct and Indirect Effects-Sensitive Plants**

Actions proposed in all Alternatives have the potential to affect known populations of sensitive plants. The potential direct effects from motorized routes are direct mortality of plants which may come from ground disturbing activities within sensitive plant populations, such as parking adjacent to motorized routes, accessing dispersed camping sites, and dispersed camping. The potential direct effects from non-motorized routes are direct mortality of plants which may come from ground disturbing activities within sensitive plant populations such as dispersed camping.

Indirect effects may come from parking, accessing dispersed camp areas, and camping use. These uses can create more difficult plant recovery due to soil compaction and vegetation composition change (including weeds) which may out-compete sensitive plants.

Some activities associated with the roads and trails do have the potential to negatively affect individual plants, but should not cause population viability losses. Vehicle, stock, or human travel outside the road or trail prism could negatively impact plants through direct removal or damage. Weed establishment along roads and trails could out-compete desired vegetation and negatively affect sensitive plant species. Most road and trail maintenance activities that stay within the existing prism would not pose a direct threat to those plant populations that are established along roads or trails.

There are no direct or indirect effects to Barratt’s willow, musk root, Hall’s rush, or giant helliborine. Direct or indirect effects to hiker’s gentian and three-ranked humpmoss are unlikely because of wetness of habitat. Under Alternative’s B, B Modified, and C, there are reduced direct or indirect effects to Jove’s buttercup due to seasonal restriction during its growth cycle. There could be direct or indirect effects to the remaining species.

Direct and indirect vulnerabilities and exposures, outlined in previous tables, were given an adjective rating and evaluated to make a biological assessment effects determination for each species as displayed in the following table. Implementation of any alternative would not be anticipated to move any sensitive plant species within the project area toward federal listing.

**Table 3-75. Effects Determination**

Species	Effects Components	Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified
<b>Known Populations</b>						
<b>Barratt’s Willow</b>	Vulnerability - Direct	Low	Low	Low	Low	Low
	Exposure - Direct	Low	Low	Low	Low	Low
	Vulnerability - Indirect	Low	Low	Low	Low	Low
	Exposure - Indirect	Low	Low	Low	Low	Low
	Effects Determination	NI <sup>63</sup>	NI	NI	NI	NI
<b>Beartooth Goldenweed</b>	Vulnerability - Direct	Moderate to High	Moderate to High	Moderate to High	Moderate to High	Moderate to High
	Exposure - Direct	Low	Low	Low	Low	Low
	Vulnerability - Indirect	High	High	High	High	High
	Exposure - Indirect	Low	Low	Low	Low	Low

<sup>63</sup> NI = No Impact

**Table 3-75. Effects Determination**

Species	Effects Components	Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified
	Effects Determination	MIIH <sup>64</sup>	MIIH	MIIH	MIIH	MIIH
<b>Hiker's Gentian</b>	Vulnerability - Direct	Low	Low	Low	Low	Low
	Exposure - Direct	Low	Low	Low	Low	Low
	Vulnerability - Indirect	Moderate	Moderate	Moderate	Moderate	Moderate
	Exposure - Indirect	Low	Low	Low	Low	Low
	Effects Determination	NI	NI	NI	NI	NI
<b>Jove's Buttercup</b>	Vulnerability - Direct	Moderate to High	Moderate	Moderate	Moderate to High	Moderate
	Exposure - Direct	Moderate	Moderate	Low	Moderate	Moderate
	Vulnerability - Indirect	High	High	High	High	High
	Exposure - Indirect	Moderate	Moderate	Low	Moderate	Moderate
	Effects Determination	MIIH	MIIH	MIIH	MIIH	MIIH
<b>Musk-root</b>	Vulnerability - Direct	Low	Low	Low	Low	Low
	Exposure - Direct	Low	Low	Low	Low	Low
	Vulnerability - Indirect	Low	Low	Low	Low	Low
	Exposure - Indirect	Low	Low	Low	Low	Low
	Effects Determination	NI	NI	NI	NI	NI
<b>Three-ranked Humpmoss</b>	Vulnerability - Direct	Low	Low	Low	Low	Low
	Exposure - Direct	Low	Low	Low	Low	Low
	Vulnerability - Indirect	Low	Low	Low	Low	Low
	Exposure - Indirect	Low	Low	Low	Low	Low
	Effects Determination	NI	NI	NI	NI	NI
<b>Shoshonea</b>	Vulnerability - Direct	Low	Low	Low	Low	Low
	Exposure - Direct	Low	Low	Low	Low	Low
	Vulnerability - Indirect	Low	Low	Low	Low	Low
	Exposure - Indirect	Low	Low	Low	Low	Low
	Effects Determination	NI	NI	NI	NI	NI
<b>Suspected Species Habitat</b>						
<b>Giant Helleborine</b>	Vulnerability - Direct	Low	Low	Low	Low	Low
	Exposure - Direct	Low	Low	Low	None	Low
	Vulnerability - Indirect	Moderate	Moderate	Moderate	Moderate	Moderate
	Exposure - Indirect	Low	Low	Low	Low	Low
	Effects Determination	No Impact	No Impact	No Impact	No Impact	No Impact
<b>Hall's Rush</b>	Vulnerability - Direct	Low	Low	Low	Low	Low
	Exposure - Direct	Low	Low	Low	None	Low
	Vulnerability - Indirect	Moderate	Moderate	Moderate	Moderate	Moderate
	Exposure - Indirect	Low	Low	Low	Low	Low
	Effects Determination	No Impact	No Impact	No Impact	No Impact	No Impact
<b>Mealy Primrose</b>	Vulnerability - Direct	Low	Low	Low	Low	Low
	Exposure - Direct	Low	Low	Low	None	Low
	Vulnerability - Indirect	Moderate	Moderate	Moderate	Moderate	Moderate
	Exposure - Indirect	Low	Low	Low	Low	Low
	Effects Determination	NI	NI	NI	NI	NI

<sup>64</sup> MIIH = May Impact Individuals or Habitat but will not Likely Contribute to a trend towards Federal Listing or Loss of Viability to the Population or Species

**Table 3-75. Effects Determination**

Species	Effects Components	Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified
<b>Platte Cinquefoil</b>	Vulnerability - Direct	Moderate to High	Moderate	Moderate	Moderate to High	Moderate
	Exposure - Direct	Moderate	Moderate	Low	Moderate	Moderate
	Vulnerability - Indirect	High	High	High	High	High
	Exposure - Indirect	Low	Low	Low	Low	Low
	Effects Determination	MIIH	MIIH	MIIH	MIIH	MIIH
<b>Small Yellow Lady's Slipper</b>	Vulnerability - Direct	Low	Low	Low	Low	Low
	Exposure - Direct	Low	Low	Low	None	Low
	Vulnerability - Indirect	Moderate	Moderate	Moderate	Moderate	Moderate
	Exposure - Indirect	Low	Low	Low	Low	Low
	Effects Determination	NI	NI	NI	NI	NI

***Cumulative Effects-Sensitive Plants***

Fuels reduction and timber management projects are currently planned and will continue to be planned for the District. These projects and any associated road use or construction have the potential to detrimentally impact individual plants and/or populations through direct plant removal or damage, ground disturbance, forest vegetation successional shifts, or habitat alteration (e.g. shade reduction) within or adjacent to plant populations. Prescribed burning and/or wildfire (natural and human-caused) also have the potential to detrimentally impact sensitive plants. These actions may kill individual plants or entire populations, modify habitat (understory and overstory vegetation) to an unsuitable condition, or remove the habitat entirely. Permitted grazing has potential to impact sensitive plants. However, prior to implementation of future management decisions, site-specific analysis and field surveys, where appropriate, would be completed to identify sensitive plant populations, determine potential effects to the populations from the actions, and design alternatives and/or prescribe mitigation measures to minimize impacts. Typically, adverse actions to plant populations would be avoided.

Invasive plant populations have established adjacent to numerous roads and trails on the District. At least one sensitive plant species is found near current weed infestations. Roadside low density infestations of spotted knapweed, Dalmatian toadflax, and houndstongue are found adjacent to three Beartooth goldenweed populations on the District. These situations currently occur in Sage Creek, Robertson Draw, and Eastside Road/Seeley Creek.

Travel along these routes by Forest users increases the potential that weed seed will be spread to other portions of the road and trail system and may establish within or adjacent to sensitive plant populations. Invasive species pose a risk to sensitive plants through direct competition. Herbicide application to manage invasive species also has the potential to kill sensitive plants. To help protect sensitive species, the 2006 Custer Weed Management EIS and Record of Decision directs that periodic inspections of known populations for the presence of invasive weeds is done. Treatment efforts are more effective and less disruptive when only treating a few weeds. If spotted knapweed or other invasive weeds become well established, then the herbicide broadcast treatment may be detrimental to sensitive plants, leaving backpack spot treatment or possibly only individual wicking applications and hand-pulling as options. Herbicide applications along roads and trails would comply with product label requirements and protection measures described in the 2006 Custer Weed Management EIS.

**Chapter 3: Affected Environment and Environmental Consequences**

Implementation of any of the alternatives considered in this Environmental Impact Statement would not be expected to contribute to significant cumulative effects. Anticipated future projects or activities are fewer in number and less disruptive from a resource extraction point of view than those projects or activities that have taken place in the past. Past activities or projects have not precluded the establishment and existence of known sensitive plant populations throughout the project area where appropriate habitats are found. Therefore, continuation of less impactful projects or activities would not be anticipated to contribute significantly to cumulative effects.

**3.3.4.9 Conclusion - Sensitive Plants**

Under all alternatives, nine of the 12 species assessed are anticipated to have no impact. Any alternative may impact individuals or habitat but will not likely contribute to a trend towards Federal listing or loss of viability to the population or species relative to two known species (Beartooth goldenweed, Jove’s buttercup) and one suspected species(Platte cinquefoil).

**Table 3-76. Effects Determination Summary**

Species	Alternative A	Alternative B	Alternative C	No Action Alternative	Alternative B Modified
<b>Known Populations</b>					
Barratt’s Willow	No Impact <sup>65</sup>	No Impact	No Impact	No Impact	No Impact
Beartooth Goldenweed	MIIH <sup>66</sup>	MIIH	MIIH	MIIH	MIIH
Hiker’s Gentian	No Impact	No Impact	No Impact	No Impact	No Impact
Jove’s Buttercup	MIIH	MIIH	MIIH	MIIH	MIIH
Musk-root	No Impact	No Impact	No Impact	No Impact	No Impact
Three-ranked Humpmoss	No Impact	No Impact	No Impact	No Impact	No Impact
Shoshonea	No Impact	No Impact	No Impact	No Impact	No Impact
<b>Suspected Species Habitat</b>					
Giant Helleborine	No Impact	No Impact	No Impact	No Impact	No Impact
Hall’s Rush	No Impact	No Impact	No Impact	No Impact	No Impact
Mealy Primrose	No Impact	No Impact	No Impact	No Impact	No Impact
Platte Cinquefoil	MIIH	MIIH	MIIH	MIIH	MIIH
Small Yellow Lady’s Slipper	No Impact	No Impact	No Impact	No Impact	No Impact

**Table 3-77. Summary of Number of Species by Effects Determination**

Effects Determination	Alt. A	Alt. B	Alt. C	No Action Alt.	Alt. B Mod.
Number of Species with No Effect	9	9	9	9	9
Number of Species with potential to effect individuals or Habitat but will not Likely Contribute to a trend towards Federal Listing or Loss of Viability to the Population or Species	3	3	3	3	3

<sup>65</sup> NI: No Impact

<sup>66</sup> MIIH: May Impact Individuals or Habitat but will not Likely Contribute to a trend towards Federal Listing or Loss of Viability to the Population or Species

All alternatives are consistent with the Laws, Regulations, Policy, and Federal, Regional, State, and Custer Forest Plan. Selection of any alternative would be consistent with the regulatory framework relative to sensitive plants.

### **3.3.5 INVENTORIED ROADLESS AREAS**

#### ***Introduction***

Travel Plan revision proposals would make changes to how recreationists use certain roads and trails. Changes in types of use may have an effect on certain characteristics of roadless lands on the Custer National Forest. The public has identified a concern over motorized recreation within roadless lands, and the potential that motorized activities have to diminish roadless characteristics, and possibly the future designation of some roadless areas as Wilderness.

#### ***Overview of Changes from DEIS to FEIS***

- This section on Inventoried Roadless Areas was added in response to public comment related to the need to analyze effects to this resource.

#### **3.3.5.1 Affected Environment – Inventoried Roadless Areas**

#### ***Applicable Laws, Regulations, and Policy***

Federal laws and agency policy that provide for the management of inventoried roadless lands are:

- *Forest Service Manual FSM 1923*: Outlines what activities are appropriate in roadless areas that are recommended for wilderness.
- *Forest Service Handbook 1909.1 70*: Describes the process for identifying and evaluating potential wilderness in the National Forest System. And,
- *Forest Service Handbook 1909.15*: Provides direction to complete an Environmental Impact Statement for proposals that would substantially alter the undeveloped character of roadless lands 5,000 acres or greater in size.

*Roadless Final Rule 5.13.2005 36 CFR Part 294*: Special Areas; State Petitions for Inventoried Roadless Area Management; Roadless Area Conservation National Advisory Committee; Final Rule and Notice.

*Custer National Forest and National Grasslands Land and Resource Management Plan 1987*: Identifies the Inventoried Roadless Areas recommended for designation as Wilderness through that planning effort. Forest plan management area prescriptions determined whether roadless parcels not recommended for wilderness designation would be considered for road construction, timber harvest, or some other surface disturbing management action at some future point or managed as without roads.

#### ***Inventoried Roadless Area Setting & Background***

The 587,490-acre Beartooth Ranger District has a large component of roadless lands, including designated Wilderness and lands recommended for wilderness classification. An inventory of roadless lands has been maintained on the Forest since the early 1970s. The current inventory was displayed most recently in the 2001 Roadless Area Conservation Final Rule (hereafter, RAC Final Rule)(36 CFR 294, USDA 2001) and may also be found in Appendix C of the Forest Plan (USDA 1987). The

**Chapter 3: Affected Environment and Environmental Consequences**

following table summarizes the roadless inventory acres, designated Wilderness, recommended wilderness, and roaded lands on the Forest. Figure 3-2 below is a map of the current roadless inventory of the Forest from the Roadless Area Conservation website (USDA 2001 and <http://www.roadless.fs.fed.us/>).

**Table 3-78. Acreages Reported in Table 1 of the Forest Plan Record of Decision and GIS Projected Acreage Used and Reported in the Roadless Area Conservation Final Rule.**

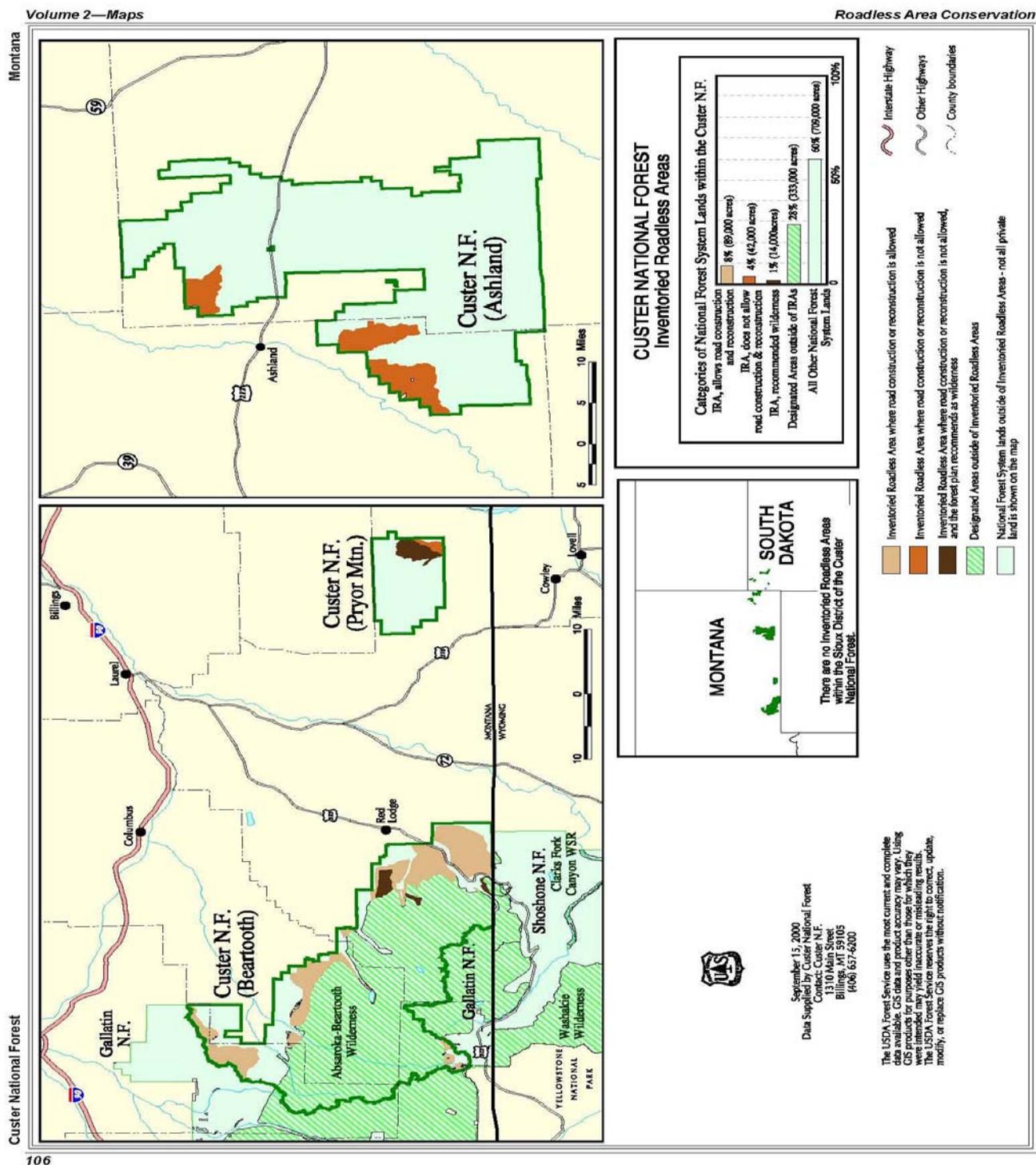
ROADLESS AREA NAME	ORIGINAL RARE II ACRES	1983 INVENTORY ACRES	RECOMMENDED WILDERNESS (MA-H)		AVAILABLE FOR DEVELOPMENT per FOREST PLAN (column c minus d-1)	ROADLESS AREA CONSERVATION FINAL RULE/GIS PROJECTED ACRES	AVAILABLE FOR DEVELOPMENT (column f minus d-2)
			d-1 (Forest Plan acreage)	d-2 (GIS projected acreage)			
a	b	c			e	f	g
01363 Red Lodge Crk Hellroaring	28,280	14,760	800	802	13,960	17,237	16,435
01364 Burnt Mountain <sup>67</sup>	0	9,320	4,200	3,917	5,120	10,702	6,785
01368 Black Butte <sup>67</sup>	0	880	0	0	880	929	929
01369 West of Woodbine <sup>67</sup>	2,000	2,000	0	0		2,083	2,083
01371 North Absaroka	19,240	22,500	0	0	22,500	21,249	21,249
01911 Line Crk Plateau	20,680	20,680	0	0	20,680	24,831	24,831
01912 Beartooth	1,180	1,180	0	0	1,180	1,160	1,160
01913 Rock Creek <sup>67</sup>	0	200	0	0	200	100	100
Fishtail Saddleback	20,360	16560	500 <sup>68</sup>	303	16,060	16,687	16,384
State Line	0	0	500	811	0	811	0
01362 Lost Water Canyon	9,800	9,800	5,812	6,805	3,988	6,805	- <sup>69</sup>
Total Acres	101,540	97,880	11,812	12,638	84,568	102,594	89,956

<sup>67</sup> West of Woodbine, Black Butte, Burnt Mountain, and Rock Creek were originally part of other roadless areas.

<sup>68</sup> These acres can probably be attributed to Mystic Lake. Mystic Lake was not part of the Fishtail Saddleback IRA, per se, but the 500 acres in Table 1 of the Forest Plan ROD recommends wilderness designation of this area closest to the Fishtail Saddleback IRA.

<sup>69</sup> Some acres in the southeastern corner of the Pryor Mountains were allocated to Management Area Q, Pryor Mountain Wild Horse Range.

Figure 3-2. Map of Inventoried Roadless Areas on the Custer National Forest from the Roadless Area Conservation Final Rule Website.



### **Chapter 3: Affected Environment and Environmental Consequences**

The original inventory of roadless lands took place in the early 1970s during the Roadless Area Review and Evaluation (RARE) I evaluations, and then again in the late 1970s during RARE II. The inventory displayed in the current Forest Plan EIS, Appendix C, is an output of the RARE II inventory. A total of fourteen separate Inventoried Roadless Areas (IRAs) were identified on the Montana portion of the Forest through this process. Of the fourteen IRAs identified on the Montana portion of the Forest, eleven of these areas are on the Beartooth Ranger District. Complete descriptions of these areas can be found in Appendix C of the Forest Plan FEIS (USDA 1987).

The above table is provided to show context regarding decisions that have been made concerning Wilderness, recommended wilderness, and Inventoried Roadless Areas in the Forest Plan, as well as the Roadless Area Conservation Final Rule. Acreages in the table are those that have been reported in the Forest Plan, as well as GIS projected acres reported and/or utilized in the Roadless Area Conservation Final Rule.

During the analysis for the current Forest Plan, all inventoried roadless areas were reviewed and alternatives considered whether to recommend these areas for designation as Wilderness. This review was originally mandated by the RARE I and then RARE II processes, and modified yet again by direction contained in the National Forest Management Act (NFMA) and subsequent planning regulations tied to it (36 CFR 219.17). The results of that roadless review can be found in the Forest Plan for the Custer National Forest FEIS Appendix C (USDA 1987). The preferred alternative for the Forest Plan recommended an additional 11,812 acres of roadless lands be designated as Wilderness (USDA 1987). These are areas allocated to Management Area H (recommended for wilderness classification), approximately 6,000 acres of which lie in the Beartooth Unit and 5,812 acres lie in the Pryor Unit. Some of these areas have a dual designation for Research Natural Areas (MA-L) and Recommended Wilderness (MA-H) as a result of NEPA decisions to complete establishment of Research Natural Areas. The areas allocated to the Research Natural Area lies within the larger H Management Area.

None of these recommended wilderness additions have yet been designated as Wilderness by Congress and are managed under the MA-H (recommended wilderness) prescription in the Forest Plan. Of the approximately 97,880 acres of roadless on the Beartooth Ranger District evaluated in the Forest Plan, approximately 89,956 acres were allocated to management prescriptions that allowed road construction/reconstruction or other land managing activities that could alter roadless character. However, since the 2001 Roadless Area Conservation Final Rule went into effect, road construction/reconstruction is not allowed in inventoried roadless areas, unless a proposed road meets one of the five exceptions to the Final Rule (USDA 2000). Motorized access on existing routes and road maintenance of system routes is allowed (USDA 2000).

The total inventoried roadless areas in the previous table (approximately 102,594 acres) are those shown in the Roadless Final Rule EIS (USDA, 2001). The acreages in the following table, 102,594 acres, are slightly less than those shown in the Roadless Area Conservation Final Rule. Discrepancies in total roadless acreage shown in the Forest Plan on page 118 of the FEIS and Table 1 of the Forest Plan ROD (97,880 acres) and the 103,000-acre figure displayed in the Roadless Final Rule are primarily due to mapping conventions (the hand drawn maps vs. GIS mapping used for the Final Rule, map scale(s), different methods for calculating acres (planimeter, vs. dot grids), and data conversion differences). The inventory lines themselves have not been changed since the Forest Plan was published.

**Table 3-79. Land base of the Custer National Forest (National Forest System lands only) using GIS projected acres, except as noted.**

Land Type	Approximate Acres	Percent
Wilderness:		
Absaroka Beartooth <sup>70</sup>	345,599	
Wilderness Total	345,599	58.8 %
Inventoried Roadless:		
Recommended for Wilderness <sup>71</sup>	12,638	
Not Recommended for Wilderness	89,956	
Inventoried Roadless Total	102,594	17.4 %
Roaded Lands:		
Roaded Lands Total	139,406	23.8%
Total Acres	587,599	100.0 %

There are currently 13.6 miles of system routes across IRAs on the Beartooth Ranger District (Table 3-81). Management activities consistent with the 1987 Forest Plan were allowed within inventoried roadless areas provided the appropriate NEPA was conducted approving that activity, until the 2001 RAC Final Rule was put into effect. Thereafter, management actions that did not require the construction of new roads were allowed, including timber harvest for clearly defined, limited purposes, development of valid claims of locatable minerals, and grazing of livestock. Existing system roads may be maintained and used for the above noted actions and other actions as well.

The fact there are roads in inventoried roadless areas is the result of several factors. The roadless inventory used for this analysis was originally created during Forest Planning in the mid-1980s. This inventory was digitized and transformed into an electronic map used in GIS analysis in the late 1990s, with no changes or corrections to the original lines. The original maps were done at the fairly gross scale of 1/2-inch to 1 mile, and were not very accurate. Private lands and roads were included in gross drawing of IRA boundaries. When digitized for GIS mapping, differences occurred. Private lands and roads were included. Therefore, using the original map units in a modern mapping world, roads now appear in roadless, when in reality the roads were there all the time.

Another factor is that the Forest Plan allowed land management activities such as grazing, fence building, mineral exploration and development, timber harvest as part of the allocation of those lands to Management Areas B, C, D, E, F, R, and T, to occur. Therefore, consistent with the Forest Plan grazing has occurred, roads have been constructed/reconstructed, minerals developed, and timber harvested.

A third factor has to do with the definition of a road in terms of roadless lands. Forest Service Handbook 1909.12 provides direction on when to count lesser-developed roads as an improvement that would disqualify an area from roadless consideration. Roads generally must have engineered improvements and be passable by standard passenger car type vehicles to be counted as a road that would exclude the area from the roadless inventory. Some roads, primarily those labeled administrative or project, and in some cases backcountry roads would not be counted as a road in

<sup>70</sup> Land Areas of the National Forest System, Table 8 (USDA, 2006)

<sup>71</sup> GIS projected acres.

### Chapter 3: Affected Environment and Environmental Consequences

terms of the roadless inventory. The general concept is that if the road could easily be restored to a "natural condition" by removal of traffic and some rehabilitation work, then it may be included within the roadless inventory.

During Forest Plan revision, the inventory of Forest roadless lands will be updated. It is not known precisely when forest plan revision will begin for the Custer National Forest. Those forests or grasslands within the Northern Region already in revision will need to complete the process before the Custer National Forest will begin plan revision. The National Forest Management Act (NFMA) requires that roadless lands be re-evaluated during revision to determine their suitability for designation as Wilderness.

#### 3.3.5.2 Environment Consequences– Inventoried Roadless Areas

##### *Direct and Indirect Effects*

##### **Analysis Methodology**

A spatial analysis using GIS tools was used to compare the five alternatives within inventoried roadless lands. If the selected alternative would require physically changing the facility (road or trail) to accommodate the new use, and would require surface disturbing activities to make that change, site specific National Environmental Policy Act (NEPA) analysis appropriate for the activity proposed would take place prior to implementation of the physical change. Direct effects to roadless characteristics for a specific project would be disclosed during that subsequent analysis.

The following seven Wilderness attributes are the basis for evaluating the effects of the alternatives, using proximity and qualitative descriptions. In accordance with the NFMA, these are the characteristics used to define wilderness attributes, and are the basis for evaluating actions in roadless, which could affect future Wilderness designation. These attributes are also referenced and defined in Forest Service Handbook (FSH) 1920. They are:

- 1) *Natural Integrity*: The extent to which long-term ecological processes are intact and operating.
- 2) *Apparent Naturalness*: The environment looks natural to most people.
- 3) *Remoteness/primitive and unconfined recreation*: A perceived condition of being secluded, inaccessible, and out of the way.
- 4) *Solitude*: A personal, subjective value defined as the isolation from the sights, sounds, presence of others, and the development of man.
- 5) *Special Features*: Unique geological, biological, ecological, and cultural or scenic features.
- 6) *Manageability and Boundaries*: The ability to manage a roadless area to meet the minimum size criteria for Wilderness (5,000 acres).
- 7) *Special Places or Values*: Less-tangible attributes of the area that are special or valuable to stakeholders.

In addition to the characteristics typically used for roadless effects analysis mandated by NFMA, roadless characteristics were identified in the 2001 Roadless Final Rule, which may be independent of Wilderness characteristics. The attributes defined in the 2001 Roadless Final Rule<sup>72</sup> include:

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<sup>72</sup> See the Federal Register Vol. 66, No.9, Jan. 12, 2001 for expanded definitions of the roadless characteristics.

- 1) High quality or undisturbed soil.
- 2) Sources of public drinking water.
- 3) Diversity of plant and animal communities.
- 4) Habitat for threatened and endangered species.
- 5) Primitive, semi-primitive non-motorized and semi-primitive motorized classes of dispersed recreation.
- 6) Reference landscapes.
- 7) Natural-appearing landscapes with high scenic quality.
- 8) Traditional cultural properties and sacred sites.

The following table provides a crosswalk between the Wilderness attributes described for Forest planning in FSH 1920 and roadless characteristics defined in 36 CFR 294. Many of the characteristics defined in the RAC Final Rule pertain to specific resource issues that are analyzed elsewhere in this document (see the Water Quality, Fisheries and Aquatics section; see the Wildlife and Soils sections) and will not be reiterated in this section.

**Table 3-80. Roadless characteristics and Wilderness attributes**

Wilderness Attributes	Roadless Characteristics
<p><u>Natural Integrity:</u> The extent to which long-term ecological processes are intact and operating.</p>	<ul style="list-style-type: none"> <li>▪ High quality or undisturbed soil, water and air.</li> <li>▪ Sources of public drinking water.</li> <li>▪ Diversity of plant and animal communities.</li> <li>▪ Habitat for threatened, endangered, candidate, proposed and sensitive species dependent on large areas.</li> <li>▪ Reference landscapes.</li> </ul>
<p><u>Apparent Naturalness:</u> The environment looks natural to most people.</p>	<ul style="list-style-type: none"> <li>▪ Natural-appearing landscapes with high scenic quality.</li> </ul>
<p><u>Remoteness:</u> A perceived condition of being secluded, inaccessible, and out of the way.</p>	<ul style="list-style-type: none"> <li>▪ Primitive, semi-primitive non-motorized, and semi-primitive motorized classes of dispersed recreation.</li> </ul>
<p><u>Solitude:</u> A personal, subjective value defined as the isolation from the sights, sounds, and presence of others and the development of man.</p>	
<p><u>Special Features:</u> Unique geological, biological, ecological, and cultural or scenic features.</p>	<ul style="list-style-type: none"> <li>▪ Other locally identified unique characteristics, traditional cultural properties and sacred sites.</li> </ul>
<p><u>Special Places or Values:</u> Less-tangible attributes of the area that are special or valuable to stakeholders.</p>	
<p><u>Manageability and Boundaries:</u> Ability to manage a roadless area to meet the minimum size criteria for Wilderness (5,000 acres).</p>	<ul style="list-style-type: none"> <li>▪ No criteria.</li> </ul>

The Travel Management proposals do not include building new roads; therefore, it was not deemed necessary to revisit the accuracy of mapping and the roadless inventory for this analysis. The roadless inventory will be reviewed and updated through the Forest Plan revision process

## **Chapter 3: Affected Environment and Environmental Consequences**

### **Effects Common to Alternatives A, B, C, No Action, and B-Modified**

Table 3-81 displays the miles of non-system roads proposed to be converted to system roads. Table 3-81 also shows the miles of existing system roads in each alternative that are within inventoried roadless areas. In general, road configuration does not change substantially between alternatives. Travel Management alternatives do not include building a network of new roads, but they change the management strategy on some existing roads.

There are no proposals to actually construct additional miles of road in inventoried roadless areas in any alternative. Maintenance of routes is expected to continue to the same maintenance level standard that has been identified for a route.

Potential physical effects to roadless character from travel planning decisions are primarily associated with road and trail management decisions. Although there are no proposals to alter the function of a route in this analysis, alternatives that would change the function of single-track trails to double-track (i.e., hiking/stock/motorcycle trails to ATV trails) would have the potential to alter apparent naturalness or natural integrity, or even opportunity for solitude, in some cases. Opportunities for solitude and opportunities for a primitive recreation experience may be affected by the sound of motorized vehicles, and by the number of people encountered in an area. As an example, remoteness and apparent naturalness may be affected by the development of new trailhead, or the incursion of new routes or access points into previously un-accessed areas.

Under all alternatives, apparent naturalness can be affected by the visual appearance of ruts and mud holes along roads, trails, rutted stream banks, and indiscriminate wheel tracks off existing routes. The scope of decisions made through this analysis deals only with the determinations of appropriate types of uses on a given route; subsequent site-specific analysis would be required to actually physically change a route on the ground to accommodate a new use or to relocate a particular route.

No recent bills have been introduced into Congress to designate additional Wilderness in Montana. There were several bills that had fairly wide support in the early 1990s, though none became law.

None of the alternatives would affect roadless boundaries, nor the future consideration of these areas as potential Wilderness based on boundary or minimum size criteria.

### **Alternative A**

In Alternative A, 1.8 miles of non-system routes would be converted to system routes. Table 3-81 shows these miles as fourteen road segments dispersed across five IRAs. Currently, there are 13.6 miles of system routes.

Of the 1.8 miles proposed to be converted to system routes, 1.02 miles are proposed to be converted within the Fishtail Saddleback IRA, of which two routes, 241420 and 241421, are proposed to be converted from non-system routes to motorized system trail and designated for use by all motorized vehicles. These routes would be converted to system routes to provide the public with motorized recreation and dispersed vehicle camping opportunities. A number of these routes would create motorized loop opportunities. See Appendix C, Table C-1.

There would be little expected change to the Wilderness attributes characteristics or roadless characteristics by converting the 1.02 miles of non-system routes to system routes and system

motorized trail within the Fishtail Saddleback Inventoried Roadless Area. One of the routes, route 20144B, 0.5 miles in length, provides access to the Stillwater Plateau Trailhead, and thus would not see a change in the use of the route. The routes are near the Benbow Mine area which has seen substantial mineral development and which already has a number of system routes as a result of that development. The routes lie within a Forest Plan Management Area E, an area underlain by the highly mineralized Stillwater Complex. The Stillwater Complex contains some of the richest deposits of platinum, palladium, and chromites in the United States. Outstanding and reserved mineral rights (private minerals under Federal ownership) are another overriding consideration which could affect the wilderness and roadless resources of the area, regardless of the management emphasis (Forest Plan FEIS, Appendix C). The area has several private in-holdings as a result of patented mining claims. The decision to enter and develop the area by subsurface owners is a right not controlled by the Forest Service.

Of the remaining 0.7 miles proposed to be converted to system routes, one route segment totaling 0.1 miles is in the Red Lodge Creek Hellroaring IRA (route 24763); four route segments totaling 0.25 miles are in the Burnt Mountain IRA (routes 207111, 20718, 20718A, and 21415B); one route segment totaling 0.21 in the Line Creek Plateau IRA (route 20084A); and one route segment totaling 0.1 miles in the Stateline IRA (route 2123), which accesses a gravel pit for the Beartooth Highway.

There is no new road construction proposed under this alternative. There would be no change to the function of any of the routes, the type of vehicle used or road standard. Maintenance of these routes would continue into the foreseeable future. Apparent naturalness and natural integrity do not change because these routes are currently on the landscape and would remain on the landscape. In addition, other management activities that are allowed would occur. These other activities could result in prescribed fire, stumps from thinning, mineral exploration and development, grazing, weed management, etc. These would all affect the apparent naturalness and natural integrity. Solitude is subjective and transient. As noted above, most of the routes lie within areas allocated to management other than roadless or wilderness. Hence, solitude should not be expected. Only the 0.1 mile segment of route 2123 that access the gravel pit for the Beartooth Highway lies within a recommend for wilderness management area (MA-H). That is not consistent with that management area direction. Most of the routes are relatively short segments (some one-way), others create/complete loops, that provide for dispersal of recreation and motorized loop opportunities.

#### **Alternative B**

In Alternative B, 0.6 miles of non-system routes are proposed to be converted to system roads. Table 3-81 shows these miles as two road segments within two IRAs, route 24763 (0.1 miles, South Ingles Creek) and route 20144B (0.5 miles, Stillwater Plateau Trailhead), in the Red Lodge Hellroaring and Fishtail Saddleback IRAs, respectively. Under this alternative, there are 9.4 miles of existing system routes. No routes are proposed to be converted from non-system routes to motorized system trail. In Alternative B, route 27 (Meyers) and route 2092 (Commissary Ridge) are not retained as system routes. The routes proposed to be converted from non-system to system routes lie within areas allocated to management other than roadless or wilderness. Route 24763 is within Management Area R (maintain high quality water for domestic public use) and route 27 is within Management Area E (high mineral potential and existing mineral development). As noted above under Alternative A, route 27 is within Management Area E which in this instance is underlain by the highly mineralized Stillwater Complex.

### **Chapter 3: Affected Environment and Environmental Consequences**

There is no new road construction proposed under this alternative. There would be no change to the function of any of the routes, the type of vehicle used or road standard. Maintenance of these routes would continue into the foreseeable future. Apparent naturalness and natural integrity are improved because there are 4.2 fewer miles of system routes under this alternative when compared to the No Action Alternative. Routes not designated for motorized use are not maintained and begin to blend into the landscape. In addition, other management activities that are allowed would occur. These other activities could result in prescribed fire, stumps from thinning, mineral exploration and development, grazing, weed management, etc. These would all affect the apparent naturalness and natural integrity. Solitude is subjective and transient. Opportunity for solitude varies by site and season of use. If a person avoids peak periods of use and routes, there would be some opportunity to attain solitude. All of the routes lie within areas allocated to management other than roadless or wilderness. Hence, solitude should not be expected. The two routes are short segments, one accesses an existing trailhead.

#### **Alternative C**

In this alternative 0.5 miles of non-system routes are proposed to be converted to system road. The route is 20144B, the Stillwater Plateau Trailhead, located in Fishtail Saddleback IRA. This route accesses the trailhead at the end of the road. No routes are proposed to be converted from non-system routes to motorized system trail.

There is no new road construction proposed under this alternative. There would be no change to the function of any of the routes, the type of vehicle used or road standard. Maintenance of these routes would continue into the foreseeable future. Apparent naturalness and natural integrity are improved because there are 4.2 fewer miles of system routes under this alternative. Routes not designated for motorized use are not maintained and begin to blend into the landscape. In addition, other management activities that are allowed would occur. These other activities could result in prescribed fire, stumps from thinning, mineral exploration and development, grazing, weed management, etc. These would all affect the apparent naturalness and natural integrity. Solitude is subjective and transient. Opportunity for solitude varies by site and season of use. If a person avoids peak periods of use and routes, there would be some opportunity to attain solitude. All of the routes lie within areas allocated to management other than roadless or wilderness. Hence, solitude should not be expected. The two routes are short segments, one accesses an existing trailhead.

#### **No Action Alternative**

In the No Action Alternative, no new routes are proposed to be converted to system routes. No routes are proposed to be converted from non-system routes to motorized system trail. Under this alternative, the Stillwater Plateau Trailhead route, 20144B, is not proposed to be converted to a system route. There are 13.6 miles of existing system routes under this alternative.

The 13.6 miles of existing system routes would continue to have motorized use and be maintained to the same maintenance level for the foreseeable future. There is no new road construction proposed under this alternative. Apparent naturalness and natural integrity do not change because these routes are currently on the landscape and would remain on the landscape. In addition, other management activities that are allowed would occur. These other activities could result in prescribed fire, stumps from thinning, mineral exploration and development, grazing, weed management, etc. These would all affect the apparent naturalness and natural integrity. Solitude is subjective and transient. Opportunity for solitude varies by site and season of use. If a person avoids peak periods of use and routes, there

would be some opportunity to attain solitude. All of the existing routes lie within areas allocated to management other than roadless or wilderness. Hence, solitude should not be expected. Hence, solitude should not be expected.

**Alternative B Modified**

In this alternative, there are 0.6 miles of non-system routes proposed to be converted to system roads. The two road segments proposed to be converted are the same as those under Alternative B, route 24763 (0.1 miles, South Ingles Creek) and route 20144B (0.5 miles, Stillwater Plateau Trailhead), in the Red Lodge Hellroaring and Fishtail Saddleback IRAs, respectively (Table 3-82). No routes are proposed to be converted from non-system routes to motorized system trail. There are 12.6 miles of existing system routes under this alternative, including route 27 (Meyers), and route 2092 (Commissary Ridge).

There is no new road construction proposed under this alternative. There would be no change to the function of any of the routes, the type of vehicle used or road standard. Maintenance of these routes would continue into the foreseeable future. Apparent naturalness and natural integrity are improved because there is one mile less of system routes under this alternative compared to No Action Alternative. Routes not designated for motorized use are not maintained and begin to blend into the landscape. In addition, other management activities that are allowed would occur. These other activities could result in prescribed fire, stumps from thinning, mineral exploration and development, grazing, weed management, etc. These would all affect the apparent naturalness and natural integrity. Solitude is subjective and transient. Opportunity for solitude varies by site and season of use. If a person avoids peak periods of use and routes, there would be some opportunity to attain solitude. The routes lie within areas allocated to management other than roadless or wilderness. Hence, solitude should not be expected. The two routes are short segments, one accesses an existing trailhead.

**Table 3-81. Miles of Route Type within Inventoried Roadless Areas.**

Route Type	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified (Preferred Alternative)
Miles of non-system routes within inventoried roadless areas proposed to be converted to system routes.	1.8	0.6	0.5	0	0.6
Miles of system routes within inventoried roadless areas.	13.6	9.4	9.4	13.6	12.6

**Table 3-82. Miles Of Non-System Routes Proposed To Be System Roads By Inventoried Roadless Area.**

Inventoried Roadless Area Name	Alternative A	Alternative B	Alternative C	No Action	Alternative B Modified (Preferred Alternative)
01363 Red Lodge Crk Hellroaring	0.10	0.10	-	-	0.10
01364 Burnt Mountain	0.25	-	-	-	-
01368 Black Butte	-	-	-	-	-
01369 West of Woodbine	-	-	-	-	-
01371 North Absaroka	-	-	-	-	-
01911 Line Crk Plateau	0.30	-	-	-	-

### Chapter 3: Affected Environment and Environmental Consequences

01912 Beartooth	-	-	-	-	-
01913 Rock Crk	-	-	-	-	-
Fishtail Saddleback	1.12	0.5	0.5	-	0.5
01362 Lost Water Canyon	-	-	-	-	-
Stateline	-	-	-	-	-

#### *Cumulative Effects of Past, Present and Reasonably Foreseeable Programs and Activities with the Travel Management Alternatives*

##### **Effects common to all alternatives**

Cumulative effects of proposed travel plan activities to roadless character are largely the same as the direct and indirect effects discussed earlier in this chapter. Minor additive effects to roadless character (both negative and positive) can be anticipated from the activities described in the previous section: projected combined effects of reasonably foreseeable programs and activities. None of the proposed alternatives and associated cumulative effects would cause irreversible or irretrievable effects to roadless characteristics that would negate future consideration for wilderness designation.

A number of reasonably foreseeable projects could affect roadless characteristics within the next five years. Weed treatment, fuels treatment projects, livestock grazing and range allotment improvements, ongoing trail maintenance and reconstruction, and fire suppression activities all have the potential to have minor cumulative effects to roadless characteristics. Mineral exploration and development, both through hardrock or oil and gas development, could substantially alter roadless characteristics. The exercise of reserved or outstanding rights or continuation, extension or renewal of a mineral lease subject to specified time frames is acknowledged in the Roadless Area Conservation Final Rule as circumstances where the Responsible Official may determine that a road be constructed or reconstructed in an inventoried roadless area. This would be analyzed through site specific NEPA analysis at the time a proposal or plan of operations was received by the Forest Service.

The final Custer National Forest Weed Management Final Environmental Impact Statement (USDA 2006) selected alternative, Alternative 1, did not identify any known weed infestations in recommended wilderness (MA-H), or inventoried roadless areas, and noted that weed monitoring had been infrequent in these areas. However, if discovered, weeds would be treated in these areas consistent with the Weed Management FEIS decision. The selected alternative improves natural integrity in roadless by aggressively treating noxious weeds promoting the restoration of native species. Short term effects to opportunities for solitude are likely if recreationists encounter weed control crews while working in roadless. Apparent naturalness may also be affected in the short term where chemical odors from herbicide treatments persist, or grubbing/pulling/mechanical treatments are obvious.

Fuels treatments are proposed across the Beartooth Ranger District. No projects are proposed in roadless at this time. However, should fuels treatments be proposed in roadless, pre-treatment of fuels prior to burning could result in impacts to apparent naturalness where stumps and slash piles are obvious. During pre-treatment and burning operations, short term impacts to opportunities for solitude could be expected where recreationists encountered crews working with chainsaws, helicopters, etc. Treating fuels could result in short term exposure to weed infestations in burned areas - impacting natural integrity. In the long term, fuel treatment will benefit natural integrity by trending treated areas towards a more natural fire regime.

Ongoing management of range allotments within roadless areas could affect apparent naturalness and natural integrity in some areas. Observers are likely to notice that vegetation has been grazed in some areas and species composition affected. The presence of manure and stock trails would not appear natural to many. Range improvements like fences and watering facilities are an obvious sign of man's work on an otherwise natural appearing landscape. Natural integrity of sites where over grazing occurs could be impacted by erosion, weed infestation, species composition changes, soil compaction, and damage to vegetation.

Administrative activities like trail maintenance, fire suppression and weed control all have the potential to have short term effects on opportunities for solitude, and apparent naturalness, while those projects are underway. Visitors may encounter work crews, camps, motorized and mechanized equipment associated with these projects that may affect opportunities for solitude. Fresh trail construction would not appear natural to some.

In the next five years, growing recreation use from all user types will likely reduce opportunities for solitude in some roadless areas.

### **3.3.5.3 Conclusion - Inventoried Roadless Areas**

As indicated in Table 3-81, Alternative A is the only alternative that would increase the overall miles of motorized routes in Inventoried Roadless Areas compared to the No Action Alternative. Alternatives B, C, and B Modified would reduce the overall miles in Inventoried Roadless Areas by 3.6, 3.7, and 0.4 miles, respectively, when compared to the No Action Alternative.

None of the alternatives would cause irreversible or irretrievable effects to roadless characteristics that would negate future consideration for inclusion in the Wilderness Preservation System. Conversion of non-system routes to system routes is a reversible decision. If areas were established by Congress as wilderness, motorized uses would be prohibited. Those routes could be considered for conversion to foot and/or pack and saddle standards

None of the effects described above would appreciably reduce roadless quality or appreciably compromise the potential to designate roadless lands as wilderness in the future.

All of the alternatives would comply with existing law, regulation, and policy.

## **3.3.6 ECONOMICS**

### **3.3.6.1 Affected Environment – Economics**

#### ***Overview of Changes from the Draft to the Final EIS***

- There were no changes in this section between Draft and Final EIS.

#### ***Economic Area***

The functional economic area that surrounds the District consists of the following eight counties – Big Horn, Carbon, Park, Stillwater, Sweet Grass, and Yellowstone counties in Montana, plus Big Horn and Park counties in Wyoming. These counties, which are all in the Billings, MT economic area

### **Chapter 3: Affected Environment and Environmental Consequences**

(according to the US Department of Commerce Bureau of Economic Analysis), are included because they share a labor market, commuters, and are collectively affected by Custer National Forest management activities and outputs. While Billings is the regional trade center for this economic area, many other communities that surround the District provide both visitors and benefits from tourism and the natural amenities offered by the Beartooth and Pryor Mountain units. The estimated economic impacts to be discussed in the environmental consequences section will be based on this eight-county area, and is referred to as the economic impact area.

#### ***Population***

From 1970 to 2004, population growth of the eight-county area increased by roughly 71,260 people to 223,330. This 47% growth in population outpaced that of the United States, which grew 44% over the same time period. The average growth rate of the eight-county area was slightly more than 1%, with negative growth occurring for only a few years in the late 1980s. The city of Billings dominates the population and economy near the District.

#### ***Economy***

There were approximately 148,315 part and full-time jobs in the economic impact area during 2004 with 263 industries (of 580 possible) represented. There were 82,072 new jobs added between 1970 and 2004 with an average annual growth rate outpacing that of the nation. Three out of four of these new jobs were wage and salary positions and one out of four were proprietors, who by 2004 comprised nearly 24% of all employment. The employment share of the services sector grew most rapidly across the impact area during the 35 year period, while the retail trade sector share decreased the most. Part of the explanation for rapid job growth can be found in the government sector, and in particular the state and local government portion of this sector. State and local government explain 85% of the government sector job growth. However, even with the new jobs that were added to the government sector, its share of total employment in the area actually decreased from 16% to 13%, as it was outpaced by growth in other sectors. Unemployment rates generally fell throughout the period from 1970 (5.4%) to 2005 (3.6%) indicating that competition for jobs has increased.

Total personal income for the 89,339 households was \$6.6 billion for an average of \$73,751 per household in 2004. The average annual growth in income was 2.6%, which was more than double the population growth rate. This is reflected by the marked increase in the inflation adjusted per capita personal income change from \$17,975 during 1970 to \$29,503 during 2004. However, the shifting workforce and age demographics hide the fact that the inflation adjusted earnings per job increased only slightly from \$32,213 to \$32,683 during this period. Non-labor income sources showed stronger growth at an average annual rate of 3.5% compared to labor earnings, which only grew at 2.2% annually during the 35 year period. The percent of total income represented by non-labor sources grew from 25% during 1970 to 34% during 2004.

#### ***Motorized and Non-motorized Use***

One of the issues of travel management planning is the economic effects (i.e., economic impacts) of motorized and non-motorized uses. Various sources of information are used to display use and trends in motorized and non-motorized use in Montana and on the Custer National Forest. Vehicle registration from the Montana Department of Justice, Motor Vehicle Registration Bureau was used to understand the state-wide trend in snowmobiles, ATVs and Motorcycles (MT Dept. of Justice, 2005). Results from a statistically rigorous sampling regime used by the Forest Service National Visitor Use Monitoring survey (NVUM) describe total forest-level use (visits) and use by various motorized and

non-motorized activities.

***National Visitor Use Monitoring (NVUM)***

The NVUM survey process was implemented as a response to the need to better understand recreation use occurring on National Forest System lands (Kocis et al. 2003). From October 2001 through September 2002, the Custer National Forest participated in the NVUM survey process. A final report of the survey findings was published in August 2002 (Kocis et al. 2003). Examples of information provided in the Custer National Forest report include: 1) total number of visits; 2) participation rates; and 3) user satisfaction. The survey also collected information regarding user spending within 50 miles of the National Forest boundary. Users reported expenditures for various spending categories, such as groceries, restaurants, gas/oil, and lodging. The specific spending profiles and expenditures are found in Stynes (2005) and White (2006).

The final report indicates that 758,344 national forest visits (the 90% confidence interval ranges from 666,357 to 850,331) occurred on the Custer National Forest during the survey period (October 2001 through September 2002). A forest-level review of the NVUM numbers indicated that approximately 75 percent of these visits occur on the District.

The following Table presents participation rates by activity for the Custer National Forest during the NVUM survey period. The % Participation column of the table presents the participation rates by activity and will exceed 100% since visitors may participate in multiple activities. The % as Primary Activity column presents the participation rates in terms of visitors' self-selected primary activity. Hunting was the highest ranked primary activity with 15.3% of study participants. Fishing was also popular as a main activity with 11.1% of participants listing this as their primary activity. The Table indicates that the six most popular non-wildlife related primary activities were: 1) hiking / walking (14.5%); 2) downhill skiing (13.5%); 3) viewing natural features (11.3%); 4) relaxing (6.6%); 5) driving for pleasure (5.0%), and (6) developed camping (5.0%).

The primary activity participation rates (% as Primary Activity) were used to estimate use by activity. For this analysis, motorized use was defined as OHV use, snowmobiling, driving for pleasure, motorized water activities and other motorized activities. Non-motorized was defined as backpacking, hiking / walking, horseback riding, bicycling, cross-country skiing, and other non-motorized. Aggregated, visitors listing motorized use as the primary activity represented 7.2% of visiting population, while visitors listing non-motorized use as the main activity represented 19.1% of visiting population. The estimated number of visits by activity is based on the primary purpose (% as Primary Activity) and the total number of visits (758,344) reported in the Custer National Forest NVUM report.

**Table 3-83. Custer NF Activity Participation and Primary Activity**<sup>73</sup>

Activity	% Participation	% as Primary Activity	Estimated Number of Primary Visits
Developed Camping	14.9	5.0	37,917
Primitive Camping	3.9	0.7	5,308
Backpacking	7.2	1.9	14,409
Resort Use	1.8	0.0	0
Picnicking	15.0	2.1	15,925
Viewing Natural Features	49.4	11.3	85,693
Visiting Historic Sites	8.3	0.5	3,792
Nature Center Activities	6.1	0.0	0
Nature Study	8.8	0.0	0
Relaxing	26.8	6.6	50,051
Fishing	19.6	11.1	84,176
Hunting	16.2	15.3	116,027
OHV Use	2.9	1.6	12,134
Driving for Pleasure	26.7	5.0	37,917
Snowmobiling	0.0	0.0	0
Motorized Water Activities	1.3	0.0	0
Other Motorized Activities	1.0	0.6	4,550
Hiking / Walking	40.2	14.5	109,960
Horseback Riding	0.5	0.3	2,275
Bicycling	3.9	2.1	15,925
Non-motorized Water	0.8	0.0	0
Downhill Skiing	14.0	13.5	102,376
Cross-country Skiing	1.3	0.0	0
Other Non-motorized	1.3	0.3	2,275
Gathering Forest Products	7.8	0.0	0
Viewing Wildlife	42.9	1.0	7,583
<b>TOTAL</b>	<b>207.2</b>	<b>93.4</b>	<b>708,293</b>

Users are determined to be either local or non-local based on the miles from the user’s residence to the forest boundary. If the user reported living within 50 miles of the forest boundary, they are considered local; if over 50 miles, they are considered non-local. The majority of Custer National Forest visitors were non-local (66%) with fewer local visitors (34%). This pattern of use is unusual when compared to other forests, where the majority of visitors are local. However, many of the visitors to the Custer National Forest come from the Billings, Montana area, which is more than 50 miles away; therefore, these visits are considered to be non-local. Based on economic surveys conducted as part of NVUM, visitors to the Custer National Forest are considered low spending visitors compared to peers at all forests across the country.

<sup>73</sup> Source: Custer National Forest, National Visitor Use Monitoring Results, August 2003 (Kocis et. al 2003)

Note: The primary activity and estimated number of primary visits columns total less than 100% and 758,344 because some visitors did not report a primary activity.

The following table indicates the number of visits and the expenditures (\$ per visit) for the different motorized and non-motorized activities occurring on the Custer National Forest. Of the non-motorized activities, cross-country skiers spend the most per visit (\$16 for local users and \$44 for non-local users). However, the use data indicates that very little cross country skiing occurs on the Custer. The majority of non-motorized use is for hiking/walking by local users, with nearly seven times the visits of the next most numerous non-motorized activity, biking by local users. From the standpoint of motorized activities, snowmobilers spend the most per visit (\$28 for locals and \$61 for non-locals), though the use data also indicates very little snowmobiling on this forest. Driving for pleasure is the motorized activity associated with the greatest number of visits.

**Table 3-84. Number of Visits and Expenditures by Activity Type**

Activity	Use (Visits) <sup>74</sup>		Expenditures (\$ per Visit) <sup>75</sup>	
	Local	Non-local	Local	Non-local
<b>Non-motorized</b>				
Horseback Riding <sup>76</sup>	756	1,489	\$12	\$35
Backpacking <sup>76</sup>	4,766	9,378	\$12	\$35
Hiking / Walking <sup>76</sup>	36,512	71,846	\$12	\$35
Bicycling <sup>76</sup>	5,169	10,171	\$12	\$35
Cross-country Skiing	0	0	\$16	\$44
Other non-motorized <sup>76</sup>	782	1,538	\$12	\$35
<b>Motorized</b>				
OHV	3,908	7,691	\$22	\$35
Driving for Pleasure <sup>77</sup>	12,608	24,809	\$13	\$28
Snowmobiling	0	0	\$28	\$61
Other Motorized <sup>77</sup>	1,513	2,977	\$10	\$28

***Trends in Motorized Use***

The following Figure shows the trend in the number of registered ATVs, snowmobiles, and motorcycles (street and dirt bikes) in Montana (MT Dept. of Justice 2005). This information is useful in gauging the popularity of outdoor activities that use this equipment since trend information is difficult to obtain for these types of dispersed activities. In general, the data indicates an upward trend in recreational vehicle ownership in Montana. The average annual growth rates for ATVs, snowmobiles, and motorcycles are 9.7%, 5.4%, and 7.3%, respectively. This compares to an average annual population growth rate in Montana of approximately 1% during this time period. The growth rate in registration far exceeds the population growth rate, indicating either those activities that use this equipment are gaining popularity and/or compliance with registration requirements has increased.

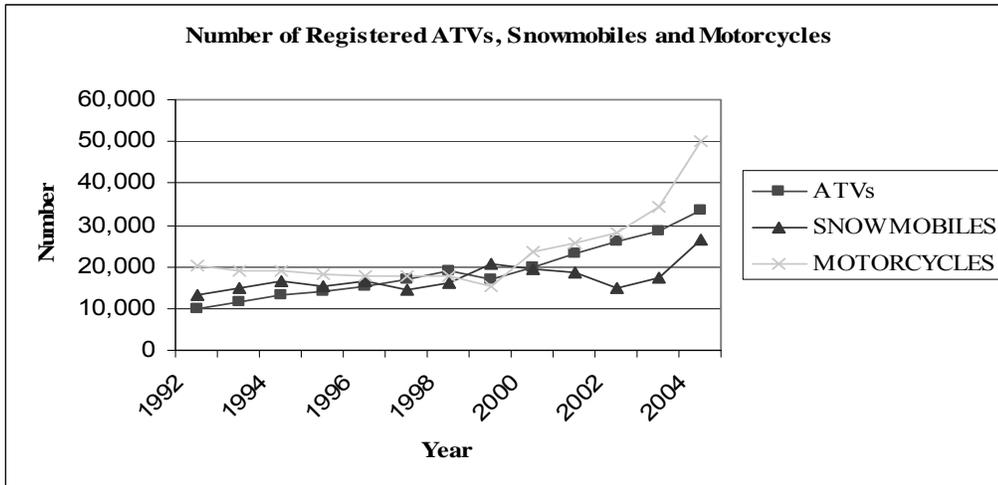
<sup>74</sup> Custer National Forest, National Visitor Use Monitoring Results, August 2003

<sup>75</sup> Stynes Daniel J.; White Eric M. 2006. Spending Profiles for National Forest Recreation Visitors by Activity

<sup>76</sup> Horseback Riding, Backpacking, Hiking/Walking, Bicycling, and Other non-motorized activities share the same spending profile.

<sup>77</sup> Driving for Pleasure and Other Motorized activities share the same spending profile.

Figure 3-3. Number of Registered ATVs, Snowmobiles, and Motorcycles in Montana, 1992-2004



### 3.3.6.2 Environmental Consequences - Economics

#### *Direct, Indirect and Cumulative Effects*

##### **Effects Common To All Alternatives**

The assessment of economic impacts attempts to identify potential effects that Forest Service travel management planning may have on local, county, and regional economic systems. In particular, this analysis is used to address the questions: (1) would changes in the management of the National Forest for recreation and the amount of change in the motorized/non-motorized designation of Forest roads and trails be large enough or significant enough to cause measurable economic changes? (2) Is the economy of the local area diverse enough and robust enough that the proposed changes will be insignificant or will they be felt in very specific segments of the local economy?

##### **Economic Effects Analysis Methodology**

Economic effects can be categorized as direct, indirect and induced. Direct effects are changes associated with the initial spending by a recreation visitor. Indirect and induced effects are the multiplier effects resulting from subsequent rounds of spending in the local economy.

Employment and labor income effects were estimated for: 1) all current recreation use (i.e., wildlife and non-wildlife recreation activities) on the Forest, and 2) current motorized and non-motorized activities occurring on the Forest. Economic effects tied to all recreation visitations were estimated to establish total economic effects tied to recreation activities on the Forest. Economic effects tied to motorized and non-motorized activities were estimated to address the economic impact issues tied directly to travel management planning. Also, the marginal economic effects (employment and labor income effects per 10,000 visits) of motorized and non-motorized use are provided. The marginal effects (i.e., response coefficients) are useful for performing sensitivity analyses of various management alternatives.

Input-output analysis was used to estimate the direct, indirect and induced employment and labor income effects stemming from motorized and non-motorized use. Input-output analysis (Hewings

1985) is a means of examining relationships within an economy both between businesses as well as between businesses and final consumers. It captures all monetary market transactions for consumption in a given time period. The resulting mathematical representation allows one to examine the effect of a change in one or several economic activities on an entire economy. This examination is called impact analysis. Input-output analysis requires the identification of an economic impact area. The economic area that surrounds the Custer National Forest was previously defined, and consists of six counties in south central Montana and two counties in Northern Wyoming, stretching from Cody to Big Timber to Billings.

The IMPLAN Pro input-output modeling system and 2004 IMPLAN data (the most recent data available) were used to develop the input-output model for this analysis (IMPLAN Professional 2004). IMPLAN translates changes in final demand for goods and services into resulting changes in economic effects, such as labor income and employment of the affected area's economy. For the economic impact area, employment and labor income estimates that were attributable to all current recreation use (wildlife and non-wildlife activities) and only motorized and non-motorized activities for the Forest were generated.

The expenditure and use information collected by the NVUM survey are crucial elements in the economic analysis. As reported earlier, the NVUM survey collects use and expenditure information for various activity types. The expenditure information is collected by eight spending categories (Stynes and White 2005 and 2006). The reported spending for each of the spending categories is allocated to the appropriate industry within the IMPLAN model (the allocation process, also referred to as "bridging," was conducted by the USDA Forest Service, Planning Analysis Group in Fort Collins, CO). The bridged IMPLAN files were used to estimate economic effects (e.g., employment and labor income) related to changes in spending (i.e., changes in spending, technically referred to as changes in final demand, are caused by changes in use).

### **Estimated Economic Effects**

Estimated economic effects (full and part-time jobs and labor income) are presented. Estimated economic effects are displayed in the following ways: 1) Estimated employment and labor income based on all local and non-local recreation visitation occurring on the Forest; 2) Estimated employment and labor income by motorized and non motorized activity types; and 3) Direct, indirect, and induced employment and labor income response coefficients by activity type (jobs and labor income per 10,000 visits).

The following Table displays the estimated employment and labor income effects for all recreation visitation (i.e., wildlife and non-wildlife visitation) to the Forest. There were a total of 697,676 primary visits to the Forest during the sampling period (Note: The number of primary visits is slightly less than the total visits reported in the NVUM report. Non-primary visitation to the Forest was eliminated from the economic effects analysis since these users were not coming primarily to recreate on the Forest). Approximately 66% of the visits to the Forest were attributable to non-local users. The results indicate that there were 518 total jobs (direct plus multiplier effect) and \$10.9 million of total labor income (direct plus multiplier effect) attributable to the total non-wildlife and wildlife recreation. Of this there were 62 total jobs (direct plus multiplier effect) and \$1.3 million of total labor income (direct plus multiplier effect) attributable to the local visitation. There were approximately 456 total jobs (direct plus multiplier effect) and \$9.5 million of total labor income (direct plus multiplier effect) attributable to non-local recreation users.

**Table 3-85. Estimated Employment and Labor Income Effects for All Current Recreation Use Reported by NVUM**

<b>Economic Effects Based on Local Use (235,087 visits)</b>			
	<b>Direct Effects</b>	<b>Indirect &amp; Induced Effects</b>	<b>Total Effects</b>
Jobs	46	16	62
Labor Income (M \$)	\$879.6	\$455.3	\$1,334.0
<b>Economic Effects Based on Non-local Use (240,820 visits)</b>			
	<b>Direct Effects</b>	<b>Indirect &amp; Induced Effects</b>	<b>Total Effects</b>
Jobs	338	118	456
Labor Income (M \$) <sup>78</sup>	\$6,258.9	\$3,290.5	\$9,549.5

In the eight-county economic area, the total employment in the economy in 2004 was 148,315 jobs with \$4.9 billion dollars in labor income (IMPLAN 2004). All employment and labor income activities attributable to recreation activities on the Forest accounted for less than one-quarter of one percent of the total employment and total labor income in the economic area.

**Motorized and Non-motorized Use**

The following Table displays the estimated employment and labor income effects for current use levels reported by NVUM for local and non-local motorized and non-motorized activities. In general, the estimated economic effects are a function of the number of visits and the dollars spent by the visitors. For example, non-local users typically spend more money per visit than local users. Also, activities that draw more users will be responsible for more economic activity in comparison to activities that draw fewer users, holding constant spending per visit. Given the analysis is dependent on visitation and expenditure estimates, any changes to these estimates affect the estimated jobs and labor income.

The Table indicates that approximately 72 total jobs (direct, indirect and induced) and \$1.463 million in total labor income was attributable to non-motorized activities on the Forest, with about 12% due to local users and 88% to non-local users. The vast majority (76%) of these jobs and income were associated with hiking/walking.

Motorized activities were responsible for approximately 22 total jobs (direct, indirect and induced) and \$447,773 in total labor income (direct, indirect and induced), with 83% of these jobs and income associated with non-local uses. Driving for pleasure on the Forest accounted for approximately 15 total jobs (69% of the motorized total) and \$302,302 in total labor income (67% of the motorized total). OHV use on the Forest accounted for approximately 5 total jobs (23% of the motorized total) and \$110,110 in total labor income (25% of the motorized total). Together, motorized and non-motorized activities accounted for approximately 18% of the jobs and income associated with recreational activity on the Forest, with motorized activities accounting for around 4% and non-motorized activities accounting for 14%.

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<sup>78</sup> Labor Income is reported in 2004\$.

**Table 3-86. Employment and Labor Income Effects by Activity Type**

Activity	Employment Effects (full & part-time jobs)		Labor Income Effects (\$) <sup>79</sup>	
	Direct	Indirect & Induced	Direct	Indirect & Induced
<b>Non-motorized Use</b>				
Local Horseback Riding	0.1	0.0	\$1,933.2	\$1,000.9
Non-local Horseback Riding	0.7	0.3	\$13,319.9	\$6,811.7
Local Backpacking	0.6	0.2	\$12,179.2	\$6,305.9
Non-local Backpacking	4.7	1.6	\$83,915.7	\$42,913.9
Local Hiking / Walking	4.7	1.8	\$93,309.2	\$48,312.2
Non-local Hiking / Walking	35.9	12.2	\$642,909.6	\$328,779.4
Local Bicycling	0.7	0.3	\$13,210.2	\$6,839.8
Non-local Bicycling	5.1	1.7	\$91,019.7	\$46,546.8
Local Cross-county Skiing	0.0	0.0	\$0.0	\$0.0
Non-local Cross-county Skiing	0.0	0.0	\$0.0	\$0.0
Local Other Non-motorized	0.1	0.0	\$1,997.6	\$1,034.3
Non-local Other Non-motorized	0.8	0.3	13,763.9	\$7,038.8
<b>Total</b>	<b>53.4</b>	<b>18.5</b>	<b>\$967,558.2</b>	<b>\$495,583.9</b>
<b>Motorized Use</b>				
Local OHV	0.9	0.3	\$17,226.5	\$9,027.9
Non-local OHV	2.8	1.1	\$54,709.7	\$29,146.0
Local Driving for Pleasure	1.8	0.6	\$32,907.1	\$17,099.7
Non-local Driving for Pleasure	9.4	3.2	164,847.7	\$87,447.6
Local Snowmobiling	0.0	0.0	\$0.0	\$0.0
Non-local Snowmobiling	0.0	0.0	\$0.0	\$0.0
Local Other Motorized	0.2	0.1	\$3,092.2	\$1,606.9
Non-local Other Motorized	1.2	0.4	20,034.2	\$10,627.7
<b>Total</b>	<b>16.1</b>	<b>5.7</b>	<b>\$292,817.5</b>	<b>\$154,955.8</b>

**Response Coefficients by Activity Type**

The following Table displays the estimated employment and labor income response coefficients (employment and labor income per 10,000 visits) for local and non-local motorized and non-motorized activities. The response coefficients indicate the number of full and part-time jobs and dollars of labor income per ten thousand visits by activity type. The response coefficients are useful in: 1) understanding the economic effects tied to a given use level; 2) understanding projected employment effects for various use scenarios described in other sections of this DEIS (sensitivity analysis); and 3) understanding the differences in employment effects by activity type. The response coefficients displayed in following Table along with the visits presented in previous Tables were used to estimate the economic effects for local and non-local use by activity type.

As shown in the following Table, the economic effects tied to local visitation are generally lower than for non-local visitation. This is a result of local visitors spending less per visit in comparison to non-local visitors (see previous Table, titled Number of Visits and Expenditures by Activity Type). Additionally, economic effects vary widely by activity type. Based on employment impacts, the

<sup>79</sup> Dollars are for 2004 \$.

**Chapter 3: Affected Environment and Environmental Consequences**

strongest employment effect modeled is tied to non-local snowmobiling, followed closely by non-local cross-country skiing. However, the data for the Forest shows very little of these types of activities occurring on the forest. The smallest economic effects are associated with local horseback riding, backpacking, hiking/walking, and bicycling (Note: the economic effects are identical for these categories since they share the same spending profile). In general, economic effects vary by the amount of spending and by the type of activity, but it cannot be generalized that motorized or non motorized activities contribute more or less to the local economy on a per visit basis.

**Table 3-87. Employment and Labor Income Response Coefficients by Activity Type**

Activity	Employment (Jobs / 10,000 Visits)		Labor Income (\$ / 10,000 Visits) <sup>80</sup>	
	Direct Effects	Indirect & Induced Effects	Direct Effects	Indirect & Induced Effects
<b>Non-motorized Use</b>				
Local Horseback Riding	1.3	0.5	\$25,556	\$13,232
Non-local Horseback Riding	5.0	1.7	\$89,485	\$45,762
Local Backpacking	1.3	0.5	\$25,556	\$13,232
Non-local Backpacking	5.0	1.7	\$89,485	\$45,762
Local Hiking / Walking	1.3	0.5	\$25,556	\$13,232
Non-local Hiking / Walking	5.0	1.7	\$89,485	\$45,762
Local Bicycling	1.3	0.5	\$25,556	\$13,232
Non-local Bicycling	5.0	1.7	\$89,485	\$45,762
Local Cross-country Skiing	2.1	0.7	\$37,942	\$19,644
Non-local Cross-country Skiing	6.7	2.2	\$115,987	\$61,643
Local Other Non-motorized	1.3	0.5	\$25,556	\$13,232
Non-local Other Non-motorized	5.0	1.7	\$89,485	\$45,762
<b>Motorized Use</b>				
Local OHV	2.2	0.8	\$44,076	\$23,099
Non-local OHV	3.6	1.4	\$71,138	\$37,898
Local Driving for Pleasure	1.4	0.5	\$26,101	\$13,563
Non-local Driving for Pleasure	3.8	1.3	\$66,448	\$35,249
Local Snowmobiling	2.8	1.1	\$56,198	\$28,953
Non-local Snowmobiling	8.3	2.7	\$144,473	\$76,403
Local Other Motorized	1.1	0.4	\$20,439	\$10,621
Non-local Other Motorized	3.9	1.3	\$67,296	\$35,699

**Cumulative Effects-Economics**

The economy can be affected by a variety of factors including population growth, changes in interest rates, location of new magnet industries, recession, growth of new sectors, tax policy, State economic policy, etc. When compared to these kinds of variables, the management of travel and recreation on the National Forest has a relatively small effect. Most of the area of south central Montana and the Greater Yellowstone area outside Carbon, Stillwater, Park, and Sweet Grass counties are also in an economic growth pattern and activities in the larger area will likely affect the functional economic area positively. Because the decisions of Travel Management will have little direct and indirect effects on the economic area, there should be no cumulative effects.

<sup>80</sup> Dollars are for 2004 \$

**3.3.6.3 Conclusion - Economics**

For the eight-county functional economic area used in this analysis, the total economic effects of recreation overall, and specifically recreation tied to motorized and non-motorized activities, are very small compared to the total economic activity in the area. Though changes in use attributable to the alternatives outlined in this report are difficult to estimate, even large changes in use would have little effect on the overall economy of the eight-county area.

**- End of Chapter 3 -**

# Chapter 4 - Consultation, Distribution, List of Preparers, References, and Glossary

## 4.1 CONSULTATION

### 4.1.1 PUBLIC PARTICIPATION SUMMARY

Chapter 2 details the public participation to date. The initial scoping document (Project Record) was sent on February 2, 2004 to approximately 91 individuals, government agencies, tribal governments, news media, businesses, and organizations that have shown interest in similar projects on the Custer National Forest. The public comment period ended on May 1, 2004. A legal advertisement inviting comments was placed in the Billings Gazette (Billings, MT) in February 2, 2004, summarizing the information provided in the document. News releases were sent to local newspapers.

Public meetings were held in Red Lodge, Pryor, Bridger, Billings, and Columbus, Montana and Lovell, Wyoming in February 2004 to discuss the scoping document. Public meetings were also held in Red Lodge, Bridger, Billings, and Columbus, Montana and Lovell, Wyoming in July 2006.

Seven collaboration meetings were held over a period of four months in early 2007 (January through April). The attendance at the collaboration sessions ranged from 65 to 159 individuals. The attendees worked together during these seven half day sessions reviewing information and maps to identify points of agreement. While no specific collaborative alternative was developed, several points of agreement on roads and trails were reached (see Table 2-1).

In response to these efforts, over 5000 letters, personal comments, or phone calls were received. Collaborative group session information was documented and reviewed. The analysis of electronic, written and verbal comments preliminarily identified several potential issues. Some of these issues were identified as significant issues and were used to formulate many elements of the alternatives.

The Draft EIS was published in the Federal Register October 5, 2007 which began a 60 day comment period (original 45 day comment period with a 15 day extension). Also, a news release was provided to local news media at the beginning of the comment period. The Draft EIS was made available to interested parties identified in the updated EIS mailing list. In response to the comment period, over 500 letters, personal comments, or phone calls were received. A content analysis of the comments was conducted and response to comments is found in Chapter 5.

### 4.1.2 CONSULTATION WITH OTHERS

The following agencies were consulted during preparation of the EIS:

U.S. Fish and Wildlife Service  
Montana Department of Fish, Wildlife, and Parks  
Bureau of Land Management

Coordination with the Crow Tribe has been ongoing in the form of the original project scoping letter, public meetings, agency meetings, letter correspondences and proposed/scheduled field trips which

## Chapter 4: Consultation, Distribution, List of Preparers, References, and Glossary

outlined the proposed project specifics and requested any concerns that they may have regarding cultural resources or traditional cultural properties. This coordination effort is intended to insure that any tribal concerns or comments are addressed throughout the NEPA process in regards to ARPA, AIRFA, NAGPRA and/or Bulletin 38 issues.

### 4.2 DISTRIBUTION

This document has been distributed in hardcopy or electronic format to individuals that have expressed an interest in the project and receiving this document, and to the officials, agencies, firms, and organizations listed below

#### U.S. Federal Officials

Honorable Denny Rehberg – Congressman  
Honorable John Tester – Senator  
Honorable Max Baucus – Senator

#### U.S. Federal Agencies

Advisory Council on Historic Preservation  
USDA APHIS PPD/EAD  
Natural Resources Conservation Service  
USDA National Agricultural Library  
U.S. Army Corps of Engineers, Northwestern Division  
Environmental Protection Agency  
U.S. Department of Interior, Office of Environmental Policy and Compliance  
Northwest Power Planning Council  
Federal Aviation Administration  
Federal Highway Administrator  
U.S. Department of Energy

#### Native American Tribes

The Crow Tribe

#### Local Officials

Albert Brown – Carbon County Commissioner  
David Davidson – Carbon County Commissioner  
John Prinkki – Carbon County Commissioner  
Dennis Hoyem – Stillwater County Commissioner  
Maureen Davey – Stillwater County Commissioner  
Jerry L. Friend – Stillwater County Commissioner  
Elaine Allstad – Sweetgrass County Commissioner  
Lloyd Berg – Sweetgrass County Commissioner  
Phillip Hathaway – Sweetgrass County Commissioner  
Larry Lahren – Park County Commissioner  
Jim Durgan – Park County Commissioner  
Dick Murphy – Park County Commissioner  
Bill Kennedy – Yellowstone County Commissioner  
Jim Reno – Yellowstone County Commissioner  
John Ostlund – Yellowstone County Commissioner

#### Libraries

Billings Parmly Library  
Stillwater County Library  
Bridger Public Library  
Red Lodge Carnegie Library

#### Organizations and Firms

Montana River Action  
Yellowstone Valley Audubon Society  
Greater Yellowstone Coalition  
Montana Native Plant Society  
Treasure State ATV Association  
Voyageur Outward Bound  
Pryor Mountain Wild Mustang Center  
Wiley Church  
Montana Pilot's Association  
Billings Rod and Gun Club  
Capital Trail Vehicle Association  
Families for Outdoor Recreation  
Montana Wilderness Association  
Beartooth Back Country Horsemen  
Montana Fish, Wildlife, and Parks  
Beartooth Mountain Christian Ranch  
Montana Wilderness Association  
Families for Outdoor Recreation  
Montana 4X4 Association  
Treasure State ATV Association  
Citizens for Balanced Use  
International Mountain Bike Association  
Rimrock 4X4 Club  
Outdoors Montana  
Billings Motorcycle Club  
American Motorcycle Association  
Magic City Four Wheelers  
Park City Recreation Association  
Frontier Heritage Alliance  
Montana Snowmobile Association  
Treasure State Alliance  
Quiet Trails  
Montana Wildlife Federation  
Stillwater Protective Association  
Yellowstone River Parks Association  
Yellowstone Valley Cycling Club  
Northern Plains Resource Council  
Montana Multiple Use Association  
Bench Ranch Guest and Guide Services  
GeoScience Associates, Inc.  
Paint Brush Adventures  
Benbow ATV Rentals

### 4.3 LIST OF PREPARERS

The following people prepared the EIS in an interdisciplinary manner.

**Babete Anderson, Public Affairs Specialist/Executive Assistant, USDA Forest Service**

Contribution: Human Environment

Education: Embry Riddle Aeronautical University, Montana State University-Billings

Experience: 22 years in public information with the USDA, Forest Service.

**Mike W. Bergstrom, Zone Archaeologist, USDA Forest Service**

Contribution: Cultural Resources; Archeological Resources

Education: B.S., Sociology - Anthropology Option

Experience: 23 years as an archaeologist, 13 years with the USDA Forest Service

**Brenda Christensen, Civil Engineer, USDA Forest Service**

Contribution: Public Safety; Maintenance and Administration of Roads and Trails; Editing

Education: B.S., Civil Engineering

Experience: 19 years as a Civil Engineer with USDA Forest Service; Registered Professional Engineer since 1994 in the state of Oregon.

**Doug Epperly, Recreation Program Manager, USDA Forest Service**

Contribution: Project Leader; Chapters 1 and 2; Implementation and Enforcement; Editing

Education: B.S., Forestry

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**Krista Gebert, Regional Economist (Acting), USDA Forest Service**

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Education: M.A., Economics, B.A., Economics

Experience: Economist with the USDA FS Rocky Mountain Research Station since 1996.

**Jeff Gildehaus, Outdoor Recreation Planner, USDA Forest Service**

Contribution: Recreation

Experience: 19 years in Recreation with the USDA Forest Service

**Mary Gonzales, GIS Specialist, USDA Forest Service**

Contribution: Mapping

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Experience: 5 years as a GIS Specialist and 15 years as a Culturist with USDA Forest Service

**Thomas Highberger, Outdoor Recreation Planner, USDA Forest Service**

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Contribution: Soils

Education: B.S. Forest Resource Management; M.S. Soils.

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Contribution: Water Quality

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Experience: 20 years as a Hydrologist with USDA Forest Service

**Pat Pierson, Geologist, USDA Forest Service**

Contribution: Proposed Action and Alternative Development

Education: B. S. Forest Management, B. S. Geology

Experience: 30 years in Natural Resource Management with USDA Forest Service

**Barbara Pitman, Wildlife Biologist, USDA Forest Service**

Contribution: Wildlife and Habitat

Education: B.S., Geology, and further education in Wildlife Biology

Experience: 7 years as Wildlife Biologist with USDA Forest Service

**Kim Reid, Range Management Specialist, USDA Forest Service**

Contribution: Vegetation Ecology; Weeds; Sensitive Plants; Editing

Education: B.S., Range Management

Experience: 29 years in Range Management, Field Ecology, and Botany with USDA Forest Service

**Jeff Stockwell, Fire Management Officer, USDA Forest Service**

Contribution: Proposed Action and Alternative Development

Education: B.S. Forestry

Experience: 20 years in Fire Management with USDA Forest Service

**Keith Stockmann, Economist, USDA Forest Service**

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Education: B.A., Economics, M.S., Environmental Studies and Ph.D., Forestry

Experience: 7 years as an Economist with USDA Forest Service

**Darin A. Watschke, Fisheries Biologist, USDA Forest Service**

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**Allie Wood, Wilderness and Trails, USDA Forest Service**

Contribution: Proposed Action and Alternative Development

Education: B.S. Natural Resource Management

Experience: 15 years in Wilderness and Trails Management with USDA Forest Service

**Annette Yeager, Natural Resource Specialist, USDA Forest Service**

Contribution: Project File Management

Education: B.S. Biology

Experience: 10 years in Natural Resource Management with USDA Forest Service

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#### **4.4.3.2 Human Environment**

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- USDA, Forest Service, Record of Decision for Land and Resource Management Plan and Environmental Impact Statement for the Custer National Forest and National Grasslands. 1987.
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#### **4.4.10 ECONOMICS**

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## Chapter 4: Consultation, Distribution, List of Preparers, References, and Glossary

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Stynes, D.J. and E.W. White. 2005. Spending Profiles of National Forest Visitors, NVUM Four Year Report. East Lansing, Michigan: Michigan State University, Department of Recreation and Tourism and Department of Forestry, May 2005.

### 4.5 GLOSSARY

**Area** – A discrete, specifically delineated space that is smaller, and in most cases much smaller, than a Ranger District.

**Designated Road, Trail, or Area** - A National Forest System road, a National Forest System trail, or an area on National Forest System lands that is designated for motor vehicle use pursuant to 36 CFR 212.51 on a motor vehicle use map. (36 CFR 212.1)

**Designation** – Motor vehicle use on NFS roads and trails, and in areas on NFS lands shall be designated by vehicle class and, if appropriate, by time of year.

**Forest Road or Trail** - A forest road or trail is a road or trail wholly or partly within, or adjacent to, and serving the National Forest System and which is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources. (23 USC 101)

**Motor Vehicle Use Map (MVUM)** – - Map required by the 2005 Motorized Travel Rule that indicates designated roads, trails and areas.

**National Forest System Road (System Road)** - A forest road other than a road which has been authorized by a legally documented right-of-way held by a State, *county* or other local public road authority. (36 CFR 212.1, 36 CFR 251.51, 36 CFR 261.2)

**National Forest System Trail (System Trail)** - A forest trail other than a trail which has been authorized by a legally documented right-of-way held by a State, county or other local public road authority. (36 CFR 212.1)

**Off-highway Vehicle** – Any motor vehicle designed for or capable of cross-country travel on or immediately over land, water, snow, ice, marsh, swampland or other natural terrain.

**Road** – A motor vehicle route over 50 inches wide, unless identified and managed as a trail.

**Route Decommissioning** – Activities that result in the stabilization and restoration of unneeded roads to a more natural state.

**Season of Use** - The time of year that a system road is designated for use.

**Temporary road or trail** – A road or trail necessary for emergency operations or authorized by contract, permit, lease, or other written authorization that is not a forest road or trail and that is not included in a forest transportation atlas.

**Trail** – A route 50 inches or less in width or a route over 50 inches wide that is identified and managed as a trail.

**Unauthorized road (non-system road)** – A road or trail that is not a forest road or trail.

**Other Relevant Info:** State laws regarding operation of motor vehicles apply to system roads; state laws regarding operation of motor vehicles do not apply to system trails. (CFR's defer to state laws on system roads.).

**- End of Chapter 4 -**

# Chapter 5 – Response to Comments

## 5.1 PUBLIC COMMENT ANALYSIS PROCESS

Content analysis of comments received on the DEIS was conducted. Public comments were received in the form of letters or postcards, electronic mail (e-mail), phone calls, and facsimiles. A Content Analysis Team reviewed all the comments on the DEIS. Substantive comments from each letter, e-mail, or form were identified. Each issue or topic was assigned to a subject area and a response number and the various comments dealing with that topic or issue were grouped under the response number heading. A response was written for each topic or issue that was identified. All of the responses are grouped by subject area and provided in this chapter.

Respondent's and agency names are listed below with response numbers to allow the reader to see how their comments were responded to or used. Persons wishing to find responses to their comments on the DEIS should locate their name and assigned codes below and the corresponding ID Team response. For example:

Alderson, George & Frances	MGMT-11, R-6, WL-9
Alexander, Jenny	R-2

The only agency comment letters received on the project were from the Environmental Protection Agency, USDI-Office of Environmental Policy and Compliance, and the State of Montana Department of Natural Resources and Conservation. These letters are included in Appendix H.

Agency Names	DEIS Response Numbers
State of Montana, Department of Natural Resources and Conservation, Southern Land Office	MISC-38
U.S. Environmental Protection Agency, Region 8 MT Office	F-2, F-3, H-2, IMP-1, MGMT-3, MISC-15, MISC-16, MISC-35, MTCE-1, MTCE-4, S-2, V-5, WL-3, WQ-1, WQ-2, WQ-16
USDI Office of Environmental Policy & Compliance	No Comment

Organization Names	DEIS Response Numbers
Beartooth Back Country Horseman	IMP-1, MISC-43, R-2
Billings Motorcycle Club	R-7
Capital Trail Vehicle Association	E-1, E-2, E-4, E-7, E-12, H-1, H-2, H-3, H-4, IMP-1, MGMT-4, MGMT-5, MGMT-6, MGMT-7, MGMT-8, MGMT-9, MISC-2, MISC-4, MISC-5, MISC-6, MISC-8, MISC-9, MISC-10, MISC-13, MISC-14, MISC-17, MISC-18, MISC-24, MISC-28, MISC-35, MISC-45, MISC-47, MISC-48, MISC-51, MISC-52, MISC-54, MISC-55, MISC-65, MISC-66, MISC-67, MISC-69, MTCE-2, MTCE-4, N-1, R-1, R-4, R-5, R-6, R-8, R-9, R-11, R-15, S-3, SA-1, SOU-1, SOU-2, SOU-4, V-24, WL-6, WL-12, WL-14, WL-17, WL-24, WL-26, WL-40, WQ-13, WQ-14,
Citizens for Balanced Use	E-2, E-4, H-3, IMP-1, MISC-4, MISC-56, MISC-57, MISC-58, MISC-71, R-6, R-11, WL-11, WL-25, WL-26, WL-29
Concerned Families for ATV Safety	SA-3
Extreme Machines	R-7

**Chapter 5: Response to Comments**

<b>Organization Names</b>	<b>DEIS Response Numbers</b>
Families for Outdoor Recreation	C-6, E-5, E-6, H-3, IMP-1, IMP-3, MISC-5, MISC-10, MISC-17, MISC-18, MISC-19, MISC-23, MISC-25, MISC-32, MISC-49, MISC-55, MISC-65, N-1, R-2, R-4, R-5, R-6, R-7, R-10, R-11, R-13, R-14, R-15, SA-4, SOU-1, SOU-2, WL-12, WL-13
Great Falls Trail Bike Riders Association	E-7, MISC-24, MISC-37, MISC-49, R-4, R-7, R-11, R-14, SOU-1, WQ-3
Magic City 4Wheeler Inc	C-6, MISC-10, MISC-49, MISC-62, R-4, R-7, R-13, R-14, SOU-1
Montana River Action	V-12
Montana Snowmobile Association	E-5, R-5, R-6, R-7, R-11
Montana Wilderness Association	MGMT-1, MGMT-15, MGMT-16, MGMT-18, MISC-3, MISC-11, MISC-15, MISC-22, MISC-35, MISC-73, R-6, R-11, SOU-1, V-11, WL-16, WL-19, WL-32, WL-34, WL-35, WL-36, WQ-15
Montana Wilderness Association, Eastern Wildlands Chapter	IMP-1, IMP-4, MISC-3, MISC-31, MISC-35, MISC-43, MISC-72, R-2, WL-19
SDSM&T Hardrocker Racing – Mini Baja Division	R-3
The Cloud Foundation	IMP-1, IMP-4
The Pryors Coalition	C-4, MGMT-1, MISC-3, MISC-31, MISC-32, MISC-33, MISC-35, MISC-36, MISC-39, MISC-40, MISC-42, MISC-43, MISC-53, MTCE-1, R-4, R-6, S-1, SOU-1, V-20, WL-8, WL-9
Treasure State ATV Association	E-3, MISC-49, R-4, R-7, R-11, SOU-1
Wildlands CPR	C-3, C-4, C-5, C-7, C-8, F-1, F-2, F-3, F-4, F-5, F-6, F-7, H-5, IMP-1, MGMT-14, MGMT-19, MISC-3, MISC-8, MISC-11, MISC-20, MISC-21, MISC-22, MISC-29, MISC-35, MISC-40, MISC-43, MISC-44, MISC-45, MISC-64, MISC-68, MTCE-1, MTCE-4, MTCE-5, N-3, R-6, R-11, S-1, S-2, S-5, SA-2, SA-3, V-10, V-18, V-19, V-21, V-22, WL-15, WL-33, WL-39, WQ-1, WQ-4, WQ-5, WQ-6, WQ-7, WQ-8, WQ-9, WQ-10, WQ-11, WQ-12
Wyoming Wilderness Association	MGMT-1, R-6, R-12, R-16, SOU-1, WL-22
Yellowstone Valley Audubon Society - Lubbers	IMP-1, MISC-15, MISC-31, MISC-32, MISC-33, MISC-35, MTCE-1, N-1, S-1, S-7, SOU-1, V-5, WL-18, WL-28, WL-31, WL-38
Yellowstone Valley Audubon Society - Ostovar	IMP-1, MISC-15, MTCE-1, S-1, WL-4, WL-5, WL-6, WL-7

<b>Individual Names</b>	<b>DEIS Response Numbers</b>
Alderson, George & Frances	MGMT-11, R-6, WL-9
Alexander, Jenny	R-2
Alexander, Josh/Chip/Kathy/Daniel/ Heather	R-2
Althoff, Allen A.	MTCE-1
Anderson, Dale	IMP-1, MISC-37
Ankrum, Dan	R-4
Barnard, Grant	IMP-1, IMP-2, MISC-7, MISC-35, MTCE-1, MTCE-4, N-2, R-2, SA-3, V-2, WL-8, WL-10
Beck, Barbara	IMP-2, MISC-15
Bennett, Donna C.	N-2
Blalack, Russell E.	N-2
Blanksma, Loren	F-1, H-3, MISC-17, MISC-24, R-6, R-7, R-13, SOU-1, WL-1, WL-6, WL-20, WL-27
Blaquiere, Bill	E-5, R-7

Individual Names	DEIS Response Numbers
Blevins, Auzie & Marilyn	C-4, IMP-1, MGMT-1, MISC-12, MISC-31, MISC-32, MISC-36, MISC-43, MISC-70, MTCE-1, S-6, SOU-1, V-5, WL-9, WL-21
Bragg, Stacy	E-4, E-5, E-10, H-3, IMP-1, IMP-3, MGMT-13, MISC-2, MISC-17, MISC-23, MISC-60, MISC-61, R-2, R-11, V-23, WL-12, WL-34
Breeding, Noreen & Roger	H-2, IMP-1
Bressler, Suzanne J.	IMP-1
Brewster, Larry	R-13
Bruner, Darla J.	MGMT-1
Caplette, Virginia	N-2
Cardwell, Robert D.	R-7, WL-1
Carter, Sally	IMP-1
Cassel, Jay	C-1, R-11
Cellan, Dave	R-13
Christianson, David	R-6
Cooper, Lee	SOU-1
Cossitt, Anne	MGMT-1
Court, Jim	IMP-1
Darnielle-Morse, Teresa L.	IMP-1
Deenes, Scott	R-7
Demoroy, Gordon	R-4
Denny, Tina M.	S-1,
Devries, Johanna	N-2
Dillon, Matthew	IMP-1, MISC-59, SOU-1
Dominick, Bettye	IMP-1
Donnes, Charlie	IMP-1, MISC-17, R-6
Donohoe Arthun, Kayce	WL-2
Donohoe, Cathy & Paul	WL-2
Eldringhoff, Jim	IMP-1, MISC-17
Erhard, Rory	R-13
Erhart, Susan	R-7, WL-2
Exley, Jack L. MD	IMP-1, SA-3, SOU-1
Ferris, Mark E. PhD	WL-9
Fitch, Jeffrey T. & Heidi J.	IMP-1
Forrester, Cheryl	R-4
Garritson, Robert/Barbara/Robert Jerek	C-6, R-4, SOU-1
Gies, Stephen	IMP-1
Gleason, Glen	MGMT-9
Gliko, Elaine	IMP-1, IMP-2, N-2
Grewell, John/Betty	R-2
Hairing, Robert D.	WL-19
Hansen, Allen	R-4
Hanson, Jerry	R-2
Harakal, Marc	WL-6
Hardtke, Allan	MISC-49, R-4, R-7, SOU-1
Hayes, Katie & Peter	R-7, WL-2
Herbst, Steve	MISC-10, MISC-34, MISC-49, R-7, SOU-1
Herbst, Vonnice	R-13, SOU-1
Hert, Dale	R-4, SOU-1
Hert, Darlene	R-4
Hogan, Terri	SOU-1
Hurdle, Joan	WL-21
Hutzenbiler, Lonnie	R-2

**Chapter 5: Response to Comments**

<b>Individual Names</b>	<b>DEIS Response Numbers</b>
Jaquith, Phillip H.	IMP-1, MGMT-20, MISC-36, MISC-49, MTCE-1, SOU-1, SOU-3
Johnnansen, Danette	R-13, SOU-1
Johnnansen, Duane	R-8, SOU-1
Johnson, Bill	R-7
Jones, Dana	IMP-1
Jones, Scott	R-7
Kania, Aaron	H-2
Kary, Douglas	IMP-1, MISC-5, MISC-10, MISC-34, MISC-49, R-7, R-11, SOU-1
Kelker, Tiffany	C-2
Kemmel, Kevin	R-6, R-7
Krum, Calvin	IMP-1
Lamb, Mike	R-7, WL-2
Larson, Sloane	SA-1
Lehnherr, David	MISC-35, SOU-2
Lesica, Peter	MISC-35, MTCE-4, V-13
Lorenz, Ed	E-9, R-7
Lucas, Nancy	R-2
Lund, Judi K.	R-16
Martin, Jesse	IMP-1, MISC-49, R-2, V-1
Martin, Marise J.	IMP-1, R-13
Marty, Leslie & Bruce	V-5, V-9, V-14
Mattson, Steve	R-13
McCracken, Clayton	IMP-1, MGMT-10, MGMT-21, MISC-34, MISC-35, MISC-36, MISC-49, R-4, S-4, SA-2, SA-3, SOU-1, V-5, V-8, V-16, WQ-15
Miller, Anthony	E-7, H-3, IMP-1, MISC-10, MISC-18, SA-1, SOU-1
Miller, Brit	IMP-1
Miller, Neil O. & Jennifer S.	IMP-1, R-12, R-13, WL-9
Mowat, Bernice W.	N-2
Munsell, Mary	IMP-1
Murray, Laurie	IMP-1
Newell, Susan	H-2, IMP-4, MGMT-12, MISC-31, MISC-35, MISC-43, MISC-50, MISC-63, R-6, R-10, R-12, S-1, SA-3, SOU-1, V-3, V-25
Nusbaum, Ron	IMP-3, MGMT-2, MISC-7, MISC-35, MISC-43, MTCE-1, R-2, SA-3, SOU-1, V-25, V-26, WL-37
O'Brien, Mary	N-2
Osmun, Cathie	IMP-1, N-2, SA-3, SOU-1
Parker, Peg	R-4, R-6, R-7, SOU-1
Parker, Tom	E-8, MISC-17, MISC-30, MISC-37, MTCE-3, R-4, R-5, R-6, R-7, R-10, R-11, R-14, SOU-1
Parkin, Valerie	IMP-1
Penfold, Mike	MISC-3, V-5, WL-22
Peterson, Michael	IMP-1
Quetchenbach, Bernard	MISC-31
Ratcliff, Bryan	R-7, WL-1
Rex, Polly	WL-2
Robertson, Philip A. PhD	IMP-2, MISC-35
Roe, Teddy	IMP-1, MISC-31, MISC-43
Roney, W.P.	MISC-31, WL-30
Rose, Bernard	E-11, IMP-1, MISC-35, SOU-1
Rose, Dave	N-2
Schmidt, Scott	R-7

Individual Names	DEIS Response Numbers
Schwarzrock, Wes	R-7
Schwend, Ty	SOU-1
Silverman, Makendra	V-15, WL-23
Simmons, John P.	N-2, R-2, R-16
Smeets, Erna	N-2
Smith, Carellen	R-2
Smith, Christopher Scott	MISC-26
Smith, Dave	R-2
Sneed, Paul	R-6, V-5
Steinmuller, Patti	R-12, S-4
Stephens, Don	R-4, R-7, SOU-1
Stevens, Emery	MGMT-17, R-4, R-7, SOU-1
Stevens, Nanette	MGMT-17, R-4, R-7, SOU-1
Struck, Wilf	MISC-27, MISC-41, MTCE-1, R-7
Strum, Ernest C.	IMP-1, MISC-43, R-2
Tabaczka, Ron	R-12
Taylor, Mark	MISC-1, MISC-36, MISC-46, V-4, V-7, V-17
Tucker, Chris	WL-12
Vanderhorst, Ruth	MTCE-1
Walton, Dick	MISC-31, MISC-44, R-6, SA-3, V-5
Webster, Margaret	C-4, IMP-1, IMP-4, MISC-3, MISC-12, MISC-24, MISC-35, MISC-49, MTCE-1, R-6, R-11, SA-3, SOU-1, V-6, WL-19, WL-22, WL-24
White, James W.	R-6
Wilcox-Weston, Wanda	R-2
Wood, Brad	WL-8
Wuerthner, George	IMP-1, MGMT-3

**INDIVIDUAL and ORGANIZATION NAMES  
SUBMITTING COMMENT LETTERS ON DEIS  
With No Substantive Comments noted during Content Analysis**

Alberi, Susan	Clayton, John	Haidle, Thomas L.
Alby, Dan	Coffey, Jerome	Halter, Nancy
Anderberg, Jerry	Cooper, Diane	Hammerquist, Randy
Anderberg, Ruth	Cooper, Nathan	Hancock, Beverly K.
Appel, Zach	Cox, Kimberly	Hanson, Deborah
Archer, Barbara	Cozzens, Sue	Harding, Rita
Armijo(Linderman), Knoxann M.	Crawley, Cara	Harrington, Brian
Auren, Nancy	Debethizy, Cindy Zullo	Harris, Jay
Ausen, Steven	Dell, Thomas	Haverlandt, Kelly
Babb, Andy	Dobson, Edward M.	Heinz, Dan
Bahin, Louis J.	Dodge, Dave	Heinze, Donald H.
Bailey, Delona	Dominick, Marshall	Helena Outdoor Club
Bailey, James	Dopp, Bethany	Helus, Theresa
Baken, Jim	Downing, Michael	Henckel, Mark
Bartel, David A.	Dulin, Melissa	Hickok, Beth
Bayley, Annette F.	Dunphy, M.C.	High, Ken
Bayley, Stan	Dykema, Henry	Hilden, Alan D.
Beam, Daryl & Carol	Ettleman, Mrs.	Hill, Mariah
Beardslee, Greg	Faber, Cary	Hilliard, Jesse, Colt & Carson
Bergan, Barry	Farr, Chuck	Hilliard, Lynn
Berner, Jerry	Fasching, Michael	Hills, Susan
Berry Nies, Barbara	Feister, Brooke H.	Hodson, Brock
Bibler, Carol	Fenex, Ron J.	Honkomp, Dennis
Bischke, Scott	Ferrell, Doug	Hooper, James V.
Bischoff, Patricia	Fiddler, Jim	Horan, Janis
Blackmore, Tana	Fierer, Lisa	Horgan, Chris
Boehmke, John	Fitzpatrick, Mary	House, Helen
Bollinger, Shirley	Forehand, Dick	Hughes, Bob
Boone, Jean	Franczyk, Greg	Hughes, Joan
Borberg, Robert	Frazier, Georgia J.	Hunnes, Cristi
Borges, Miles	Freeman, Glenn	Hustad, Marlon
Braun, Stephen	Garcia Costas, Amaya M.	Ingersoll, Randy
Brewer, Linda	Garvey, Lydia	Isreal, Nellie
Bronson, Dave & Ann	Germic, Stephen Dr.	Jahn, Greg
Brown, Lee	Gibson, Katie	Jamison, Cate
Brown, Scott	Glase, Terry R.	Janssen, Sue
Bruner, Sam	Goldin, Alan	Johnson, Robert P
Bruner, Sherry	Good, Mark	Johnston, Bob
Bruton, Pamela J.	Good, Peg & Jim	Jones, J.L.
Bryan, D	Gopp, Bub	Jones, John P.
Burgard, Don J.	Gray, Diana L. MD	Jones, Thomas
Burke, Kathie	Gray, Sandra Lynn	Kehler, Bill
Bushell, Frank	Gray, Stephen G.	Keith, Lynn D. & William
Byrd, Mary Ann	Gregory, Judith	Kellert, Jacob
Byrne, Kerrie	Grimland, David	Kennick, John A.
Caldwell, Elizabeth N.	Grimm, Karen L.	Kilmer, Tom
Carlstrom, Mark	Grunenfelder, Mike	Kindsfather, Gerald
Carson, Millie	Guay, Greg	Knight, James
Casteel, Brian	Gulbrandson, Dave	Kraus, Jim
Chamberlain, Cara	Gulick, Ed	Kuck, Harvey
Chester, Mary Alice	Gulick, Walter	Kuntz, Gail
Christianson, Dave & Pam	Gustafson, Billie	Kuras, Cathleen
City of Red Lodge Parks Board	Gustafson, Lee	Kurhl, Bryant
Claypool, Duane	Gustafson, Monty C. & Gayle L.	Landis, Connie M

Larmayeux, Jack D.  
 Larrabee, Consuelo  
 Larsen, Bruce W.  
 Larson, Joseph  
 Lay, Scott  
 Lebar, Jean  
 Lebar, Jim  
 Lehman, Tim  
 Lemire, Linda  
 Lillegraven, Jason A.  
 Lischer, Henry J. Jr.  
 Little, Deb  
 Littlepage, Dean  
 Lohrenz, Tim  
 Loveless, Donald S.  
 Lowe, Rob  
 Lyman, Marian  
 Mack, Rande  
 Madson, Pete  
 Makara, Mike  
 Mangus, John  
 Manternach, Duane  
 Marshall, Lisa  
 Mazyck, Jerome  
 McCandless, Susanne  
 McCormick, Susan  
 McDowell, Letha  
 McKeown, Joan R.  
 McLaughlin, William C.  
 McMurtry, Valerie  
 McNally, Mary  
 Miller, John W.  
 Minkoff, Randy  
 Montana Multiple Use Association  
 More, Bob  
 Morris  
 Morris, Eileen  
 Morrison, James  
 MT Center on Disabilities &  
 ACRES  
 Myers, David  
 Native Waters & Indigenous  
 People  
 Nettle, Robert  
 Newton, Debbie  
 Nies, Allan  
 Norton, Rebecca H.  
 Novak, Sharon  
 Nyquist, Thomas E. Dr.  
 O'Banion, Bruce A.  
 O'Banion, Ralph  
 O'Brien, Dan P.  
 O'Loughlin, Jennifer  
 Ohman, Gary

Olds, Lucille  
 Omen, David  
 Oset, James E.  
 Owen, Frances C.  
 Palmer, Carrie  
 Paulsen, Janice  
 Paulsen, Jim  
 Petersen, Ryan  
 Peterson, Dale  
 Phelps, James  
 Pitblado, Nancy  
 Poling, Teresa  
 Powers, Debo  
 Preyer, Carol  
 Priest, Paula  
 Ralph, Kathleen  
 Rausch, Loren  
 Ream, Tarn  
 Redding, Kim  
 Restad, Bruce  
 Reynolds, Alison  
 Reynolds, Peter  
 Rickels, Robert E.  
 Ringer, Mary  
 Riordan, Don  
 Robertson, Mark  
 Rockwell, David  
 Rocky Mountain Ski-Doo  
 Royer, Johny H.  
 Sample, Anna  
 Samuelson, Kurt  
 Sanders, Jeffrey M.  
 Sather, Tom & Pat  
 Savinsky, Mark  
 Scalia, Joseph III  
 Scanlin, Betsy  
 Schimpff, Wayne  
 Schrag, Loren  
 Schwarzrock, Wes  
 Seder, David  
 Seekins, Larry  
 Sheller, Ruth H.  
 Simmons, Lauren L.  
 Smith, Jewell  
 Smith, Jo  
 Smith, Maureen  
 Smith, Patrick  
 Smoot, Bill & Suzanne  
 Smoot, C. William MD  
 Solheim, Carl  
 Sorg, Keith  
 Southworth, James O.  
 Sparhawk, Erica  
 Sparhawk, Ryan

Spencer, Al  
 Splittberger, Gary  
 Stange, Douglas  
 Stearns, Gerry  
 Stewart, Esther  
 Stockton, Ken  
 Strong, David  
 Swanson, Nancy  
 Sweeney, Donna  
 Swierkosz, Joe & Becky  
 Syring, John PhD  
 Tafoya, Estelle  
 Tafoya, Renee  
 Tatz, Janet  
 Taylor, Richard  
 Tetrault, Marlene  
 Timmerman, Jane  
 Tingle, Walter W.  
 Tomaszewski, Matt MD  
 Tomaszewski, Nina MD  
 Torrence, David B. & Ruth S.  
 Tully, Tom  
 Tussing, Darlene  
 Unruh, Cal  
 Valdez, Miguel  
 Vorhes, Stacey M  
 Waldron, Bob  
 Walker, Carol  
 Walters, Jeannette  
 Walton, Kendall  
 Waples, Virginia  
 Webb, Barbara Dr.  
 Webb, S. David Dr.  
 Weber, Gordon G.  
 Weeden, Catherine  
 Weeks, Tom  
 Wegner, Gary & Clore  
 Wheeling, Terry  
 Whittinghill, Joe  
 Wiggins, Nancy  
 Willett, Frank  
 Williams, Dennis  
 Williams, Kathy  
 Williams, Linda or Ray  
 Williams, Pauline  
 Williams, Rebecca H.  
 Williams, Steve  
 Williamson, Milt  
 Wilson, Bryan  
 Wilson, Mamie  
 Winslow, Susan R.  
 Wood, Wilbur  
 Woolard, Nancy

## 5.2 RESPONSE TO COMMENTS

What follows are individual or summarized comments for each of the subject areas identified through the content analysis process, as well as the response to those comments. If numerous similar comments were received on a topic, they were summarized into a single comment. The response to comments may be a direct response to the comment, or will note whether the comment was addressed by adding analysis or discussion to the FEIS.

### CULTURAL RESOURCES

<b>Subject: Cultural Resources</b>		<b>Response #: C-1, General</b>
<b>Letter-Comment #:</b> 47-2	You admit that "...that the significance of the Pryor Mountain Unit to the Crow could not be overemphasized," (3-54), and that "Crow Cultural Commission Chairman George Reed states that motorized vehicles are threatening the sacredness, solitude and pollution free atmosphere of the Pryor, Arrow Shot Into Rock, Mountain, the last sacred place where individuals go for guidance and prayer without disturbance and interference" (3-61), and that, in general, motorized use threatens cultural resources (3-59), yet you do not recommend any significant reduction in OHV use. Instead, (Table 3-8) you recommend an INCREASE in "Motorized Recreation Opportunity."	
<b>Response:</b> Addition of Alternative B Modified addresses and analyzes the effects of increased motorized recreational opportunities on traditional cultural properties and cultural landscapes. It also provides additional protection measures related to increased visitor access associated with motorized access, by proposing to not designate additional key routes.		

<b>Subject: Cultural Resources</b>		<b>Response #: C-2, Traditional Cultural Properties</b>
<b>Letter-Comment #:</b> 116-2	Did you even ask for input of the Native American's that leave in Pryor how they feel about this?	
<b>Response:</b> Under the Traditional Cultural Properties section in the FEIS, consultation with the Crow Tribe and others is described in the methodology section.		

<b>Subject: Cultural Resources</b>		<b>Response #: C-3, National Historic Preservation Act</b>
<b>Letter-Comment #:</b> 461-22	The consultation requirements under the NHPA have not been met and should be fulfilled before the final EIS and decision are issued. At a minimum, any route that has not been properly inventoried should not be placed upon the MVUM until such inventory occurs and the effects of the route and increased access to an area are determined and minimized.	
461-24	Cultural resources do not receive sufficient protection in any of the proposed alternatives and the proposed alternatives do not comply with the requirements of the National Historic Preservation Act, 16 USCS § 470f or the direction in EO 11644, as amended by EO 11989, to "minimize impacts" to cultural resources. These deficiencies should be remedied before the final EIS and decision notice is issued.	
461-27	The draft EIS frequently states that Alternative B "may reduce" or "may threaten" certain cultural resources. These uncertainties should be more fully disclosed and alternatives suggested for reducing the uncertainty that appears to dominate the future protection of these irreplaceable resources. If additional public access in the Beartooth Christen Ranch road "may threaten" the preservation of these resources, then additional public access should not be allowed until it is certain what the threat is and that the threat has been eliminated. If it is absolutely necessary that this road remain open to motorized access, then an Adaptive Management Plan should be put into place, as described above.	
<b>Response:</b> Washington Office protocol to comply with the National Historic Preservation Act was followed as described in the Cultural Resource section of the FEIS. Additional inventory and review of Alternative B proposed actions was conducted during the fall of 2007 and more detailed analysis of effects to cultural resources was added to each alternative. Please see sections in Chapter 3 Cultural Resources under Regulatory Framework and methodology.		

<b>Subject:</b> Cultural Resources	<b>Response #:</b> C-3, National Historic Preservation Act
Sites that may be at risk due to a variety of circumstances will be monitored as per the Site Identification Strategy (SIS) as part of the Programmatic Agreement. Cultural resource site monitoring will continue and if effects to cultural resources are observed, regardless of the source, plans to remove, reduce or mitigate the effects will be pursued.	

<b>Subject:</b> Cultural Resources	<b>Response #:</b> C-4, Route #2088 (Shriver Peak) & Route #2095A
<b>Letter-Comment #:</b> 124-12	The proposal to close the Dry Head Loop is good; this will help protect cultural resources in that area. Similarly, route 2095A should be designated as a non-motorized trail.
129-18	The Pryors Coalition also strongly recommends against opening #2088 to motorized use. This area could, like Punchbowl, be good secure habitat for deer and elk. The Pryors Coalition 9 Road #2088 also goes through some culturally sensitive areas. In the Cultural Resources part of the DEIS the Forest expresses concern about both Alternatives B and C.
129-19	This discussion is partly in error since route #2095A is not open to motorized travel in Alternative C. Nevertheless this cultural concern suggests that the entire route #2088 should be closed to motorized use. This situation is similar to the situation at Dryhead Overlook, so the same solution might be appropriate. Close #2088 and construct a few short walking trails. Trail construction would be so easy here that it would be almost unnecessary.
307-24	The Forest Service has said that the Travel planning process does not allow them to designate non-motorized areas as suggested by the Pryors Coalition proposal. However, there is nothing preventing the Forest Service from not designating roads through the middle of these suggested areas so that they may be designated later in the Forest Planning process. For this reason, Road 2088 past Crater Ice Cave, Road 2093 (Cave Ridge Road), Road 20972 on Roberts Bench, and Road 2144 in the Punchbowl area should be closed. Closing these roads would also provide much needed secure wildlife habitat and in the case of Road 2088 protect the existing cultural resources.
307-26	The Forest Service should be commended in Alternative B for closing (or not authorizing) Road 2308B to Dry Head Vista to protect the cultural resources. The same potential for abuse also exists on Big Pryor Mountain in the Crater Ice Cave area, and the Forest Service should consider a similar closure.
461-29	Motorized access to the Shriver Peak area should not be allowed, based upon the statement that “Any increase in access to this area threatens the pristine site setting and introduces the likelihood of vandalism, much as is occurring to the Dryhead Overlook TCP features.” (DEIS p.3-65). There is no real discussion of how these resources will be benefited or protected from degradation by the proposed alternatives. There is insufficient discussion of mitigation and monitoring, and no plan of action if resources are continued to be damaged. Even though the DEIS acknowledges that the importance of the Pryor Mountain Unit to the Crow tribe cannot “be overemphasized” (DEIS p. 3-54) there is little indication that the effects of motorized access to the resources of the Pryors were fully assessed.
461-32	It is also unclear why a loop that is projected to be quite popular to motorized use is being designated in this sensitive area. It is unrealistic to believe that damage will not occur in one area that is already occurring at many others.
<b>Summary of Comments:</b> Concern the designation of motorized use on Route 2088 and 2095A will not protect cultural resources.	
<b>Response:</b> The Forest Service considered additional options for routes 2088 and 2095A. Alternative B Modified does not designate a segment of route #2088, which offers additional protection for cultural resources and reduces effects to the cultural landscape. Refer to the Cultural Resource section in the FEIS, Alternative B Modified.	

<b>Subject:</b> Cultural Resources	<b>Response #:</b> C-5, Monitoring
<b>Letter-Comment #:</b> 461-26	This general reference cannot be described as sufficient disclosure of the monitoring or mitigation that will occur to protect these resources. What methods will be used to minimize impacts? How frequent will monitoring rotations be? What actions will be taken when damage to resources occurs? An adaptive management plan should be put in place with specific thresholds for what constitutes damage and when those thresholds are met, the area is automatically closed until the damage and the source of the damage is eliminated, as is required by EO 11644, as amended by EO 11989.

**Chapter 5: Response to Comments**

<b>Subject:</b> Cultural Resources	<b>Response #: C-5, Monitoring</b>
<p><b>Response:</b> The Custer National Forest site monitoring program documents effects to cultural resources due to a variety of causes, including natural and human factors, based upon baseline conditions and professional opinion. When effects to cultural resources are observed, the Forest Archaeologist, in cooperation with the appropriate resource specialists and in consultation with the Montana State Historical Preservation Officer (SHPO), designs plans to remove, reduce, or mitigate the effects. For travel management, a specific Site Identification Strategy (SIS) as part of the Programmatic Agreement will be developed with the SHPO in a concerted effort to monitor site condition and also identify any new sites that could be affected by this decision. This strategy is described in the Cultural Resource section in the FEIS.</p>	

<b>Subject:</b> Cultural Resources	<b>Response #: C-6, Motorized vs. Non-Motorized Effects</b>
<b>Letter-Comment #:</b> 412-4	Trails #2016, 2085P, 2085R, 2091D, 2091H, 2308B, 2849F are being closed for Cultural Resource concerns. What are the specific concerns? What studies have been carried out that links motorized access with vandalism of cultural resources? What can be done to limit the access to the culturally sensitive areas that doesn't include closing the trails? Will there be and has there been increased patrols or enforcement in these areas to protect these cultural resources?
419-4	In alternative B I find that so many of the closures are "due to cultural consideration" but does not address the issue of the horse or foot users causing problems.
421-25	Cultural issues, closing certain trails would make it difficult for Native Americans to access their historical sites. Instead of closing the trail completely, can we close the trail 1/2 of a mile before the historical sites to everyone including hikers and horse backers? Without knowing for certain who is causing the problem, it should be closed to everyone not just one specific group.
421-26	You stated that a road or trail needed to be closed because of OHV was getting into the natives sites and destroying the sites. We believe this is a biased statement! There is no reason why you should think all the damage is from OHV users! So trail #2095 and 20952 should remain open to with in a 1/2 mile of the site and closed to all people from entering the area or until the Forest Service can come up with a plan to minimize the impact on the sites and or remove the cultural objects remaining at the site and left with the Native Americans to care for them.
<p><b>Response:</b> The Forest Service does not claim that all effects to cultural resources are due to OHV users. However, motorized access can increase the number of visitors to an area, which can increase the potential for impacts. Effects to cultural resources due to OHV use and/or access have been documented at specific locations and it is at those locations that the Forest is attempting to remove, reduce, or mitigate the effects.</p> <p>Alternative B Modified addresses specific concerns related to the protection and preservation of cultural resources. The Cultural Resource section in the FEIS describes the various studies concerning motorized vehicle effects to cultural resources; and what has been successful in reducing these effects. The site monitoring protocol for travel management may identify the need for increased law enforcement. Please refer to Chapter 3 Cultural Resources for more detailed discussions of impacts, studies of OHV effects, and mitigation measures.</p>	

<b>Subject:</b> Cultural Resources	<b>Response #: C-7, Dispersed Camping</b>
<b>Letter-Comment #:</b> 461-30	The “no action” alternative environmental consequences admits that “[t]he allowable motorized travel up to 300 feet off existing roads, in order to access dispersed camping areas, continues to result in damage to sites.” (DEIS p. 3-51). However, the environmental consequences section for Alternative B, which allows a dispersed camping buffer of 600 feet, does not directly address or admit to the damage that is already caused by dispersed camping. Damage to cultural sites is currently occurring due to unregulated dispersed camping and the alternative adopted should greatly limit the access to dispersed camping by designating sites “sparingly” as directed in the 2005 Travel Management Rule.
461-31	Why is dispersed camping along the West Fork of Rock Creek, Main Fork of Rock Creek, and the West Fork of the Stillwater allowed if it will “continue to affect cairn features concentrated along these routes” (DEIS p. 3-64)? Further damage should be prevented to these features by allowing dispersed camping only at designated camping facilities along the West Fork of Rock Creek and the West Fork of the Stillwater that have been fully reviewed for their affects on cultural resources. Sites should only be designated on the Main Fork of Rock Creek if they will not “continue to affect cairn features.”
<p><b>Response:</b> Sentence should read "Dispersed vehicle camping activities...may affect cairn features...". A sample of 30</p>	

<b>Subject:</b> Cultural Resources	<b>Response #:</b> C-7, Dispersed Camping
dispersed camping areas along the Main Fork of Rock creek found four site locations of which one site was currently being affected. All four locations will be closed to dispersed camping. Inventory along the West Fork of Rock Creek and the West Fork of the Stillwater revealed a number of sites, but none are currently being affected by dispersed camping. Monitoring of these sites will continue and, should detrimental effects are found, measures to remove, reduce or mitigate these effects will be implemented in consultation with the SHPO as described in the site identification strategy (SIS) for travel management.	

<b>Subject:</b> Cultural Resources	<b>Response #:</b> C-8, State Historic Preservation Officer
<b>Letter-Comment #:</b> 461-21	In fact, in the Appendix that lists consulting entities, the SHPO is conspicuously absent.
<b>Response:</b> The Montana State Historic Preservation Officer has been added as a document reviewer/consulting agency.	

## ECONOMICS

<b>Subject:</b> Economics	<b>Response #:</b> E-1, Spending Profiles - NVUM
<b>Letter-Comment #:</b> 67-14	Page 3-6: NVUM numbers. Survey period was 10/01 thru 9/02. Outdated statistics that do not reflect recent growth in OHV usage. Table 3-3: Activity Participation. How is it possible that snowmobile use has zero participation? Table 3-4: Expenditures by Activity. These numbers are inaccurate, especially since fuel prices have skyrocketed since the survey was conducted. Table 3-6: Employment and Labor Income Effects. "Motorized activities were responsible for approx. 22 total jobs...OHV use on forest...5 total jobs... Snowmobile ... 0 jobs." There are 15 OHV dealers in Billings alone and these numbers are significantly under-estimated.
<b>Response:</b> It is true that the most recently available spending profiles do not reflect the very recent increases in the price of gasoline. The next round of spending profiles will reflect these higher prices. This will be especially important in the economic impact area surrounding the Beartooth District because the economic impact area includes several refineries. This means that the economy will not only retain the retail and wholesale margins but most of the production price as well. Even if all expenditures in the expenditure profiles were doubled, the economic effect on the economy of the impact area would still be very small (less than 1/2 of 1 percent). However, that is not to say that certain individuals and businesses would not be adversely affected by changes in OHV use.  The National Visitor Use Monitoring information displayed in Table 3-3 of the DEIS reflects the visitor survey work conducted on the Forest during fiscal year 2002. The survey dates and locations are selected at random based on areas of concentrated use, and involve obtaining information from visitors existing these sites. As with most surveys of this type, there are margins of error inherent within the project. This entire survey is available, including explanations about the margin of error, on the internet at: <a href="http://www.fs.fed.us/recreation/programs/nvum/">http://www.fs.fed.us/recreation/programs/nvum/</a> . A second round of NVUM surveys are being conducted in fiscal year 2008. As additional survey work is completed, the information gained from these surveys is expected to improve.	

<b>Subject:</b> Economics	<b>Response #:</b> E-2, Cumulative Effects
<b>Letter-Comment #:</b> 66-55	The negative social and economic impact experienced by motorized recreationists when motorized recreational opportunities do not exist in nearby public lands must be adequately evaluated and considered in the decision-making....We request the evaluation of the economic cost of fewer motorized recreation opportunities on motorized recreationists and the significant cumulative negative effect of all travel management decisions that contribute to these social and economic impacts on motorized recreationists.
66-67	The evaluation and resulting decision must adequately consider and address all of the social and economic impacts associated with the significant motorized access and motorized recreational closures.

**Chapter 5: Response to Comments**

<b>Subject: Economics</b>		<b>Response #: E-2, Cumulative Effects</b>
66-72	We request adequate evaluation of the economic and social impacts of this proposed action be considered in the analysis and decision-making. Additionally, we request that the cumulative negative impact resulting from inadequate evaluation of economic and social impacts in past actions are considered in the analysis and decision-making and that an adequate mitigation plan be included as part of this action to compensate for past cumulative negative impacts.	
67-15	Please analyze the cumulative effects of all of the associated actions listed in Table 2 of our comments.	
387-31	CBU requests that a programmatic EIS be completed by Region 1 on the cumulative economic and social impact that the closures proposed in all forest travel plans in Region 1 are having on small communities.	
<b>Summary of Comments:</b> Concern that the economic analysis was not thorough or cumulative effects were not analyzed.		
<b>Response:</b> The economic and social impacts of changes in motorized or non-motorized opportunities are difficult to assess. A thorough analysis of these impacts would require detailed information on changes in recreation use by activity. This information is difficult, if not impossible to calculate since it involves speculation about the ability or desire of user's to substitute recreation activities and given recreation location choices. It is acknowledged that cumulatively, the changes in recreation management on multiple units has the potential to shift some motorized use to different locations on public and private lands and that this may have impacts on site specific businesses. The law does not require firm-level analysis of these impacts, and as stated above, they are extremely difficult to project. The analysis in the Economics section of Chapter 3 indicates that the proposed changes represent a small fraction within the context of the local economy. This also suggests that the cumulative contribution of this project to other economic changes locally or regionally would be minor.		

<b>Subject: Economics</b>		<b>Response #: E-3, Data</b>
<b>Letter-Comment #:</b> 420-7	The economic impact of the Pryors vs. the Beartooths is like comparing apples to oranges. The direct labor income analysis shown on Table 3-6 does not appear to be realistic. As stated in the DEIS: "Because the decisions of Travel Management will have little direct and indirect effects on the economic area, there should be no cumulative effects." Would the same conclusion stand if those decisions were based on better data?	
<b>Response:</b> FEIS Table 3.6 is based on recreation visits and average spending obtained through peer-reviewed studies and methodologies. At this point the estimates are for the entire Custer Forest, not specific districts or mountain ranges. It would be inappropriate to model economic impacts for an area smaller than the group of counties selected to represent the economy surrounding the Custer National Forest, and if this were attempted the multipliers would be much smaller because fewer industries would be included. While all estimation procedures are subject to error, the statistically valid sampling regime used for this analysis allows estimation of this error. Even if the numbers used in the analysis were all doubled, all recreation would still account for only less than 1 percent of total economic activity in the impact area.		

<b>Subject: Economics</b>		<b>Response #: E-4, IMPLAN Modeling</b>
<b>Letter-Comment #:</b> 66-56	The economic impact of these closures will be devastating to small communities throughout the West. Models can be manipulated to predict any result. Economic models such as Implan should not be used when the input data is estimated and not factual or actual. Adequate effort must be exercised by the agencies to gather true on the ground data from businesses and individuals that use our public lands. We request that the economic analysis use actual local data to determine the true economic and social impact of proposed motorized access and closures on the public.	
387-5	The forest travel plans that are going on around Montana are using generated, estimated and false data to forward an agenda of locking people out of the forest. The economic impact of these closures will be significant and devastating to small communities throughout Montana. As required by the Presidents Council on Environmental Quality, some degree of effort must be used by the Forest Service to gather true on the ground data from businesses and individuals that use our public lands. This has not been done by your forest in preparing the travel plan document. Please use actual local data as to the economic and social impact of your proposed closures. The Custer National Forest is using the IMPLAN Pro input-output modeling system for the economic analysis. As stated in the Custer DEIS on page 3-9, the information that is put into this system is estimated and generated numbers. CBU finds that the input amounts do not reflect the true	

<b>Subject: Economics</b>		<b>Response #: E-4, IMPLAN Modeling</b>
	economic data that would be used if actual surveys of business were used. We see no effort being made by your forest to gather true information as required by the CEQ. The output from the IMPLAN modeling system can only be as good as the data that is plugged into the model. Arbitrary results from estimated and generated input data should not be used. True on the ground economic data must be collected and used.	
411-28	The IMPLAN modeling plan is estimated data and has not involved real on the ground economic input from the public and businesses in the area of the CNF. This is not accurate data and has excluded the public from fair and accurate input for public process and review.	
<p><b>Response:</b> Input output IMPLAN modeling is an accepted modeling tool in the field of economic and is used by the Forest Service to estimate the economic impacts of changes in management. The model relies on actual data of interactions between industries in the study area as recently as 2002. It is fortunate to have any visitor use information for this area, such as the 2002 National Visitor Use Monitoring information. Attempting to comprehensively survey all visitors would be logistically impossible and intrusive. On the ground field checking of motor sports stores in central Montana confirmed that the IMPLAN estimates are realistic. It is important to realize that these estimates are not intended to be perfect predictors of economic activity in the future, as they are restricted to evaluation of management changes with an assumption of a static economic background, which we know to be oversimplified.</p>		

<b>Subject: Economics</b>		<b>Response #: E-5, Expenditure Profile</b>
<b>Letter-Comment #:</b>		
214-5	Table 3-4, pages 3-8 is not complete it does not reflect all the uses on the forest from table 3-3.	
362-5	Limiting OHV travel in the area will also remove the economic impact these users have on the surrounding communities.	
411-25	Did Stynes and White take local on the ground spending profile surveys for their Spending Profiles for National Forest Recreation Visitors by Activity spending profile? Horseback riding does not share the same spending profiles as other non-motorized activities on the forest.	
411-26	The cost expenditures for a horseman of \$12 for a local person (50 miles within the forest boundary) And \$35 for a non-local person (beyond 50 miles from the forest boundary) are inaccurate.	
421-24	On page 3-8 in Table 3-4, we question how the Forest Service arrived at the expenditure costs per visit? Considering the cost of gas today, you can not even fill a snowmobile for \$28.00, did you figure in the cost of fuel to even arrive at the launch point for snowmobiling or what about the cost of food being carried with each person for example for lunch? If the cost is inadequate for snowmobiling, it carries that the other expenditures per visit are incorrect as well. We feel this table to be grossly inadequate and should not be used.	
<p><b>Summary of Comments:</b> Question the numbers used for cost expenditures.</p>		
<p><b>Response:</b> Even if all expenditures in the expenditure profiles were doubled, the effect on the economy of the impact area would still be very small (less than 1/2 of 1%). However, that is not to say that certain individuals and businesses would not be adversely affected by changes in OHV use.</p>		

<b>Subject: Economics</b>		<b>Response #: E-6, Trail Closure</b>
<b>Letter-Comment #:</b>		
421-22	How can you close down large percentages of trail systems and not have an impact on the economy of the local communities?	
<p><b>Response:</b> It appears this commenter is concerned with motorized opportunities based on other comments in their letter. The preferred alternative, Alternative B Modified, would not designate approximately 7% of system and non-system motorized routes compared to the No Action Alternative. In comparison, the preferred alternative, Alternative B Modified, would not designate approximately 22% of system and non-system motorized routes currently being used under the existing condition Alternative A. The contribution that motorized and non-motorized recreation activities on the District have on area economics is less than 1/2 of 1%. Consequently, the resulting effects from any of the action alternatives on the overall economic impact area would be extremely small as indicated in the Economics section of Chapter 3.</p>		

**Chapter 5: Response to Comments**

<b>Subject:</b> Economics		<b>Response #: E-7, Recreational Economic Contributions</b>
<b>Letter-Comment #:</b> 66-115	We request that the positive benefits of OHV recreation and tourism be considered as part of the evaluation and implemented for this action.	
74-8	Economic development in and around Custer National Forest would increase and greatly benefit our communities if we had a more developed motorized trail system with varying degrees of length and difficulty.	
438-4	Future 'possibilities' opportunities for the future of the towns and counties that surround these mountain ranges must be evaluated. Local merchants should be contacted or interviewed. The 'gray' wave of snowmobiles and ATV riders makes it imperative that object evaluation of the economic possibilities for the next 10+/- years be evaluated. While Montana people may not want development to the extent of the Paiute Trail in Utah, the possibility of a positive economic boost to the small communities in the surrounding the mountain areas should be 'objectively evaluated'.	
<p><b>Response:</b> The analysis evaluated the economic effects of a range of alternatives related travel management planning. The contribution that motorized and non-motorized recreation activities on the District have on area economics is less than ½ of 1%. Please see the Economics section of Chapter 3 for more information about the extent of recreation economic impacts.</p> <p>The Forest Service is not required to evaluate the motorized recreation economic development potential for communities. The inclusion of economic impacts is optional and done to help the decision maker become aware of estimated economic impacts associated with proposed management.</p>		

<b>Subject:</b> Economics		<b>Response #: E-8, Spending Profile – Local Economy</b>
<b>Letter-Comment #:</b> 155-4	"In general, economic effects vary by the amount of spending and by the type of activity, but it cannot be generalized that motorized or non motorized activities contribute more or less to the local economy on a per visit basis." I do not believe this statement accurately displays visit preparation costs and actual economic exchange to the local economies. If you consider what the motorized community spends in equipment costs compared to the non-motorized before going and actual visits to the forest it will be very difficult to say the motorized users do not contribute by far more in employment and labor income to the local economies.	
<p><b>Response:</b> Spending profiles do not include expenditures on durable goods (e.g., ATVs, horse trailers) or fixed costs (such as vet care, taxes property, etc.). These items can be used on multiple trips and cannot be solely attributable to a specific trip. Given this issue, the economic impact analysis uses only trip-related expenditures. This analysis approach yields technically correct estimates of the economic impacts that are attributable to recreation use in a local economy.</p>		

<b>Subject:</b> Economics		<b>Response #: E-9, Expenditure Profile – Economic Impact</b>
<b>Letter-Comment #:</b> 348-2	Limiting OHV travel in the area will also remove the economic impact these users have on the surrounding communities. A typical family riding motorcycle on trails in the Custer National Forest will spend approximately \$75.00 per day on gasoline and miscellaneous purchases. If they are traveling to the area for a weekend, their costs are increased.	
<p><b>Response:</b> The dollar figures shown are for visits (per person), not per trip which would be more. Also, even if all expenditures in the expenditure profiles were doubled, the economic effect on the economy of the impact area would still be very small (less than 1/2 of 1%). However, that is not to say that certain individuals and businesses would not be affected by changes in OHV use.</p>		

<b>Subject:</b> Economics		<b>Response #:</b> E-10, Spending Profiles - Fuel
<b>Letter-Comment #:</b> 411-27	A truck pulling a horse trailer uses 3 times more fuel for the same mileage traveled than a car that a hiker uses. Also the amount of money to purchase truck, trailer, horses, tack, feed, vet care, taxes, licenses, property to maintain stock all far excide (sic) the costs of all other non-motorized spending profiles. This shows that the spending profile is arbitrary and capricious.	
<b>Response:</b> The spending profiles for all activities reflect the amount of money spent on gasoline to participate in these activities. However, we did not have a spending profile for horse back riding that was applicable to this area so we used the same profile as for hiking and biking. This would tend to underestimate the amount of money spent on gas for horse back riding. However, even if all expenditures in the expenditure profiles were doubled, the economic effect on the economy of the impact area would still be very small (less than 1/2 of 1%). Additionally, spending profiles do not include expenditures on durable goods (e.g., ATVs, horse trailers) or fixed costs such as vet care, taxes property, etc.). These items can be used on multiple trips and cannot be solely attributable to a specific trip. Given this issue, the economic impact analysis uses only trip-related expenditures. This analysis approach yields technically correct estimates of the economic impacts that are attributable to recreation use in a local economy.		

<b>Subject:</b> Economics		<b>Response #:</b> E-11, Existence Value
<b>Letter-Comment #:</b> 445-5	As an economist I am impressed with the economic analysis that was done. But remember it shows that the off road industry has minimal impact on the local economy. But even more importantly the analysis ignores the value of the Beartooth District. That is what economists would call "existence value."	
<b>Response:</b> The economic analysis in this document does not attempt to quantify existence value (which is a term used to label a portion of the non-market values to many people). Contemporary methods to estimate these values are subject to large variability based on the instrument used, the antecedent awareness of the area by respondents, and the sample population surveyed. Generally speaking, willingness to pay estimates from contingent valuation approaches are used for relative comparisons, and not considered valid estimates in themselves. It is unclear from the comment whether the commenter is expressing concern that the existence values people hold for this area will be reduced or elevated by changing travel management as prescribed in the various alternatives. Many non-market values are addressed in the various resource sections of this document.		

<b>Subject:</b> Economics		<b>Response #:</b> E-12, Benefit Cost Analysis
<b>Letter-Comment #:</b> 66-73	We request that the analysis include an adequate benefit-cost analysis of non-motorized versus motorized trail use.	
<b>Response:</b> The economics section provides statistically valid estimates of spending by person for various activities. This information is useful in projecting how spending might change in response to management. A detailed benefit cost analysis of motorized versus non-motorized trail use would require making gross assumptions on how patterns of use might change given the alternatives. Therefore, any analysis based on such speculative assumptions would provide little or no useful information.		

## FISHERIES AND AQUATICS

<b>Subject:</b> Fisheries and Aquatics		<b>Response #:</b> F-1, Aquatic Habitat
<b>Letter-Comment #:</b> 396-13	Cutthroat trout habitat has also been cited as a documented concern. The vast majority of the stream crossing on trails in the CNF are rock-based and thus the result is very little sediment disturbance. The remaining stream crossings could easily be renovated by donated labor by placing a rock base in the streambed crossing, thus eliminating sediment disturbance.	
461-52	The DEIS did not adequately analyze the potential impacts to fisheries from stream crossings due to an improper assumption: "Because crossings generally comprise a very small percentage of the total stream or riparian corridor, effects are generally minimal for the stream as a whole... Thus, this component of the issue is addressed for roads or trails that follow stream courses, and for roads or trails with numerous crossings." (DEIS p. 3-109). The decision not to analyze single stream crossings is arbitrary and capricious, and in violation of the NEPA duty to fully analyze the impacts of the proposed action.	
<b>Response:</b> The potential for routes to impact water quality and fish habitat was evaluated in the Water Quality and		

**Chapter 5: Response to Comments**

<b>Subject:</b> Fisheries and Aquatics	<b>Response #:</b> F-1, Aquatic Habitat
<p>Fisheries sections of the FEIS based on the number of stream crossings, adjacency to streams, and landtype erosion hazard. More specifically, stream crossing in erosive landtypes were assigned a higher risk value than crossings less susceptible to erosion. For example, a highly erosive landtype with one or two stream crossing would receive a risk value similar to a route in a less erosive landtype with several more crossings.</p> <p>Mitigation measures can be implemented at site specific stream crossing to address fisheries concerns. However, the scope of this project is limited to the designation of system roads and trails. Proposed actions with site specific effects that potentially increase impacts to water quality and aquatic habitat would be mitigated in Alternative B Modified. Construction, reconstruction, maintenance and decommissioning proposals will require future and separate NEPA decisions. Appendix E includes opportunities to reduce impacts to water quality and aquatic habitat where there are: 1) site specific impacts from existing routes not associated with the proposed action, and 2) proposed actions with potential to improve conditions but do not eliminate impacts. Implementing mitigation measures to address opportunities will require future and separate NEPA decisions.</p>	

<b>Subject:</b> Fisheries and Aquatics	<b>Response #:</b> F-2, Route #241412
<b>Letter-Comment #:</b> 40-14	<p>Table 3-40 and table 3-41 (pages 3-112, 3-114) indicates that roads and trails are also impacting streams with populations of sensitive aquatic species, such as Yellowstone cutthroat trout, Western boreal toad, and Northern leopard frog, (Table 3-40, page 3-112). Table 3-42 shows routes with higher risks to fish and amphibians, however, only one of these routes appear to be designated for motorized travel (#241412). We recommend that this route be relocated away from stream and/or designated for non-motorized travel to reduce potential impacts to the stream and aquatic species.</p>
461-57	<p>The DEIS states that the preferred alternative “proposes to add 4.1 miles of moderate and high risk non-system routes. . .Of these routes, road 241412 has potential for impacting sensitive species and their habitats.” (DEIS p. 3-115). In order to comply with the mandate to minimize impacts under the E.O.s the Custer NF should remove this route from their preferred alternative.</p>
<p><b>Response:</b> Route #241412 is not designated for motorized use in the preferred Alternative B Modified in the FEIS.</p>	

<b>Subject:</b> Fisheries and Aquatics	<b>Response #:</b> F-3, Fish Passage
<b>Letter-Comment #:</b> 40-15	<p>Has the Custer NF and Beartooth Ranger District evaluated or conducted a survey of fish passage on culverts on the District? Since culverts often impede fish passage we recommend that such a survey be conducted to identify culverts causing passage problems. A priority list of culverts requiring modification or replacement should then be developed.</p>
461-53	<p>Another false assumption is that “Because fish passage has been addressed through the Forestwide culvert inventory and fish passage analysis, and because impacts can be mitigated through facility design or replacement, this component of the aquatic issue is dismissed from further detailed analysis in this report.” (p. 3-109). The DEIS should at least look at where the mitigation needs to occur and how the change in the transportation system will impact those needs. Merely stating that they will be mitigated and then not explaining how or detailing the potential needed changes due to increase in motorized use at these stream crossings is arbitrary and capricious.</p>
<p><b>Response:</b> The Custer National Forest has evaluated fish passage at culverts in the analysis area as part of a previous study. This inventory was documented in the DEIS and FEIS (Fisheries, Affected Environment, <b>Habitat Fragmentation</b>). The results indicated that very few culverts were blocking adult fish passage, and few of these appeared to be causing any significant harm to fisheries. Fish passage needs have been prioritized, and structures replaced annually to provide aquatic organism passage. The scope of the travel plan is limited to the designation of roads and trails. Construction, reconstruction, maintenance and decommissioning proposals will require future and separate NEPA decisions.</p> <p>Appendix E includes opportunities to reduce impacts to water quality and aquatic habitat where there are: 1) site specific impacts from existing routes not associated with the proposed action, and 2) proposed actions with potential to improve conditions but do not eliminate impacts. Implementing mitigation measures to address opportunities will require future and separate NEPA decisions.</p>	

<b>Subject:</b> Fisheries and Aquatics		<b>Response #:</b> F-4, Mode of Travel
<b>Letter-Comment #:</b> 461-51	We assert that the “mode of travel” is important when determining the amount of sediment production, in addition to the “facility” (road or trail).The DEIS does recognize the need to evaluate different uses: “...some uses have higher potential to disturb soils and increase erosion potential on both roads and trails, and therefore segregation of uses is maintained throughout the report.” (DEIS p. 3-106). In order to adequately analyze the erosion potential for different uses, the roads and trails need to be segregated as well since each trail class and road maintenance level have different erosion potentials and therefore different mitigation needs.	
<p><b>Response:</b> Potential effects of individual routes (high and moderate risk) are disclosed in indirect effects tables in the FEIS (Fisheries and Aquatics Section, Environmental Consequences). Discussion of effects on aquatic resources in relation to mode of travel is also disclosed in the FEIS (Fisheries and Aquatics Section, Affected Environment).</p> <p>The potential for routes to impact water quality and fish habitat was evaluated in the Water Quality and Fisheries sections of the FEIS based on the number of stream crossings, adjacency to streams, and landtype erosion hazard. The assigned route risk value produced from this analysis is not intended to predict an absolute value or level of impact to water quality or aquatic systems, rather a hierarchical approach to prioritizing impact potential.</p>		

<b>Subject:</b> Fisheries and Aquatics		<b>Response #:</b> F-5, Opportunities
<b>Letter-Comment #:</b> 461-54	In order to ensure the accuracy of the Custer NF’s environmental analysis of aquatic systems, the Custer NF must provide a plan and implementation schedule to remove all non-system routes once the MVUM is released. Without such a plan the analysis would be based on a false assumption that all non-system routes not designated in the MVUM would have negligible environmental impacts.	
<p><b>Response:</b> The scope of this project is limited to the designation of system roads and trails. Proposed actions with site specific effects that potentially increase impacts to water quality and aquatic habitat would be mitigated in Alternative B Modified. Construction, reconstruction, maintenance and decommissioning proposals will require separate NEPA decisions. Appendix E includes opportunities to reduce impacts to water quality and aquatic habitat where there are: 1) site specific impacts from existing routes not associated with the proposed action, and 2) proposed actions with potential to improve conditions but do not eliminate impacts. Implementing mitigation measures to address opportunities will require future and separate NEPA decisions.</p>		

<b>Subject:</b> Fisheries and Aquatics		<b>Response #:</b> F-6, Dispersed Camping
<b>Letter-Comment #:</b> 461-56	Finally, the DEIS failed to analyze the impacts to fisheries and aquatics from the dispersed camping exemption. The preferred alternative will allow this exemption on all but two routes across the entire planning area, yet there is no mention of where dispersed camping could intersect with fisheries habitat for sensitive or management indicator species. In order to comply with NEPA, the Custer NF needs to analyze this issue for direct, indirect and cumulative impacts.	
<p><b>Response:</b> Effects of dispersed camping to fisheries and aquatic resources, under all alternatives, are disclosed in the FEIS (Fisheries and Aquatics Section, Environmental Consequences).</p>		

<b>Subject:</b> Fisheries and Aquatics		<b>Response #:</b> F-7, Cumulative Effects
<b>Letter-Comment #:</b> 461-58	“Under all action alternatives and for all watersheds in the analysis area (including non-sensitive species occupied watersheds), actions that do not reduce risk to aquatic systems for moderate and high risk routes are minimal and in most cases are offset by actions that reduce risk (see Water Quality Section).” (DEIS p. 3-118). This reasoning asserts that it is acceptable to designate motorized use on moderate and high risk routes because impacts will be offset by other beneficial actions. The DEIS did not adequately demonstrate that these actions will in fact reduce water quality risks. Furthermore, actions that introduce fine sediments into water quality limited segments for sedimentation are still Clean Water Act violations <sup>10</sup> even if supposedly offset in other segments. This sentence seems to say that the agency can degrade some sections because others will improve.	
<p><b>Response:</b> Cumulative effects are defined as "the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions, regardless of what agency or</p>		

**Chapter 5: Response to Comments**

<b>Subject:</b> Fisheries and Aquatics	<b>Response #: F-7, Cumulative Effects</b>
<p>person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (CFR 40 1508.7).</p> <p>The comment pertains to the following statement in the DEIS (Fisheries and Aquatics Section, Environmental Consequences): "Under all action alternatives and for all watersheds in the analysis area, actions that do not reduce risk to aquatic systems for moderate and high risk routes are minimal and in most cases are offset by actions that reduce risk." The intent of this statement was to provide rationale for differentiating potential cumulative effects to aquatic habitats among alternatives at the watershed scale and was not intended to infer that any level of impact to water quality or aquatic resources is acceptable.</p> <p>The scope of this project is limited to the designation of system roads and trails. Proposed actions with site specific effects that potentially increase impacts to water quality and aquatic habitat would be mitigated in Alternative B Modified. Construction, reconstruction, maintenance and decommissioning proposals will require future and separate NEPA decisions. Appendix E includes opportunities to reduce impacts to water quality and aquatic habitat where there are: 1) site specific impacts from existing routes not associated with the proposed action, and 2) proposed actions with potential to improve conditions but do not eliminate impacts. Implementing mitigation measures to address opportunities will require future and separate NEPA decisions.</p>	

**HUMAN ENVIRONMENT**

<b>Subject:</b> Human Environment	<b>Response #: H-1, Environmental Justice</b>
<b>Letter-Comment #:</b>  66-66	<p>Evaluations and decisions have been limited to natural resource management issues. Issues associated with motorized access and motorized recreation must be adequately addressed during the evaluation and decision-making including social, economic, and environmental justice issues. We are concerned that issues cannot be restricted to just those associated with natural resources. Access and recreation on public lands are essential needs of the public in Montana and we respectfully request that issues associated with the human environment be adequately addressed.</p>
66-70	<p>These and other socio-economic and environmental justice issues are obvious. The Forest Service is not exempt from the requirement to adequately address these issues in the evaluation and decision....We request that the proposed action comply with the Council on Environmental Quality (<a href="http://ceq.eh.doe.gov/nepa/regs/ej/justice.pdf">http://ceq.eh.doe.gov/nepa/regs/ej/justice.pdf</a>) recommendations in order to correct the disproportionately significant and adverse impacts that motorized recreationists have been subjected to including:...The cumulative negative impact of all closures on motorized recreationists are significant and warrants a revised strategy to deal with the issues surrounding this condition...To date, all of these factors have not been adequately examined with respect to motorized recreationists and the trend of excessive motorized access and recreational closures....Motorized recreationists have not had the opportunity to develop mitigation plans required to address the significant impact resulting from cumulative effect all closures.</p>
66-128	<p>We request that the environmental document adequately addresses the social, economic, and environmental justice issues associated with multiple-use access and motorized recreation. We request that the environmental document include a travel management alternative for the project area that adequately responds to these issues and the needs for multiple-use access and recreation.</p>
<p><b>Response:</b> The Travel Planning team has evaluated other resource management issues as well as the social, economic and environmental justice issues. All alternatives address the desire for multiple-use access and recreational use.</p> <p>The discussion that motorized recreationists should be identified as an environmental justice-covered population is not valid. Executive Order 12898 specifically deals with low-income and minority populations as the subject of this order.</p> <p>Environmental Justice was address in the DEIS, section 3.1.3. No effects to the well-being and the health of minorities and low income groups were identified during scoping and the proposed action would not disproportionately affect minority or low-income populations.</p>	

<b>Subject: Human Environment</b>		<b>Response #: H-2, Desired Type of Use</b>
<b>Letter-Comment #:</b> 27-3	However, hunters, hikers, horseback riders, and others are affected by OHV use and Alternative B does not allow adequate space for these uses to occur simultaneously.	
40-19	We support increasing opportunities for non-motorized uses such as viewing wildlife or natural features in solitude. We believe motorized activities should be limited so that they only occur in a manner and location that minimize effects to other public uses, and are consistent with protection of natural features, wildlife, and other resources. This provides further reason for our support of Alternative C since it provides greater limitations on motorized uses to allow greater levels of protection for wildlife, natural features, and other resources that are used by the public.	
48-3	None of the alternatives does a very good job of separating users and providing adequately size areas for competing uses.	
67-16	The Travel Planning Process allows closure of a route due to user conflicts. It is our position that such conflict can be resolved by closing the route to either conflicting party. It is inappropriate that conflicts always be resolved by closure to motorized users. Closure to hikers or stock users is an equally effective resolution.	
163-5	Little, if any, discussion is found in the DEIS conflicts between OHV users and quiet recreationists. OHV users don't seem to notice the commotion, noise, dust and disturbance they create and leave in their wake or realize the negative effects it has on quiet recreationists. Clouds of noise, dust and disturbance radiate over a large area.	
<b>Summary of Comments:</b> Commenter suggest motorized and non-motorized uses be separated.		
<b>Response:</b> The Forest seeks to provide a wide range of uses that include motorized and non-motorized opportunities for the recreating public. Alternative B Modified provides a variety of motorized and non-motorized opportunities that address the perceived conflicts. It is unlikely that any alternative could resolve the conflicts between individual values.		
There is no documentation of user conflicts on specific routes. Conflict was not used as criteria for route evaluation.		

<b>Subject: Human Environment</b>		<b>Response #: H-3, Documentation of Conflicts</b>
<b>Letter-Comment #:</b> 66-149	We are unaware of any documented or justifiable reports of user conflict in the project area. We request copies of any documentation of user conflicts in the area and request that it be categorized and weighed against the overall number of visitor-days to the area.	
74-7	..what is the degree and frequency of conflict of use? We have never experience conflict of use in 11 years.	
387-3	...there is no significant documental evidence to support conflict of uses on individual routes.	
396-8	Does the CNF have any non biased user survey results that prove that a significant amount of user conflict exists? Or is the user conflict rationale just a perceived problem that is used to restrict motorized access?	
411-29	Does the CNF have documented record of conflict issues? If the CNF has the above records or not, how has the CNF dealt with possible issues?	
411-30	Define a conflict issue and its importance to travel plan processes?	
411-32	Is the separation of user groups on trails, roads, recreational areas, and camping areas a highly recommended way by the CNF to reduce potential conflict over other forms of management such as education?	
411-33	Was the above CNF survey used as a potential info. Gathering a process to see if there was potential conflict on the CNF?	
421-12	What kind of conflicts and between which groups do you have record of? ... Using conflicts is not a rational reason to close trails to motorized use if the Forest Service has not done any mitigations to solve this problem if there is indeed a problem.	
<b>Summary of Comments:</b> Is there a documented record of conflict?		
<b>Response:</b> There is no significant documentation of conflicts on the Forest. Conflict was not used as criteria for route evaluation. However, public comments associated with this project indicate that there are very differing personal preferences related to the amount and types of motorized recreation opportunities that should be provided.		

**Chapter 5: Response to Comments**

<b>Subject:</b> Human Environment		<b>Response #:</b> H-4, Sense of Place and Motorized Access
<b>Letter-Comment #:</b> 66-81	The continual loss of motorized access and recreational opportunities is seriously degrading the local culture and quality of life. Public land is a cultural resource and access to the project area for many uses is part of the local culture. The decision for this project must consider the impacts that any closures will have on this culture....We request that the evaluation and proposed action adequately address this condition and not contribute further to this cumulative negative impact because it is already having a major impact on motorized recreationists.	
<b>Response:</b> The human environment as a part of the recreation resource was identified as a significant issue and was analyzed in the EIS (see Human Environment portion of the Recreation Section of Chapter 3).		

<b>Subject:</b> Human Environment		<b>Response #:</b> H-5, Route by Route User Conflict
<b>Letter-Comment #:</b> 461-13	The threshold established with this reasoning is flawed in that the determination of an unacceptable degree of conflict would only occur in the event that one user was entirely precluded from opportunities in line with their values across the whole planning area. Unfortunately, the DEIS failed to show a route-by-route analysis of the potential for user conflicts, and instead gave a listing in Appendix C of each route with a column for specific rationales. Providing a rationale does not substitute for a hard look analysis that is required under NEPA.	
461-14	Yet there is no corresponding list of routes where people identified the potential for user conflicts or where exclusive nonmotorized use could be agreed upon. It would be reasonable to assume that those routes not agreed to for designated motorized use would have the potential for user-conflicts. However, there is no alternative analyzed that measures or even describes the potential for user conflict on these routes. Nowhere in the DEIS does the Forest Service demonstrate that each proposed route change was analyzed in order to minimize user conflicts as required by EO 11644 as amended by EO 11989.	
<b>Response:</b> The Forest Service adhered to NEPA and the EO's. Comments reviewed from scoping, collaboration, and DEIS public review period indicated a general philosophical conflict between motorized and non-motorized uses rather than from route specific use conflicts. A route-by-route review was completed but no routes were closed due to conflict.		

**IMPLEMENTATION AND ENFORCEMENT**

<b>Subject:</b> Implementation and Enforcement		<b>Response #:</b> IMP-1, Motorized Enforcement Plan
<b>Letter-Comment #:</b> 34-2	While I have objections to allowing some motorized use in the Pryor's (or any other mountain areas) I don't feel that they should be the dominant use. Lack of enforcement of regulations will continue to pose a problem and unless that issue is also addressed we will continue to have rampant overuse by off-road vehicles in the Pryors and elsewhere.	
40-17	In addition, we support adding law enforcement personnel to handle the increase in motorized uses on the District. We particularly recommend increasing enforcement officer contact with off-road vehicle users and increasing enforcement staffing on holidays and weekends.	
41-9	If the enforcement level is the same in Alternative A and B (as claimed in Table 3-76, page 3-197) then enforcement in Alternative B will be spread thinner and be less effective. Ineffective enforcement will lead to more resource damage that will require even more funding and staff time to correct.	
48-2	Enforcement has been nearly absent up to this point and there is noting to show that it will improve after the new plan is implemented.	
66-141	We request the agencies to support and use mitigations and education as a means to address and mitigate problems rather than closures....We request the full use of education to address visitor problems. Additionally, individual motorized recreationists and groups can be called upon to assist with the implementation of the educational process.	

<b>Subject:</b> Implementation and Enforcement	<b>Response #:</b> IMP-1, Motorized Enforcement Plan
66-146	We recommend that the Travel Plan Map and Visitors Map be the same and that this combination map should include as much detail as possible (such as contour information) so that the public can better determine the location of roads and trails that are open or closed.
68-41	No matter how many MVUMs you distribute there are roads that need to be signed as closed to all vehicles. For example the west terminus of 2308G and the trail up Bear Canyon.
74-11	More clearly marked/named trails would increase compliance.
82-2	Block off the unauthorized “roads”, fine those who don’t follow the rules, make it miserable for them, but leave the right to use the Pryor’s to the people to who it belongs, the citizens of this country.
86-2	Focus on doing a better job policing and penalizing those who break the rules.
88-2	A more stringent plan is needed and above all serious consequences need to be placed upon those violators. Enforcement is the absolute key to which every plan is adopted. How can these new regulations be strictly enforced?
95-3	In your plans please increase the funding to allow more full time and part time personal to be directly involved with the enforcement of this new plan.
97-11	Police action is required, Patrols “voluntary motorized” and “voluntary naturalist” are possibilities. Education and Respect must be taught.
99-1	I feel that one of the biggest problems we have it that is very difficult to tell when you are on a designated trail or not. I think that if there is clear designation, most people would know what is expected of them and it would be much easier to obey the rules.
115-1	You must limit these destructive machines access and impose stiff fines for riding off trail.
124-23	Unless we missed it, we did not see any commitment to increased law enforcement directed at the ATV problem in the Travel plan.
161-9	(1) If the 1987 Plan is the root cause for lack of enforcement, The District should issue Forest Supervisor’s interim orders to correct the document. (2) Enforcement must be a priority item in the District Program of Work. (3) Enforcement and education action must be spread throughout all field going personnel in the organization. (4) The District must have a presence in the Pryors, to start the enforcement and education process. (5) Evaluate the current blanket application of the 300 foot rule for access to disbursed campsites and apply it sparingly as per direction in the 2005 Rule.
193-3	Educating all ATV and other road drivers of the proper etiquette on our primitive roads may go along way to keep all drivers on established roads only and not out making another unintended road.
232-3	... the enforcement agencies lack the personnel to catch and control these (mythical, I think) “minority outlaws”.
232-4	The expected continuing paucity of money for enforcement and remediation is discouraging: doesn’t matter what the rules are, if there’s no cop on the corner.
232-7	Spot-checking vehicles and disallowing further public land access to violators (or fines, confiscated, public flogging) as MT FWP does with game-law violators.
245-2	Ignorance of the law has never been an excuse, but it seems to me the answer to most of the problems is education, or lack thereof. I believe this is where the future lies.
248-1	I would urge you to explore ways to keep track of and potentially ticket drivers of ATV’s who trail at high speeds on closed and open roads, as well as those who go cross country, particularly in winter. Their damage to the land is obvious and their damage to the tranquility of this once quiet place is disturbing.
248-3	In defense of some of these offenders, there are no signs posted to prevent this any more, So, I would urge that signage and road blocks needs to be put up.
262-1	Well-marked signs and maps available to the public defining motorized and non-motorized use areas. The majority of visitors will follow the law if they have accurate information.
268-2	Well-marked signs and maps available to the public defining motorized and non-motorized use areas.
268-6	Allocate resources to provide consistent law enforcement and protection of cultural sites, wildlife habitat, and scenic beauty.

**Chapter 5: Response to Comments**

<b>Subject:</b> Implementation and Enforcement	<b>Response #:</b> IMP-1, Motorized Enforcement Plan
271-1	Unfortunately, any plan that is implemented without proper enforcement is doomed to fail. Only The Forest Service, not the public, can enforce the rules. We see nothing in any of the proposed plans that would lead us to believe that there would be any better enforcement with the new plan that under the existing plan.
280-1	The past ten years have been noticeably different – there are roads everywhere, with no apparent supervision from the responsible agencies for all this off road activity. It’s a shame – the Pryors should be returned to their “prior” beauty – enforce the unauthorized use areas – you should have been doing this long ago. Alternative C is the only choice regrettably.
290-2	I also urge you to add tough penalties rather than a slap on the wrist if someone takes a motorized vehicle where they should not.
291-2	While I am unhappy to see some ATV users driving where they should not it seems like closing the road is a very drastic answer to the problem and punishes more lawful hunters/fisherman than unlawful users. Perhaps more reporting of unlawful use by the public would be an answer. I would certainly be in favor of some type of enforcement over the road closure.
295-1	Enforcement is the key to any successful agenda and I believe that either additional funding for manpower or better yet get a good volunteer program to help assure a good balance for all users regardless of their mode of travel.
307-10	The Beartooth District has only one law enforcement official for the entire District. The fewer roads and classification of routes there are, the easier it will be for the public to understand the rules and for the official to enforce....It is unlikely that additional and adequate funding will happen in the near future, and the Travel Plan should reflect this reality by minimizing the number of routes.
307-11	Road 2140 should be open highway vehicles only (please refer to my comments above concerning unlicensed, uninsured vehicles and under-aged drivers). Consider closing the short spur roads numbered with 2140Bs. They are dead-end routes and will add to the maintenance, signage, and enforcement costs. Legalizing these roads for dispersed camping is a bad idea. Without proper enforcement, users will continue to extend the roads. If camping is needed in the area, the Forest Service should consider construction a formal campground. If funding is an issue, which it probably is, the Forest Service could charge for campsite use to pay for the construction and maintenance. The short spur roads off Road 2414 should be closed for the same reasons given for the 2140 B roads above.
307-14	Likewise, closing Road 21411 is a good decision. It is a dead-end road and keeping it open would add to the Forest Service maintenance and enforcement costs.
314-1	The FS does not have an adequate law enforcement team to keep ORVers from driving off standard routes, not does the agency have the money to harden trails so they don’t create problems. In light of this, the most reasonable response is to ban all thrillcraft.
345-7	Law Enforcement – History in the Pryors absolutely demonstrates that toothless rules invite violation. Therefore, I urge that the agency to: Adopt a policy that states a road is closed unless clearly signed open (notwithstanding the expectation that a master map will rule absolutely after the final Travel Plan is adopted.)
360-4	Your agency lacked the means to enforce your rules back then and by your preferred plan, you are encouraging more damage.
364-1	It seems there are enough roads, but not enough USFS personnel to regulate existing laws.
364-4	...stricter laws should be instituted and then very strictly enforced to manage the out of control drivers.
381-2	My biggest concern is how you plan on supervising whatever plan you decide upon. It will all be for naught if you don’t have some means by which to enforce it. Realizing that you are woefully under funded, I think you need to enlist Pryor Players in this endeavor. I think public awareness of the rules is essential so that they know what’s appropriate and what’s not. Then make them specific to the Pryors with support coming from volunteers and other Pryor users. That means you will need all the players, not just the birders, hikers, hunters, and horsemen. You will need ATV people which you won’t get if you attack them with Plan C.

<b>Subject:</b> Implementation and Enforcement	<b>Response #:</b> IMP-1, Motorized Enforcement Plan
386-9	Note: other general issues, like consistent law enforcement, protecting the resources (cultural sites, wildlife habitat, erosion, noxious weeds, solitude, visual beauty), informing the public, licensing for all vehicles and operators, roads signed as open are the only open roads, the 2001 Tri-state Plan, the 2005 Motorized Rule, costs of roads, all need to be considered and adhered to in implementing a balanced Travel Plan.
387-19	Non-motorized users prefer the multiple use trails as they are the best maintained and provide the best recreational experience. The problem comes when the FS does not properly sign the trails. When a picture of a motorcycle, 4x4, ATV and snowmobile are shown at the trailhead with a circle and red strike through them it portrays to the non-motorized user that this trail is closed to motorized users. Many people do not notice the dates that are associated with the sign showing when the motorized closure applies. The conflict between users is being caused by the agency and its disregard for the need for clear signage. A standardized multiple use sign for these areas must be posted to clearly inform people of the uses allowed in these areas. This corrective action would stop many complaints that the FS receives on user conflicts.
394-6	We are therefore deeply concerned by the Forest’s proposal to authorize unlicensed vehicles in a large area of the Pryors, including most Big Pryor Mountain. Surely this would make enforcement difficult. OHV spokespeople, conservationists, and USFS personnel have all suggested that formal and informal “citizen’s watch” efforts (i.e. report the violators) could significantly help reinforce official enforcement efforts. How can concerned citizens report the license plate number of an unlicensed OHV observed violating motor vehicle use regulations? We see no benefit to the fragile land or to responsible recreationists, either motorized or non-motorized, of allowing unlicensed vehicles on public land.
395-3	We need enforce current use rules and close off all illegally created roads and trails and make fines substantial for abusers.
403-1	We note that Route 24921 has non-motorized status since the 1987 Travel Plan yet ATVs have been sighted using this area. So it seems that enforcement is a key issue here.
403-2	In addition we support the policy of licensing all motorized vehicles using National Forest land so that it will be easier for violators of non-motorized trails to be reported to the proper authorities. We also support the policy of using stiff fines and the confiscation of vehicle for violators going onto non-motorized trails. Stricker (sic) enforcement of the travel plan must be a top priority by using new and more effective methods to discourage.
404-3	Something I have noticed in my three years going to the Pryors is how badly road 2308 is torn up between the Crooked Creek Road junction and the wild horse range boundary, especially between Big Ice Cave and the wild horse range boundary. From my observations, people get past the long-lasting snow banks and muddy conditions of the road by going around them. The road has thus become rough and wide. A seasonal closure may help alleviate this, but I am not so sure that it would keep everyone off the road unless there was thorough enforcement of the closures.
404-4	Near Dryhead Vista is a road that turns south from road 2308 and allows access to the Lost Water Canyon and Tony Island areas....I’m very much in favor of keeping the road closed, but I am frustrated that this closure is not posted.
404-7	While many visitors to the Pryors would act responsibly provided proper information, there are others that will do as they want unless given proper reason not to. Thus, proper enforcement is huge. I am unsure of how this plan can be enforced considering current financial situations of certain federal agencies like the Forest Service. It really is necessary though, and so anything you can do to have a presence in the Pryors would really help.
404-9	The creation of a new travel map will also be very beneficial as current maps are insufficient for describing all road closures and openings. When your travel map is available, I would also encourage the widespread distribution of it both in paper form and on your website. I can assure you the Pryor Mountain Wild Mustang Center would be happy to help you distribute them to visitors planning trips to the Pryors.

**Chapter 5: Response to Comments**

<b>Subject:</b> Implementation and Enforcement	<b>Response #:</b> IMP-1, Motorized Enforcement Plan
411-41	There is many clubs, organizations, and individuals with a stake in the future of our public lands. It is important to utilize these volunteers in maintaining these lands. With a little education, and the willingness of agencies to work with them, volunteers can make a difference in the management of the lands. Users can easily monitor trails and roads and report on their conditions. Many of the people of these organizations that do real on the groundwork are the people that are being restricted from many historical used areas.
414-7	Past absence of on the ground presence and enforcement is responsible for much resource abuse and damage, especially in the Pryors Unit. The welcome change from routes “Signed Closed” to routes “Designated Open” is a major step forward toward simplifying enforcement. However, signs, regulations, and travel maps cannot protect the resource alone. I urge you to find a way to put some real teeth in your enforcement efforts.
417-6	Past absence of staff on the ground presence and enforcement is responsible for much resource abuse and damage, especially in the Pryors Unit. The welcome change from routes Signed Closed” to routes “Designated Open” is a major step forward toward simplifying enforcement. However, signs regulations, and travel maps cannot protect the resource alone. We urge you to find a way to put some real teeth in your enforcement efforts.
421-5	Hiking trails should be well maintained and marked in order to allow for the best possible use of these areas. Designations should be made identifying areas in three categories: easiest, more difficult, and most difficult. Appropriate areas should be established with parking and staging areas... Trails for OHVs should be color coded so that users understand the difficulty of the trail they are embarking on. Standardization such as easiest, more difficult, and most difficult should be noted.
421-10	There are many clubs, organizations, and individuals with a stake in the future of our public lands. It is important to utilize these volunteers in maintaining these lands... Expanding programs like “Adopt a Trail” and ensuring that groups are working with agencies to provide proper trails will benefit all users and the forest. The creation of programs like “Stay on the Trail or Stay Home” signage will ensure longevity of user enjoyment.
425-14	The more complex road system and greater number of motorized routes in Alternative B will require more funding and staff time for enforcement. If the enforcement level is the same in Alternative B (as claimed in Table 3-76 page 3-197) then enforcement in Alternative B will be spread thinner and be less affective. Ineffective enforcement will lead to more resource damage which will require even more funding and staff time correct.
461-25	We commend you for your decisions to close road #20952 to public access and loop routes #2308B and 2308B1 to motorized use in Alternative B. However, we are concerned that there is no discussion in the environmental consequences section on p. 3-50 of how these areas will be closed and how closures will be enforced. No mitigation or enforcement plan has been disclosed, and without such plans it is highly unlikely that public motorized use will stop of its own volition.
440-2	I forest preferred alternative would involved increased road maintenance and additional law enforcement, the costs of which may not even be a possibility given the current lack of funding for adequate law enforcement. How will funding match the expansive plans of the preferred alternative? Can better enforcement be guaranteed with this alternative?
445-1	I remain concerned about maintenance and enforcement issues. It makes no sense to have a detailed travel plan if it can’t be implemented and can’t be enforced. If the final EIS calls for road closures who are you going to put them with only on full time, and several part-time law enforcement officer?
461-72	Even the most resource protective travel plan is only as good as the capacity to enforce restrictions. We would like to see an alternative based on the current enforcement capacity on the Custer NF.

<b>Subject: Implementation and Enforcement</b>		<b>Response #: IMP-1, Motorized Enforcement Plan</b>
461-73	We have a particular concern with the conclusion for Alt. C. The DEIS states, “This alternative does not include the designation of motorized trails within the Pryor Unit. As a result, the District will not be able to apply for State of Montana Recreation Trail Program grant funding for activities such as providing additional FPOs and coordinating/supporting volunteer patrol programs on the Pryor Unit, where there is a key need for this support. The Beartooth Unit would continue to be eligible for these Programs,” (DEIS p. 3-196). This seems to erroneously suggest that the Alternative B would be more enforceable, when in fact this is not the case. Those routes that are closed would not need the same level of enforcement as those designated open, therefore the costs would be less for Alternative C.	
461-74	Unfortunately, the DEIS did not adequately analyze implementation of the alternatives as there is no mention of the needed closure devices or a description of how these devices will be maintained. Enforcement and monitoring plans should be in place for each motorized route.	
483-6	We note that consistent law enforcement is the solution to preventing some of the resource damage and expansion of unauthorized roads seen over the past 20 years in the Beartooth District. Consistent signage, appropriate maps, licensing of all vehicles, and real enforcement are all critical.	
<b>Summary of Comments:</b> How will the project be implemented and enforced relative to motorized use?		
<b>Response:</b> Through the implementation of this travel plan decision, a clear system of designated roads and trails for motorized use will be employed. The 2005 Motorized Travel Rule clarified regulations under which we will implement this decision, and will make enforcement of illegal cross country travel much easier in the future. With a motor vehicle use map and standard route signs, along with an aggressive information and education campaign, users will have a better understanding of the designated routes available for use.		
All users, including enforcement officials, will be able to have a clearer understanding of the designated routes available for use. Violations of 36 CFR 261.13 are subject to a fine of up to \$5,000 or imprisonment for up to 6 months or both (U.S.C. 3571(e)). This prohibition applies regardless of the presence or absence of signs.		
Although there is no additional funding for implementation of this decision, it is one of the Forest Service’s national priorities set by the Chief. Partnership dollars, grants and volunteer work will likely play a significant role in implementing the selected alternative.		

<b>Subject: Implementation and Enforcement</b>		<b>Response #: IMP-2, Enforcement</b>
<b>Letter-Comment #:</b> 152-3	Of course, all the controls on travel, whatever they may be, are worthless unless there is adequate law enforcement.	
222-1	Without adequate enforcement all the good ideas and travel management plans mean nothing.	
222-5	And you should not allow them if you do not have the resources to police and enforce your own laws.	
360-3	There is no enforcement of speed of safety requirements and these machines are very powerful. Nor are they licensed.	
386-13	Any Travel Plan is again useless without enforcement, as we see with the 1987 TP.	
508-2	Plan also needs to identify the costs/staffing needs for enforcement. What can't be enforced must be closed to motorized use.	
<b>Summary of Comments:</b> Question the ability to enforce the project.		
<b>Response:</b> Enforcement of regulations is part of everyday operations on National Forests. Suggesting that if the Forest Service is unable to enforce every motorized violation we should manage the entire Forest as non-motorized is not a reasonable alternative to consider. There will be enforcement and education of the final decision to help users understand and comply with it.		

**Chapter 5: Response to Comments**

<b>Subject: Implementation and Enforcement</b>		<b>Response #: IMP-3, Non-motorized Enforcement Plan</b>
<b><u>Letter-Comment #:</u></b> 406-2	Past absence of on the ground presence and enforcement is what I blame for most forest abuse and damage... As an example of desk management, day use on Lake Fork, Crow Lake trail and Dry Head overlook restrictions; I see this approach as a Band-Aid for the forest's failure to provide on site presence with <b>ENFORCEMENT!</b> .What the forest needs is an "iron fist" enforcement and prosecution policy to return it to balance.	
411-2	There has been a stock camping restriction on the Lake fork drainage since 1981 up to 1/4 mile above September Morn lake and it has not been enforced.	
411-17	Crow Lake trail #13B. 8. Does the CNF have a plan for an area to tie stock for extended time periods at the junction of the Crow Lake. 9. The CNF would be better served if the Beartooth Backcountry Horseman were contacted to come up with a better solution to have a point specific tie up area established more than 200 feet from the lake and 100 feet from a stream. In an area that is signed, least visually obtrusive. With a natural looking hitching post or highline. With ground that naturally resistant to erosion, or a rocky area improved to let stock stand comfortably with natural drainage. 10. An action as mentioned above would quite possibly be done with local BCH help. And would most likely only need Categorical Exclusion to get this work done.	
411-21	Lake Mary. Better CNF signage and public info. To demonstrate there are poor camping opportunities at Lake Mary and that camping in the Quinnebaugh meadows provides the best stock camping opportunities in the West Fork of Rock Creek Drainage.	
421-5	Hiking trails should be well maintained and marked in order to allow for the best possible use of these areas. Designations should be made identifying areas in three categories: easiest, more difficult, and most difficult. Appropriate areas should be established with parking and staging areas... Trails for OHVs should be color coded so that users understand the difficulty of the trail they are embarking on. Standardization such as easiest, more difficult, and most difficult should be noted.	
<b><u>Summary of Comments:</u></b> How will the project be implemented and enforced relative to non-motorized use?		
<p><b><u>Response:</u></b> Travel management is one of the chief’s priorities. Information at trailhead portals, partnerships, grants, and volunteers will likely play a significant role in implementing the travel management decision. Actions such as those outlined above are listed in the opportunities list found in Appendix E.</p> <p>There is a management plan for the AB Wilderness which provides direction regarding signing and stock use. Permanent hitching posts or specific tie up areas are not compatible with Wilderness values. However, there is an opportunity to work with Back Country Horsemen or other individuals and groups to improve management of the Wilderness.</p> <p>All system trails are classified relative to use and maintenance objectives. Policy directs that minimal signing be done, and is especially discouraged in Wilderness. However, trail difficulty or suitable stock camping areas could be posted at trailhead portals could be considered as an opportunity. These ideas are listed in Appendix E as opportunities to consider in the future.</p>		

<b>Subject: Implementation and Enforcement</b>		<b>Response #: IMP-4, Vehicle License Requirements</b>
<b><u>Letter-Comment #:</u></b> 248-2	I would think that you should require that any ATV in the Pryors be licensed. I would suggest having some kind of registration at the bottom of the mountains on Sage Creek and Crooked Creek Roads, as well as Burnt Timber and Sykes Ridge Roads (in cooperation with the BLM). As just ordinary people on the Pryors, we have no method to report an offender who is traveling off road or on theoretically closed roads. Usually we just see the color of the ATV's and the number of people in the group. At least a visible license could be noted if we can get close enough. I don't know whether this is in the mix for consideration but I think it needs to be discussed.	
307-5	Allowing unlicensed vehicles would complicate enforcement. The license plate or tag is the only way to identify vehicles and owners.	

<b>Subject:</b> Implementation and Enforcement		<b>Response #:</b> IMP-4, Vehicle License Requirements
394-6	We are therefore deeply concerned by the Forest’s proposal to authorize unlicensed vehicles in a large area of the Pryors, including most Big Pryor Mountain. Surely this would make enforcement difficult. OHV spokespeople, conservationists, and USFS personnel have all suggested that formal and informal “citizen’s watch” efforts (i.e. report the violators) could significantly help reinforce official enforcement efforts. How can concerned citizens report the license plate number of an unlicensed OHV observed violating motor vehicle use regulations? We see no benefit to the fragile land or to responsible recreationists, either motorized or non-motorized, of allowing unlicensed vehicles on public land.	
418-6	A License and Registration requirement for vehicles and drivers using the Forest is critical. When enforcement is such a problem it is ridiculous to allow unlicensed vehicles and drivers to use NFS lands. How can violators be reported?	
<b>Response:</b> The Forest Service, by policy, defers to state motor vehicle licensing requirements. In Montana, motor vehicles are required to be licensed to be operated on National Forest System roads. Licenses are not required for motor vehicles to operate on National Forest System trails. All OHVs belonging to residents of the State of Montana are required to be registered and display an OHV sticker that has a unique identifier number. In addition, trailers that haul unlicensed OHVs must be licensed. There are many types of information that can be used to report a violation including: date, location, time, vehicle/trailer information (license plate, OHV sticker, make, model, and color), and operator information.		

**MAINTENANCE**

<b>Subject:</b> Maintenance		<b>Response #:</b> MTCE-1, Budget
<b>Letter-Comment #:</b> 40-3	Adequate budgets need to be provided to maintain the roads remaining on the road system within the analysis area. We believe the preferred alternative should include a greater commitment of resources to road maintenance to reduce risks to water quality and fisheries. We encourage the Forest Service to incorporate as much road rehabilitation and road closure and decommissioning as possible in its preferred alternative, particularly removal of road stream crossing, and obliteration of road causing resource damages.	
40-4	We also do not support the addition of new routes to the road system (e.g. #21407, #241412, #21401A, #21401B), especially routes with high risk of erosion and water quality impacts, when funding for road maintenance is already inadequate to address resource impacts from existing roads and nearby campsites. New routes and increased demands for road maintenance should not be placed on the system when road maintenance is already inadequate and overburdened. The EPA believes road and trail networks should be limited to those that can be adequately maintained within agency budgets and capabilities, and roads which cannot be properly maintained should be decommissioned.	
40-8	It is not clear, therefore, how many roads are currently on the District to compare the 28 miles of annual road maintenance to, but it appears that only approximately 8-13% of the roads on the District to receive annual maintenance.	
40-9	We believe that there should be a continuing road inspection, evaluation and maintenance program in place to identify road drainage and BMP needs, including an inspection, evaluation and road maintenance program, and adequate funds to correct road deficiencies.	
40-13	The also DEIS states on page 3-93 in regard to adding routes #21407 and #241412 that "it is unknown when maintenance would occur," and that impacts from dispersed campsites near roads will, "continue into the foreseeable until site maintenance occurs, although it is unknown when maintenance would occur," and that "maintenance will be insufficient to address the problems" on routes #21401A and #21401B (page 3-94). These statements only reinforce EPA concerns about the inadequacy of Forest Service road maintenance budgets.	
40-26	We recommend that the preferred alternative include modifications to reduce roads in high hazard areas; avoid adding new roads that overburden the already inadequate road maintenance budget; and include a greater commitment of resources to road maintenance and road decommissioning to reduce risks to water quality and fisheries.	

**Chapter 5: Response to Comments**

<b>Subject:</b> Maintenance	<b>Response #: MTCE-1, Budget</b>
41-8	Economically, Alternative B is clearly not the best choice for an under budgeted and overextended office. According to Table 3-79 on page 3-200, the estimated yearly maintenance cost for Alternative B is \$96,000 greater than for Alternative C. It doesn't seem wise to create more motorized routes than funding is available to maintain.
42-1	I favor a plan that limits vehicular traffic to roadways that are maintained. And, if those roads do not have an improved surface, no off road vehicles should be allowed on them if they are wet inasmuch as deep ruts are developed very quickly by the ATVs.
124-22	The plan makes no funding commitment towards maintaining roads and trails. Considering that little has been spent in the past on upgrading existing roads and trails, it is puzzling the Forest Service would choose Alternative B that would add still more road miles to be maintained.
129-31	It doesn't seem prudent to create more motorized routes than funding is available to maintain. So Alternative C seems both less expensive and wiser. But the estimated maintenance cost is only part of the cost difference between Alternatives B and The Pryors Coalition 19 C. For example: Five times as many acres in Alternative B are highly susceptible to noxious weed infestation than in Alternative C. (See Vegetation section.) This will require more funding and staff time for weed monitoring and treatment. If the needed weed control staff and funding are not available then it is likely that noxious weeds will infest significant areas of the Pryors.
161-1	With the prospect of receiving low levels of funding now and in the future, you should be recommending closure of all the non-system "User created" routes and sufficient System Roads to fit within the anticipated funding.
161-7	Rewrite the discussion on Issue #3, "Economics", bringing into the discussion the planned costs to manage, maintain and, if necessary reconstruct the System. Deferred maintenance has a cost. This is mostly the cost of reconstruction rather than simple or heavy maintenance. It should be recognized somehow.
161-8	Add no new roads or motorized trails to the System until the Agency has demonstrated that the entire System can be managed and maintained to current Agency Standards.
307-21	Road maintenance Forest-wide has suffered due to inadequate funding. This situation is not likely to change in the near future. The Forest Service must consider this reality, and should consider closing or not authorizing roads that cannot adequately be maintained.
307-22	The Forest Service needs to consider the number of roads it can realistically maintain and close the rest.
386-12	The CNF has not been able to maintain legal roads in the Pryors due to lack of budget, and has no plans to increase that budget, so that alone is reason to not add system roads.
406-9	Our past record of road maintenance is dismal - if CNF can't afford to maintain, then it must decommission - be realistic. Why don't we talk about the real and true long term coast of deferred, maintenance and decommissioning; because I think, the figures would be nauseating.
425-12	It is to be questioned whether funds for road maintenance may or may not be available. If they are not available, it doesn't seem wise to create more motorized routes than funding is available to maintain them. Therefore we believe that Alternative C would be the prudent approach to one of the most serious potential problems for this Travel Plan. In our view, certain roads and motorized trail/miles must be reduced in order to properly provide adequate maintenance of accepted roads.
435-4	Some money needs to be spent on wet and also rocky sections of roads by filling in and building up wet sections with rock and gravel and covering rocky sections with gravel.
482-1	More effort and time should be spent on road maintenance and upkeep. A lot of the roads in the Pryor Mtns as well as the roads and trails in the Stillwater area have not had any maintenance for the last 10 years.
<b>Summary of Comments:</b> There is question on the ability to maintain all the roads and trails being designated.	
<b>Response:</b> Funding for maintenance of roads and trails is not anticipated to change significantly in the next 10 years. Based on past funding levels, the Forest is unlikely to have sufficient funding to maintain to standard all of the routes necessary for the administration, utilization, and protection of the District for the foreseeable future. As a result, the Forest prioritizes maintenance work and routinely applies for additional/supplemental funding to increase the number of miles of road and trail maintenance completed. If issues arise, road closures will be considered to protect resources and/or user safety.	
Partnerships, grants and volunteer work could play a significant role in maintaining the forests roads and trails.	

<b>Subject:</b> Maintenance		<b>Response #:</b> MTCE-2, Gas Tax
<b>Letter-Comment #:</b> 66-91	We request that maintenance actions be taken before closure actions. We believe that this is a viable alternative that would address many of the issues that are driving the pre-determined decision to closure. OHV recreation generates significant gas tax revenue that could be tapped for this purpose.	
<b>Response:</b> The state gas tax is not directly available to the Forest Service. The State does provide grants for OHV trails which are funded partly from state gas tax. The Forest Service must compete for these grants.		

<b>Subject:</b> Maintenance		<b>Response #:</b> MTCE-3, Cost Tables
<b>Letter-Comment #:</b> 155-9	What is not shown in these tables are costs associated with signage, trail maintenance and all other costs for areas that are only accessible to non-motorized users.	
<b>Response:</b> Table 3-79 in the DEIS was intended to provide readers with a comparison of maintenance costs associated with motorized use. The majority of the actions are related to motorized use have a substantive difference that could be displayed. Non-motorized actions were minor with no substantive difference in maintenance costs.		

<b>Subject:</b> Maintenance		<b>Response #:</b> MTCE-4, Motorized Route Maintenance
<b>Letter-Comment #:</b> 40-11	We believe efforts to improve road conditions and reduce sediment delivery from roads and decommission unneeded roads should be an important element of the Travel Plan. One of our main concerns with travel planning is that the poor conditions of existing roads and trails are often not adequately addressed during the process.	
66-78	National Forest officials have stated that all challenging motorized roads and trails would be eliminated due to their concerns about hazards on those routes. For many of us, these are the very routes that we consider to have the greatest recreational value....We request that this unreasonable and discriminatory criterion be dropped immediately from the process and that the process be restarted without this criterion.	
385-4	This summer I went for a hike out of the Meyers Creek Work Center. Signs said that vehicles were not allowed on Trail27. This turned out to not be true. Five motorcycles passed us on the trail as we were going up a fairly steep portion of the trail along the South Fork of Meyers Creek. This was early July. There was water running down the trail. The bikes dug up the trail and increased the erosion. There were water and rocks tumbling down the trail. This trail should not have been opened to ORV use until this portion of the trail was improved to handle that kind of use.	
386-19	Road #2097 (Beaverslide) is too steep and dangerous to be a system road.	
461-4	Therefore, the designation of any non-system route as a motorized trail should also include an assessment of current compliance with trail construction standards and how any areas of non-compliance will be addressed.	
461-70	We note that the Forest Service currently has no trail design parameters for vehicles larger than ATVs, which would seem to indicate a belief within the agency that pickups, jeeps, and other vehicles larger than 50 inches wide belong on roads, not motorized trails. Given this legal ambiguity, we urge that any routes allowing vehicles greater than 50" be designated and managed as Maintenance Level 2 roads.	
<b>Summary of Comments:</b> Some are concerned that roads and trails need to be improved to meet standards prior to designation. Others question the type of standards needed for roads and trails to be designated.		
<b>Response:</b> There are no specific "standards" for motorized trail construction, and existing Forest Service guidance related to motorized trail construction is general. More specific guidance is currently being developed.		
We have reviewed all of the non-system routes that are proposed to be converted to motorized system trails to identify if natural and cultural resource issues exist. No issues were identified with these specific routes.		
All routes including challenging routes, have a maintenance class assigned to them and are maintained at different levels and rates depending on the priority and available resources.		
Alternative B Modified season of use, minimized impacts during spring thaw, including Meyers Trail #27 and Beaverslide #2097.		

**Chapter 5: Response to Comments**

<b>Subject:</b> Maintenance	<b>Response #: MTCE-4, Motorized Route Maintenance</b>
<p>The range of alternatives outlines a mix of roads versus motorized trails that includes vehicles over 50". The only motorized trails for vehicles over 50" occur on Big Pryor Mountain.</p> <p>No specific human hazards were identified with any routes being considered in this process. In addition, the Forest Service did not use the "degree of challenge" related to hazards as a criterion for determining whether or not to designate a route.</p> <p>Effects have been evaluated for all of the alternatives.</p>	

<b>Subject:</b> Management	<b>Response #: MTCE-5, Road Density</b>
<b>Letter-Comment #:</b> 461-82	One of our concerns stems from the fact that once a road is reclassified as a trail, it is no longer considered in road density analyses and it no longer receives the same maintenance.
<p><b>Response:</b> Depending on the analysis being done density calculations can be based on a number of factors. If motorized access is the concern, all motorized routes, regardless of road or trail, have been included in the density calculations.</p> <p>All routes have a maintenance class assigned to them and are maintained at different levels depending on the resource need.</p>	

**MANAGEMENT**

<b>Subject:</b> Management	<b>Response #: MGMT-1, Zoning</b>
<b>Letter-Comment #:</b> 124-10	Resource-rich areas of the Pryors need to be identified (is zoning the right word?) and rules laid down as to what uses would be allowed or disallowed in each.
129-2	A second general concern with the Travel Planning process is that it apparently was not based on any long range vision for the desired future condition of the Pryor Mountains. This is indicated by the following quotation from the DEIS: "Zoning areas by type of use or similar management prescription is more appropriate for land management planning. This analysis is largely focused on the designation and use of routes (roads and trails), rather than prescriptive land use direction that would require amending current Forest Plan land use direction which is beyond the scope of this analysis." (DEIS page 2-10) We find the Forest's argument that they are attempting to do travel planning without doing management planning completely inadequate and unconvincing. Travel Planning IS management planning. Very few management decisions have more impact on land use direction than travel planning. The designation of roads preempts future management planning. The Travel Plan is doing management planning by default. For example, designating routes #2088 and #2144 in the Preferred Alternative will preclude the designation of two valuable non-motorized zones in future management planning. At a minimum, the possibility of achieving and maintaining the desired future condition must be preserved. The best, and easiest, way to create a Travel Plan is to start with a vision of what the Pryors should look like several decades into the future. Why are the Pryors important? How can that be preserved? What will be the value of the Pryors to people in the region in the future? A broad range of resources need to be protected, and a broad range of recreational interests need to be accommodated while minimizing conflict among them and limiting impact on the resources. People want motorized access, and people want to be able to get away from roads. It seems obvious that to protect ecosystems and individual species the first thing to do would be to define zones for that purpose.
129-24	As long as both motorized and non-motorized recreation are allowed in the Pryors there will be conflicts among users. However basing the Travel Plan on a zoning plan could reduce these conflicts. Unfortunately the Forest rejected this approach
219-2	Why has the Forest Service ignored the work of the Montana Wilderness Association, Audubon Society, Back Country Horsemen, and others? These groups spend five years to devise a substitute "vision" for the Pryor Mountains. Their vision provides a more-than-generous 75 miles of roads, routes around five non-motorized zones that offer both protection of the area's resources (including wildlife) and quiet recreation.

<b>Subject: Management</b>		<b>Response #: MGMT-1, Zoning</b>
279-1	I recommend that as much as possible, there be separate designed areas for motorized use and hiking-horseback riding use.	
288-2	As long as both motorized and non-motorized recreation are allowed in the Pryors, there will be conflict among users. These conflicts could be reduced, however, by basing the Travel Plan on a zoning plan.	
288-3	These conflicts could be reduced, however, by basing the travel plan on a zoning plan. Multiple use does not mean all uses on all acres, thus we urge the FS to consider the adoption of a plan that sets aside quiet non-motorized areas from motorized areas, even mountain bike areas from horse areas should be considered.	
467-17	By rejecting landscape area zoning, and by rejecting designation of non-motorized areas as called for in Executive Order 11644 (Section 3) the Forest Service gives the Pryors short shrift...The DEIS thus seems to contradict itself in terms of the Forest Service's willingness and ability to amend the Forest Plan. Moreover, much of what we are recommending is expressly authorized by the Forest Plan (see Appendix A).	
<b>Summary of Comments:</b> Travel Planning should zone uses.		
<p><b>Response:</b> The Custer National Forest and National Grasslands Land and Resource Management Plan was developed through the long-term resource management planning efforts required by the National Forest Management Act, as amended. This very public process set the goals, objectives, forest-wide and management area standards for the Forest and provides the basis for management of the Forest's resources. Site-specific efforts such as travel management planning address a component of Forest management, but are not intended to be the more comprehensive planning effort associated with Forest-level land management planning. Site-specific efforts like travel management planning must be consistent with the Forest Plan.</p> <p>Forest Plan Management Areas in the analysis area, the Beartooth Ranger District, are B, C, D, E, F, G, H, I, L, M, P, Q, R, and T. Of these, Management Areas H (recommended wilderness), I (Wilderness), and L (Research Natural Areas) generally prohibit motorized use in them.</p>		

<b>Subject: Management</b>		<b>Response #: MGMT-2, Cave Management</b>
<b>Letter-Comment #:</b> 406-6	Again the Forest Plan calls for special attention and evaluation of cave and sinkhole sights for adverse effects of surface activity. Has this study been completed, with satisfactory answers, concerning this proliferation of roads?	
<p><b>Response:</b> The direction provided in the Forest Plan related to cave resource protection has been considered. An evaluation of the potential for the proposed action to affect cave resources was conducted and is in the project record. The evaluation keyed on the direction related to "ground disturbing activities" and "management practices" (proposed actions) with the potential to introduce additional sediment into caves. There are no ground disturbing activities associated with the project. The Pryor Unit cave inventory was used to evaluate the proximity of proposed system road additions to cave resource and determine the potential for impacts. The evaluation determined that there was a low probability for Alternative A to have effects, and did not identify any potential for the proposed actions associated with Alternatives B, C, and B Modified to have adverse impacts to cave resources.</p>		

<b>Subject: Management</b>		<b>Response #: MGMT-3, Roadless Areas</b>
<b>Letter-Comment #:</b> 40-22	We encourage the Custer NF to restrict motorized use in remaining roadless areas to protect the pristine characteristics of such areas. We support closure of motorized routes created by cross-country travel in such areas, with closures policed and enforced. We support the features of Alternative C that would result in the fewest open road miles within roadless areas.	
314-2	At the same time, the FS should protect all roadless areas and manage as wilderness until Congress has acted upon it one way or another.	
<p><b>Response:</b> To clarify, since at least 1987 no cross country travel (no off-road vehicle travel) has been approved on the Forest, except in the Benbow/Picket Pin area per the 1987 Beartooth Travel Plan. That use is consistent with the 1987 Forest Plan which prohibited cross country travel as noted on page 13, in Forest-wide standard 2. Recreation c. Off-Road Vehicle Use "...restrictions will provide reasonable access for public recreation, hunting and range maintenance/administration, but will confine motorized vehicles to specific roads, trails, or areas identified on a map. Vehicular access off these designated locations will be prohibited." The 2001 Tri-State Off-Highway Vehicle Decision reaffirmed the Forest Plan standard and the off-road use in the Benbow/Picket Pin areas was curtailed. Dispersed camping, parking and use have been allowed and are consistent with Forest Plan direction as well as the 2001 Tri-State</p>		

**Chapter 5: Response to Comments**

<b>Subject:</b> Management	<b>Response #:</b> MGMT-3, Roadless Areas
Off-Highway Vehicle Decision. The 2001 Roadless Area Conservation Rule currently provides guidance for travel management in roadless areas as noted in Chapter 1, Roadless Rule of the FEIS.	

<b>Subject:</b> Management	<b>Response #:</b> MGMT-4, Purpose and Need
<b>Letter-Comment #:</b>  66-64	In summary, the proposed alternative is built upon a tenuous foundation which assumes that: (1) various statutes require that ecological sustainability be the dominant consideration for all management of National forests; (2) sustained yield of various goods and services derived from the forests cannot be achieved without first achieving ecological sustainability; and (3) that ecological sustainability in all cases is the highest and best use of the forests for the American people. To be supportable, these assumptions would require significant legal, scientific, and economic data. As it is, such data has not been provided and these assumptions are false, therefore, the proposed alternative is flawed and should not be adopted.
<b>Response:</b> See the Purpose and Need for the proposal, as well as the Scope of the Decisions to be Made in Chapter 1 of the FEIS. Pursuant to the 2001 Tri-State Off-Highway Vehicle Decision, the Forest had identified travel management on the Beartooth Ranger District as a high priority and had started efforts to comply with that decision. The Forest had to assess the on-going effort in consideration of the 2005 Motorized Travel Rule. The Department of Agriculture issued the 2005 Motorized Travel Rule to be consistent with Executive Orders 11644 and 11989, and to serve as the means to implement the policy direction contained in these Executive Orders, as well as comply with myriad other laws, regulations, and policies applicable to National Forest System lands. The 2005 Motorized Travel Rule places more emphasis on considering the effects of motorized trails and areas, than of roads. Consistent with the 2005 Motorized Travel Rule, development of the Preferred Alternative, specifically included considering effects of trails with the objective of minimizing effects related to damage to soil, watershed, vegetation, other forest resources, harassment of wildlife, disruption of wildlife habitats, and conflicts between motorized trail use and existing uses. The other alternatives that have been developed to reflect the scope and range of uses, users, and input provided by the public. The development of the Proposed Action, other reasonable alternatives to the Proposed Action and the effects analysis are consistent with the regulations implementing the National Environmental Policy Act at 40 CFR 1500-1508, but in particular at 40 CFR 1501.7, 1502.16, and 1508.14	

<b>Subject:</b> Management	<b>Response #:</b> MGMT-5, Scope
<b>Letter-Comment #:</b>  66-65	Mountain States Legal Foundation, which has made numerous appearances before the U.S. Supreme Court and federal courts of appeals, filed comments with the Colorado Roadless Areas Review Task Force and has advised “The U.S. Forest Service may not manage federal land as wilderness unless Congress has designated that land as wilderness”. This legal opinion must be considered adequately and made part of this proposed project.
<b>Response:</b> See the Purpose and Need for the proposal in Chapter 1 of the FEIS, as well as the Scope of the Decisions to be Made. Specifically, the decision to be made is to designate a system of roads and trails on the District for public motorized use. The type of vehicle and season of use would also be designated for each system road and motorized trail. The Responsible Official will not be making a decision to recommend any areas for wilderness designation. Areas that have been recommended for wilderness classification have been allocated as Management Area H in the Forest Plan.	

<b>Subject:</b> Management	<b>Response #:</b> MGMT-6, Baseline
<b>Letter-Comment #:</b>  66-74	We request that the process be restarted and that all existing roads and trails which are available for use by motorized recreationists be adequately identified as the baseline alternative.
<b>Response:</b> An exhaustive public involvement effort to identify significant issues and alternatives has been on-going since at least 2004 (see Chapter 2 of the FEIS). Alternative A, described in Chapter 2 of the FEIS, is generally described as the existing condition and would designate public motorized use on a majority of routes (system and non-system) that were identified during the 1999-2000 inventory. However, Alternative A is not considered the baseline for analysis. Rather the No Action Alternative, described in Chapter 2 of the FEIS, is the baseline for analysis. This is because designation of the existing network of system roads would not require further NEPA analysis and represents the starting point for any proposed changes to the routes or areas available for public motorized use.	

<b>Subject:</b> Management		<b>Response #:</b> MGMT-7, 2001 Tri-State Off-Highway Vehicle Decision
<b>Letter-Comment #:</b> 66-122	We request a clarification in the document that travelways with these origins are legal travelways as recognized by all policies and decisions including the 3-States OHV ROD, national OHV and route designation policy, and BLM OHV policies.	
<b>Response:</b> The Record of Decision for the 2001 Tri-State Off-Highway Vehicle Decision amended forest plans to prohibit motorized wheeled cross-country travel to protect natural resource values (see Purpose in the Purpose and Need section). The 2001 Tri-State decision did not change the current year-long or closed designation of areas, nor did it change current road or trail designations. It did set timeframes in which site specific travel management NEPA analyses efforts should occur for National Forests and Grasslands affected by the decision that did not have site specific travel plans.		

<b>Subject:</b> Management		<b>Response #:</b> MGMT-8, FS-643 Roads Analysis
<b>Letter-Comment #:</b> 66-126	We request that FS-643 be used in this evaluation to determine the specific values of each motorized road and trail.	
66-127	We request full use of the FS-643 Roads Analysis Manual in order to adequately account for the social, economic, cultural, and traditional values that motorized roads and trails provide to the public. FS-643 should be used on every road and trail segment in order to adequately identify and evaluate the needs of motorized visitors and in order to avoid contributing to additional cumulative negative impacts to motorized visitors.	
<b>Response:</b> Route by route evaluation was completed in the analysis and is consistent with the 2005 Travel Rule. The 2005 Travel rule is consistent with FS-643. Please see FEIS Appendix C, project record, and rationale for each route.		

<b>Subject:</b> Management		<b>Response #:</b> MGMT-9, Exemptions
<b>Letter-Comment #:</b> 66-153	We request that the process include consideration of the negative impacts that proposed motorized road and trail closures will have on fire management, fuel wood harvest for home heating, and timber management. The analysis should include an analysis of the benefits to the public from the gathering of deadfall for firewood from each of the roads and trails proposed for closure.	
66-162	Agencies should not use motorized access in areas closed to motorized access by the public because: (a) the public will see the tracks and could become upset that the motorized closure is being violated and/or (b) the public will see the tracks and conclude that motorized access is acceptable.	
350-2	In the last ten years Montana has lost considerable land to forest fires. By abandoning roads and trails into the forest interior, we will detrimentally limit our state's ability to protect our forests. In a shortsighted effort to limit the cost of road maintenance, we will put our forests in jeopardy.	
<b>Response:</b> The regulations per 36 CFR 212.51 exempt some vehicles and uses from the designations of the Travel Rule. These are: (1) Aircraft; (2) Watercraft; (3) Over-snow vehicles (see §212.81); (4) Limited administrative use by the Forest Service; (5) Use of any fire, military, emergency, or law enforcement vehicle for emergency purposes; (6) Authorized use of any combat or combat support vehicle for national defense purposes; (7) Law enforcement response to violations of law, including pursuit; and (8) Motor vehicle use that is specifically authorized under a written authorization issued under Federal law or regulation.		

<b>Subject:</b> Management		<b>Response #:</b> MGMT-10, Best Available Data
<b>Letter-Comment #:</b> 68-7	The Forest Service is remiss in not collecting precipitation data for the Pryors which is needed not only for management of the road system, but for proper management of the subalpine horse range and grazing allotments.	
<b>Response:</b> Precipitation and Flow Regimes presented in the FEIS in the Water Quality Affected Environment section are based on best available information.		

**Chapter 5: Response to Comments**

<b>Subject:</b> Management		<b>Response #:</b> MGMT-11, Wilderness Study Areas
<b>Letter-Comment #:</b> 106-5	We urge you to keep ORVs strictly out of Wilderness study areas.	
<p><b>Response:</b> There are no Wilderness Study Areas on the Custer National Forest. Forest Plan Management Area H contains the lands recommended for wilderness classification. Areas recommended for wilderness are in Lost Water Canyon in the Pryor Mountains and other smaller areas that lie adjacent to the Absaroka-Beartooth Wilderness. None of the action alternatives propose to designate motorized routes in recommended wilderness areas. See Forest Plan pages 67 through 68 and the Forest Plan Management Area Map for the Beartooth Ranger District for management area direction, and locations of these areas on the Forest respectively. Existing system routes within Management Area H are proposed to be designated in Alternative A and the No Action Alternative; designation of routes in Management Area H is avoided in all other alternatives.</p>		

<b>Subject:</b> Management		<b>Response #:</b> MGMT-12, Forest Plan
<b>Letter-Comment #:</b> 163-1	There does not appear to be big picture/desired future condition/best management practices consideration of the landscape and resources to guide development of the Travel Plan. By creating a travel plan without an overview, you are, de facto, allocating one-sided management designation of motorized recreation for the Pryors.	
<p><b>Response:</b> The Custer National Forest and National Grasslands Land and Resource Management Plan was developed through the long-term resource management planning efforts required by the National Forest Management Act, as amended. This very public process set the goals, objectives, forest-wide and management area standards for the Forest and provides the basis for management of the Forest's resources. Site-specific efforts such as travel management planning address a component of Forest management, but are not intended to be the more comprehensive planning effort associated with Forest-level land management planning. Site-specific efforts like travel management planning must be consistent with the Forest Plan.</p>		

<b>Subject:</b> Management		<b>Response #:</b> MGMT-13, Wilderness Plan
<b>Letter-Comment #:</b> 411-9	Does the CNF have a wilderness management plan that has been used in the past, present, or being developed for the future to address overnight stock camping in these areas.	
<p><b>Response:</b> Yes. The A-B Wilderness Plan is in effect. Forest Plan Appendix II is intended to highlight the specific management direction developed in the Absaroka-Beartooth Wilderness Management Plan, a document prepared jointly by the Gallatin and Custer National Forests. Copies of this document are available at the Supervisor's Offices of the Gallatin and Custer National Forests.</p>		

<b>Subject:</b> Management		<b>Response #:</b> MGMT-14, 36 CFR 261
<b>Letter-Comment #:</b> 461-77	To comply with the TMR, a Forest must address and implement the Rule as a unitary whole; both subparts A and B must be implemented simultaneously.	
<p><b>Response:</b> The 36 CFR 261 Subpart A General Prohibitions states that, "After National Forest System roads, National Forest System trails, and areas on National Forest System lands have been designated pursuant to 36 CFR 212.51 on an administrative unit or a Ranger District of the National Forest System, and these designations have been identified on a motor vehicle use map, it is prohibited to possess or operate a motor vehicle on National Forest System lands in that administrative unit or Ranger District other than in accordance with those designations." There is no requirement in the 2005 Motorized Travel Rule to simultaneously execute a Forest Order under 36 CFR 261 Subpart B in order to implement the prohibitions created by issuance of the motor vehicle use map. The motorized vehicle use map allows enforcement of the decisions made through this project – no additional prohibitions are needed to enforce the motor vehicle use identified on the motor vehicle use map.</p>		

<b>Subject: Management</b>		<b>Response #: MGMT-15, Forest Plan Standards</b>
<b>Letter-Comment #:</b> 467-33	MWA members suggest the authors have it exactly backwards. The site-specific Custer Forest Plan with its stronger recreation standards is the guiding document the Custer must follow. It is not possible for a generic programmatic EIS to gut existing recreation standards developed through years of public involvement in the site-specific Custer National Forest Plan. No such effect - namely, the weakening of Custer Forest Plan standards - is examined, anticipated, or alleged in the generic Tri-State PEIS.	
<p><b>Response:</b> Forest Service planning is generally done at two levels, the programmatic forest plan level and the site specific project level. Forest Plans establish Forest goals, objectives, forest-wide standards and management area standards. Suitable areas were identified for land uses across the Forest; these were identified as management areas. Management area goals, objectives and standards provide guidance for project level planning and decision-making, but are not site-specific enough to fulfill the requirements for project level analyses required by the NEPA.</p> <p>The 2001 Tri-State Off-Highway Vehicle Decision amended the forest plans of all the Forests/Grasslands covered by the decision; this included the Forest Plan for the Custer National Forest. In reality, the 2001 Tri-State Off-Highway Vehicle Decision re-affirmed the 1987 Forest Plan standard that prohibited cross country travel as noted on page 13, in Forest-wide standard 2. Recreation c. Off-Road Vehicle Use "...restrictions will provide reasonable access for public recreation, hunting and range maintenance/administration, but will confine motorized vehicles to specific roads, trails, or areas identified on a map. Vehicular access off these designated locations will be prohibited." The 2001 Tri-State Off-Highway Vehicle Decision reaffirmed the Forest Plan standard and the off-road use in the Benbow/Picket Pin areas was curtailed. Dispersed camping, parking and use have been allowed and are consistent with Forest Plan direction as well as the 2001 Tri-State Off-Highway Vehicle Decision.</p> <p>Besides amending forest/grassland plans to prohibit cross-country travel, the 2001 Tri-State Off-Highway Vehicle Decision established timeframes for site specific travel planning efforts to begin for those units that did not have a specific travel plan. The Forest had identified the Beartooth Ranger District as a high priority for travel planning and the 2004 scoping document was part of that effort. However, in 2005 the new Travel Rule set the new rules for conducting site specific travel planning efforts. This is noted in the FEIS under the Proposed Action section.</p>		

<b>Subject: Management</b>		<b>Response #: MGMT-16, Dispersed Use</b>
<b>Letter-Comment #:</b> 467-31	The preferred alternative violates the plain intent of the Custer Forest Plan forestwide standard for dispersed recreation, which pledges to emphasize "minimum impact camping":	
<p><b>Response:</b> The Forest Plan forest-wide standard found on page 13, read in its entirety helps to frame the context for dispersed use on the Forest. It reads:</p> <p><b>2. Recreation</b></p> <p>b. Dispersed Use</p> <ol style="list-style-type: none"> <li>1) Dispersed recreation opportunities will be emphasized in response to public needs.</li> <li>2) National Forest System lands will be identified. Signs will be used to guide the public to National Forest System lands. Brochures, maps, and other means will be developed to describe recreation opportunities available, and to emphasize minimum impact camping.</li> <li>3) Dispersed use will be managed to prevent site deterioration. Generally no specific campsites will be established or maintained. Minimum impact camping techniques will be encouraged through public information.</li> </ol>		

<b>Subject: Management</b>		<b>Response #: MGMT-17, Private Property Ingress/Egress</b>
<b>Letter-Comment #:</b> 489-2 and 490-2	Also, it is nice to have an alternative way in and out of our property due to trail conditions. We have not received any notices of change from the County nor the forest service as to the legal access to our property, so these roads are, to our knowledge, still the only legal access for us. I would also like to have year long access via these roads in order to go in and come out of our land.	
<p><b>Response:</b> Alaska National Interest Lands Conservation Act of 1980 (ANILCA) provides statutory authority for access to non-Federal lands surrounded by National Forest System lands located within the boundaries of the National Forest. The Forest Service must allow reasonable access for the reasonable use and enjoyment of private land; however, the access is subject to the rules and regulations of the Secretary of Agriculture. The Forest Service issues a</p>		

**Chapter 5: Response to Comments**

<b>Subject:</b> Management	<b>Response #: MGMT-17, Private Property Ingress/Egress</b>
special use authorization to allow this access and document the rules and regulations.	

<b>Subject:</b> Management	<b>Response #: MGMT-18, Management of Motorized Use</b>
<b>Letter-Comment #:</b> 467-18	4. The Forest Service Should Prepare a Travel Management Plan to Complement the Motor Vehicle Use Map.
<b>Response:</b> Route by route evaluation was completed in the analysis (FEIS Chapter 2, Appendix C, project record) and is consistent with the 2005 Travel Rule. Education and compliance will be the focus of monitoring.	

<b>Subject:</b> Management	<b>Response #: MGMT-19, Roadless</b>
<b>Letter-Comment #:</b> 461-83	(Designation of motorized trails) increases the likelihood that such a route would be allowed to remain in a roadless area, when closure and/or decommissioning may be a preferable option.
<p><b>Response:</b> There are currently 13.6 miles of routes within inventoried roadless areas on the District. The Inventoried Roadless Area section of Chapter 3 provides background on the nature of both existing and proposed motorized routes within inventoried roadless areas of the District, as well as a description of the effects of the alternatives. Alternatives B, C, and B Modified would all reduce the miles of existing motorized routes, as well as the overall miles of motorized routes. All of the action alternatives would convert some existing non-system routes within inventoried roadless areas to system roads. For Alternatives B, C, and B Modified, the converted routes represent ≤0.6 miles, which is primarily for access to an established trailhead.</p> <p>The Forest Service does not believe that the existing or proposed motorized routes in inventoried roadless areas are irreversible or irretrievable, and that there may be additional mitigating circumstances. These circumstances include a strong suspicion that various inventoried roadless area mapping efforts have inadvertently included routes intended to be along the border of an inventoried roadless area rather than just inside the inventoried roadless area, and an elevated potential for mining activities to legally occur in some of the roadless areas which could significantly change the character of the areas.</p>	

<b>Subject:</b> Management	<b>Response #: MGMT-20, Forest Plan &amp; 2005 Motorized Travel Rule Conformance</b>
<b>Letter-Comment #:</b> 161-10	Reduce the number of interior access roads and motorized trails and the total miles of System roads/motorized trails within the NFS Lands; Rationale a. to conform more closely to the Forest Plan and 2005 "Rule" b. to reduce costs of management and maintenance. c. To protect Cultural Resources. d. To enhance wildlife habitat, particularly security cover for deer and bear and provide suitable habitat necessary for the recovery of the elk population in the Pryors. e. To enhance solitude.
<b>Response:</b> The range of alternatives addresses these various resource considerations.	

<b>Subject:</b> Management	<b>Response #: MGMT-21, Route Criteria</b>
<b>Letter-Comment #:</b> 68-4	Forest Service staff have intimated they are keeping these roughest of routes open as a challenge to four-wheelers. I do not see that as a proper criteria for deciding on the Forest's road system.
<b>Response:</b> A route's roughness was not a criterion for deciding whether to include it as part of the National Forest Transportation System. Rather whether a route was needed for the administration and management of the Custer National Forest, as well as natural resource, cultural resource considerations, and if it provided an opportunity as a loop route were the criterion.	

**MISCELLANEOUS**

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-1, Assumptions</b>
<b>Letter-Comment #:</b> 136-4	One impact not considered by the DEIS is the impact from illegal use of OHVs when they are taken off of authorized roads and trails. We know that this kind of thing happens because we see it every time we go to the CNF, especially in the Pryors. There is abundant photographic

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-1, Assumptions
	documentation of this kind of illegal activity. We have to assume that this kind of impact is going to continue and we have to plan for it. We have to plan for the fact that some people are going to break the law, and in our planning we have to arrange the environment so that the impact is contained as much as possible.
<b>Response:</b> Consistent with routine NEPA practices, compliance with laws, regulations, and policies is assumed when analyzing alternatives.	
Although there is no additional funding for implementation of this decision, it is one of the Forest Service’s national priorities set by the Chief. Partnership dollars, grants and volunteer work will likely play a significant role in implementing the selected alternative.	

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-2, Executive Orders – 11644 and 11989
<b>Letter-Comment #:</b> 66-151	We request that the analysis, preferred alternative and decision-making not let Executive Orders 11644 and 11989 interfere with an equitable management of public land for multiple-uses.
411-74	The executive orders are outdated because they are addressing issues that no longer exist (sic) due to the introduction of the 2001 OHV rule and the federal 2005 OHV ruling. These executive orders should be removed from the EIS.
<b>Response:</b> Executive orders issued by the President of the United States provide policy direction to all Federal agencies. The Department of Agriculture conforms its policy to executive orders. The Department has indicated that they do not believe Executive Orders 11644 and 11989 conflict with multiple use management of National Forest System lands. These two executive orders broadly direct Federal land management agencies to regulate OHVs.	

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-3, Executive Orders and the 2005 Motorized Travel Rule
<b>Letter-Comment #:</b> 129-4	The Forest’s Preferred Alternative does not comply with the Executive Orders governing OHV use. All current direction and authority that allow, restrict, and prohibit vehicle use off roads on National Forest lands are tiered from Executive Order (E.O.) 11644, signed by President Nixon in 1972, and modified by President Carter’s E.O. 11989 in 1977. These executive orders should be the guiding principles for all decisions related to OHVs. The orders state that the route designation procedures “will ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands.” In accomplishing this The Pryors Coalition 5 broad goal, the Executive Orders specifically require that the designation of motorized areas and trails shall be in accordance with the following: 1. Areas and trails shall be located to minimize damage to soil, watershed, vegetation, or other resources of the public lands. 2. Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. 3. Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors. 4. Areas and trails shall not be located in officially designated Wilderness Areas. We agree with the strong language above. OHVs should be permitted only where they do not excessively interfere with other recreational uses or damage natural resources. Several sections of the DEIS clearly illustrate that Alternative C would minimize user conflicts; minimize damage to soil, watershed, vegetation, or other resources; and minimize harassment of wildlife and cause less significant disruption of wildlife habitats. Therefore, it is obvious that the current preferred alternative would not meet the Executive Order's mandate.
307-17	The Forest Service is directed by Executive Orders 11644 and 11989 to "ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various users of those lands." Alternative C meets these criteria much better than Alternative B.
307-18	As directed by the Executive Orders, the Forest Service should protect the resources, (wildlife, plants and plant diversity, geological, cultural, and historical) and then determine the appropriate

**Chapter 5: Response to Comments**

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-3, Executive Orders and the 2005 Motorized Travel Rule</b>
	recreational uses that will not exceed the carrying capacity of the landscape.
394-7	The Forest's Preferred Alternative does not comply with the Executive Orders governing OHV use. ... Several sections of the DEIS clearly illustrate the Alternative C would minimize user conflicts; minimize damage to soil, watershed, vegetation, or other resources; and minimize harassment of wildlife and cause less significant disruption of wildlife habitats. Therefore, it is obvious that the current preferred alternative would not meet the Executive Orders' mandate.
461-1	The intent of the E.O. is to minimize the impacts of ORV use on forest resources and other recreationists and neighbors. The EIS must not only disclose and compare the impacts of each alternative, it must provide a plausible reasoning that the decision resulting from the disclosures in fact minimizes those impacts. Simply claiming that impacts were considered and providing cursory rationales for choosing an alternative does not meet the E.O. requirements to minimize those impacts.
461-2	We challenge how these designations can be construed to minimize impacts, as directed by the E.O., and we also challenge that a “trail” that can accommodate vehicles over 50” is really anything other than a road..... Instead, motorized trails that are designated for vehicles over 50” should be called what they are - Maintenance Level (ML) 2 roads - and maintained as such.
461-3	At a minimum, we recommend that the Forest Service provide detailed guidance on what “trail character” means. Otherwise, the Forest Service can indiscriminately convert roads to trails and the ecological impacts of a decaying road will remain unaddressed, and definitely not minimized, as required by the E.O. Second, if the Forest Service insists upon designating any motorized trails open to all vehicles, the effects of these trails should be evaluated the same way a road would be during wildlife and other environmental analysis. To make this process easier and simpler for the Forest Service and to minimize future environmental impacts of these motorized trails, it would make more sense to designate motorized trails that are open to vehicles over 50” as ML 2 roads, which would receive more regular and more stringent maintenance.
461-8	We also believe that there should be one or more alternatives that meets the requirements under EO 11644, as amended by EO 11989, to minimize effects and conflicts. The DEIS states that “[t]he 2005 Motorized Travel Rule is the agency’s implementation of these executive orders,” (DEIS p. 1-10). Simply considering the potential negative impacts for each alternative is not minimizing effects or conflicts, and the Custer NF must provide an alternative that meets the E.O. requirements.
461-15	By not incorporating the zoning approach, the DEIS failed to adequately analyze a full range of alternatives in violation of NEPA, and by not analyzing each route for potential user conflicts the DEIS failed to take a hard look at potential negative impacts in violation of NEPA. Finally, these failures ensure that any action alternative chosen will be in violation of EO 11644 as amended by EO 11989.
467-4	First and foremost, the DEIS' analysis in Chapter 3 fails to link the disclosed impacts to the Forest Service's route designation criteria set forth in section 3 of Executive Order 11644 and 36 C.F.R. § 212.55 or the Forest Service's duty in 36 C.F.R. § 212.5(b)(1) to designate only the "minimum road system needed." Nowhere in the DEIS is there a discussion addressing whether the disclosed impacts in fact meet these route designation criteria and duties.
487-1	Your travel management proposal does not follow Executive orders or direction in your Forest Plan.
<b>Summary of Comments:</b> The DEIS does not meet the direction set forth in the Executive Order (E.O.) 11644, signed by President Nixon in 1972, and modified by President Carter’s E.O. 11989 in 1977.	
<b>Response:</b> The Department of Agriculture produced the 2005 Motorized Travel Rule to be consistent with Executive Orders 11644 and 11989, and to serve as the means to implement the policy direction contained in those Executive Orders. The 2005 Motorized Travel Rule places more emphasis on considering the effects of motorized trails and areas, than of roads. Consistent with the 2005 Motorized Travel Rule, development of the Preferred Alternative specifically included considering effects of trails (there are no areas) with the objective of minimizing effects related to damage to soil, watershed, vegetation, other forest resources, harassment of wildlife, disruption of wildlife habitats, and conflicts between motorized trail use and existing uses. No substantive conflicts between types of motorized trail uses have been identified on a site-specific basis. Appendix C contains specific proposed actions aimed at minimizing effects in the above listed areas, such as the season of use for Meyers Creek and Lodgepole Creek trails, season of use designation on trails in the Pryor Unit, and contingent designation of a portion of Punch Bowl until erosion concerns are	

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-3, Executive Orders and the 2005 Motorized Travel Rule</b>
<p>addressed. In addition, the Preferred Alternative specifically avoided designating certain routes or changed existing season of use designations to minimize impacts to the above listed resources. One example of this was not proposing a motorized route in the bottom of Bear Canyon to avoid adverse effects to riparian and the rich diversity of wildlife. In general, the additional emphasis of minimizing effects on the above listed resources was used not only for proposed trail designations, but also for proposed road designations.</p> <p>Forest Service guidance allows for the designation of three basic types of motorized trails: those that are open to all OHVs, those open to vehicles less than 50 inches, and those open only to motorcycles. Regardless of the type of trail designation, the effects of any designations are evaluated – they are not avoided by designating routes as trails rather than roads.</p>	

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-4, 2001 Tri-State OHV Decision</b>
<b>Letter-Comment #:</b> 66-10	Figure 2.2 and 2.7 on page 14 of Chapter 2 in the 3-State OHV EIS and Decision clearly shows that existing tracks used by motorcycles are to be considered as motorized trails ( <a href="http://www.mt.blm.gov/ea/ohv/Chapter2.pdf">http://www.mt.blm.gov/ea/ohv/Chapter2.pdf</a> ). The evaluation must consider these routes and is in violation of the 3-State OHV agreement.
66-30	We ask that all BLM and Forest Service actions include proper recognition of the agreement behind the 3-State OHV and National Route Designation decisions which allow continued use of the existing networks of motorized roads and trails without massive motorized closures.
387-33	Because your district did not comply with the requirement of the 01 3 State OHV Rule, we believe the proposed closures are therefore arbitrary and capricious.
<p><b>Response:</b> The Custer National Forest has complied with the 2001 Tri-State OHV Decision. The 2001 Tri-State OHV Decision required National Forests in Montana, such as the Custer, to execute a Forest Order that eliminated cross-country vehicle travel, along with posting signs, and adding notices to travel management maps by July 1, 2001. The Custer National Forest completed these steps in June of 2001. The Decision provided for the continued use of existing motorized routes until route specific designations for motorized use was completed. In compliance with the 2001 Tri-State OHV Decision, the Beartooth Ranger District Travel Management Planning effort is the process being used to determine the route specific designations for motorized use.</p>	

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-5, Mitigation by Adding Routes</b>
<b>Letter-Comment #:</b> 66-17	Trail closures in semi-primitive motorized areas represent a significant amount of the total available both forest-wide and area-wide. These are the highest value routes to motorized recreationists and the impact would be significant. This impact is unacceptable unless these routes are mitigated with new routes of equal value.
66-18	The existing level of motorized access and recreation is reasonable alternative and an alternative other than No Action must be built around it. This reasonable alternative should also include mitigation to protect the natural environment and compensate motorized recreationists for the significant cumulative effect of past losses, and enhancement to adequately address the growing need for motorized access and recreation.
66-27	Therefore, the route designation process and travel planning actions must include an effective mitigation process that will meet the requirements of the designated route rule and not put an unreasonable burden on motorized recreationists.
421-27	It would seem the team did not consider means on how to mitigate any foreseeable problems and rather opted for closing it to only OHV use.
<p><b>Response:</b> Alternative A was included as an option that would provide maximum motorized opportunities available with the existing system and non-system routes, which is essentially the existing condition (see the Alternative A description in Chapter 2 for further details). The Forest Service considered various mitigation measures to address resource concerns, such as season of use restrictions, designations contingent upon completing mitigation work, and not designating routes for public motorized use. (See alternative descriptions in Chapter 2 for further details.)</p>	

**Chapter 5: Response to Comments**

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-6, Mental & Physical Health
<b>Letter-Comment #:</b> 66-68	We also ask that the tremendous value of OHV recreation for both mental and physical health benefits (equivalent to jogging) be recognized in the evaluation and used to justify an increase in motorized recreational opportunities.	
<b>Response:</b> All recreational values are recognized in the range of alternatives. The alternatives varied in addition or subtraction of motorized routes in recognition of the variability in motorized and non-motorized recreational values.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-7, Access Points
<b>Letter-Comment #:</b> 386-14	Alt. B has 14 access roads in about 22 miles of perimeter of the west and south FS boundary. Alt. C has eight. The 2005 FS Motorized Rule promotes adequate motor vehicle access to FS land (one per five miles of boundary). Alt. B allows once access point per 1.6 miles. Alt. C allows one per 2.75 miles. So, Alt. B allows excessive motorized access by FS standards, and Alt. C is still allowing nearly twice the access recommended.	
406-10	I believe CNF's legal charge (not to mention budget) is to provide only reasonable motorized access to the forest with a goal of one access point (motorized or non-motorized) per 5 miles of forest boundary.	
<b>Response:</b> The access goal identified in the comment is in the Custer National Forest Land Management Plan and not in the 2005 Motorized Travel Rule. The Plan states, "The goal of providing for public access to and within the Forest is to provide at least one access point per five miles of administrative boundary where there is not adequate access from inside the National Forest System land." The goal does not promote a certain quantity of access routes as a maximum standard or indicate what is excessive.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-8, Inventoried Roadless Areas
<b>Letter-Comment #:</b> 66-104	Based on our experience with past actions and current proposed actions, motorized recreationists will lose significant recreational opportunities and suffer cumulative negative impacts from the Roadless Rule. Therefore, we disagree that this issue is out of scope. We request that the cumulative negative impact of the Roadless Rule, past actions and future actions be considered a significant issue and adequately considered in the document and decision-making.	
461-11	We have identified numerous instances of inadequate analysis in our comments on the DEIS's Affected Environment section. However, in general, the effects of each alternative on the character of Inventoried Roadless Areas ("IRA") were never adequately analyzed. Table 1-2 summarizes the road segments for motorized use in the IRAs for each alternative, but there is no further analysis of potential impacts to IRAs in any other section of the DEIS. This is especially troubling since the preferred alternative allows 300 ft dispersed camping off all motorized routes except two. No information was provided on how enforcement will be directed to ensure prevention of illegal use. This lack of analysis and the decision not to include a section evaluating potential impacts to IRAs is arbitrary and capricious, and in violation of NEPA.	
<b>Response:</b> The effects of designating roads within IRAs have been added to the FEIS and are addressed in the Chapter 3 Inventoried Roadless Area section.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-9, R.S. 2477
<b>Letter-Comment #:</b> 66-48	We request that this planning project include adequate research of the county records and adequate formal consultation and coordination with the county to get their input on RS 2477 routes.	
66-85	We request that these travelways remain open based on; (1) their history of community access, (2) the access that they provide to interesting historical sites, and (3) their importance to community access. We request that the document evaluate all of the issues surrounding RS 2477 including the cumulative negative impact of all past closures of RS 2477 routes which has become a significant impact on motorized recreationists.	
66-86	We request that any routes proposed for closure and in existence before 1976 be considered as having RS 2477 rights-of-way in order to provide citizens with access to public lands.	
<b>Response:</b> The 2005 Motorized Travel Rule exemption for legally documented rights-of-way held by State, county, or other local public road authorities covers rights-of-way under R.S. 2477 that have been adjudicated through the Federal court system or otherwise formally established. However, Congress has placed a moratorium on rulemaking		

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-9, R.S. 2477</b>
concerning recognition of any unresolved R.S. 2477 rights-of-way claims. Identification of unresolved R.S. 2477 rights-of-way in the FEIS would be contrary to the Congressional moratorium and may give the appearance that the Forest Service is trying to establish the validity of R.S. 2477 right-of-way claims.	

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-10, Route Inventory</b>
<b>Letter-Comment #:</b>	
66-87	We request that sufficient background data be collected to quantify the existing conditions in the resource areas of interest. Then, if a motorized closure is enacted, sufficient data should be collected to demonstrate whether or not there was significant improvement to each resource area. If significant measurable improvement cannot be demonstrated, then, in order to be accountable, motorized closure actions should be reversed. In other words, the public needs to know how the decision made, the data on which it was based on including the source, and whether the data was adequate to substantiate the claimed environmental improvements.
74-2	However, we understand that even Alternative A does not include many of these commonly used trails in its inventory - for which our Club provided GPS files. It has been suggested to us that you should include and consider this information in the development of a Travel Plan.
97-1	The collaborative process was flawed in that on the ground routes and trails that was identified by the Magic City 4x4 club and Rimrock 4x4 club in conjunction with Families For Outdoor Recreation were not shown on the maps used for this process. These maps were turned in to the Forest Service by FFOR.
132-1	Trails identified by Families For Outdoor Recreation, Magic City 4 x 4, and Rimrock 4 x 4, were not shown on the map. And these maps were turned into the forest service.
215-3	..the Forest Service ignores dozens of GPS'd and legally used trails because they did not appear in the 1987 mapping. Then, they suggest that Alternative A is an increase in trails when it significantly reduces motorized trails.
412-7	Missed trails continually not mapped even when advised - We have submitted trails to be added to the proposals in 2004 and again during the Collaborative Meetings. These trails have never been presented on the maps nor has their absence been addressed. We were told by the staff at the Collaborative Meetings that the trails we rote in would be addressed and mapped in the DEIS. This didn't happen. The trails in question are in the area and linking trails @2104, 20852, and 2104A1. Why were these trails omitted from the travel planning process each time? It is misleading to tell us to simple draw the roads and note why we are drawing these roads, and it leads to the question of what else was missed during this process?
421-11	Local clubs, have used GPS units to map the trails that are currently used by many groups, which have been turned in to the Forest Service, yet these trails were not in the DEIS, why?
<b>Summary of Comments:</b> The route inventory does not include all the existing routes currently on the ground.	
<b>Response:</b> The Custer National Forest attempted to identify all motorized routes by conducting route inventories during 1999 and 2000. In 2001, the Tri-State OHV Decision and subsequent Forest Order recognized existing unauthorized routes and allowed their use, but prohibited the creation of any new unauthorized routes. Based on subsequent field reviews of the inventory, the Forest has a high confidence level in the inventory. Still, there is potential that routes may have been missed in the inventory and the Forest has accepted any information related to additional routes that may not be in the inventory. No GPS locations of missing routes were supplied to the Forest; all potential missing routes were described verbally or through lines on maps. The Forest has attempted to locate these routes through field investigation, aerial photography, and/or satellite images. In all but one case, the Forest was unable to find the described route or it appeared to be a route already in the inventory.	

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-11, Existing Condition</b>
<b>Letter-Comment #:</b>	
461-10	In our view, the appropriate baseline of existing system routes consists of those routes which have been documented in relevant NEPA analysis. We believe that any routes lacking documentation (including routes which were constructed or came into being before NEPA was enacted) should be analyzed as new unauthorized routes, in recognition of that fact that there is no record of administrative decision or analysis addressing the environmental impacts of motor vehicle use on these routes. To address this issue, we strongly recommend that the Forest Service develop a "documentation" spreadsheet which would supplement the description of the no action alternative, and would eventually accompany the MVUM. This spreadsheet would summarize the NEPA decisions,

**Chapter 5: Response to Comments**

<b>Subject: Miscellaneous</b>		<b>Response #: MISC-11, Existing Condition</b>
		together with other relevant documentation (e.g., formal adoption of road/trail objectives for the route; information establishing consistent maintenance expenditures over time, etc.) supporting the inclusion of each route on the authorized system. We have included a sample spreadsheet to serve as an example. (See Appendix A).
467-6		While establishing a "baseline existing condition" is understandable and important, the Forest Service should establish this baseline only after conducting a comparative analysis with the baseline travel system established by the 1987 Travel Plan. Its the 1987 Travel Plan baseline that provides the legal and authorized planning baseline - not the DEIS' "baseline existing condition." The "baseline existing condition" is most relevant in understanding the existing impacts to the landscape for NEPA purposes but shouldn't serve as the effective starting point for substantive travel designation decisions.
<p><b>Response:</b> There is no legal mandate to use or definition for determining the baseline or existing condition used in travel management planning. Baselines and existing conditions are discretionary measures provided when appropriate to assist in displaying the relative effects or future conditions of proposals. After consideration of several factors, including the guidance associated with the 2005 Motorized Travel Rule and the regulations for implementing NEPA, the Forest determined that it was appropriate to identify the No Action Alternative as the existing system roads on the District, and to allow Alternative A to represent the existing condition given how closely it reflects the motorized routes identified in the inventory.</p>		

<b>Subject: Miscellaneous</b>		<b>Response #: MISC-12, Routes Considered</b>
<b>Letter-Comment #:</b> 124-1		Generally, we believe motorized vehicle travel should be limited to the older-two track roads that existed during the 1980s.
124-2		Where duplication of roads existed from that era, the better tracks from a resource protection standpoint should be legitimized and excess tracks and those contributing to resource abuse should be closed.
307-27		The Forest Service should seriously consider closing all routes not specifically created through a legal process, with the exception of necessary reroutes for administrative purposes.
<p><b>Response:</b> The 2005 Motorized Travel Rule allows both system and non-system routes to be considered for designation for public motorized use.</p>		

<b>Subject: Miscellaneous</b>		<b>Response #: MISC-13, Cumulative Effects – Loss of Motorized Opportunities and Access</b>
<b>Letter-Comment #:</b> 66-1		The continual loss of motorized recreational opportunities is our primary concern. Because of the significant cumulative effect of motorized closures at this point in time, we feel strongly that there can be “no net loss” of motorized recreational opportunities with the Beartooth and Sioux Ranger Districts Travel Management Plans.
66-5		...NEPA is that an agency must consider the effects of the proposed action in the context of all relevant circumstances, such that where “several actions have a cumulative . . . environmental effect, this consequence must be considered in an EIS.” ...The cumulative effect of all motorized closures has been significant and is growing greater every day yet they have not been adequately addressed.
66-16		The action must develop a preferred alternative that mitigates the significant impacts on the public from the loss of motorized access and motorized recreational opportunities from the proposed action and the combined cumulative effect of all other actions in the state.
66-18		The existing level of motorized access and recreation is reasonable alternative and an alternative other than No Action must be built around it. This reasonable alternative should also include mitigation to protect the natural environment and compensate motorized recreationists for the significant cumulative effect of past losses, and enhancement to adequately address the growing need for motorized access and recreation.
66-52		Motorized closures are being enacted incrementally and without adequate disclosure and consideration of the cumulative effects....This trend is being ignored at all levels including the actions listed in Table 2. The plan for this project area does not recognize and address this trend. The forest plan for the Custer National Forest does not adequately recognize and address this trend. The national planning policy does not recognize and address this trend. Therefore, this cumulative effect is being effectively ignored and that failure to notice will result in the ultimate

<i>Subject:</i> Miscellaneous	<b>Response #: MISC-13, Cumulative Effects – Loss of Motorized Opportunities and Access</b>
	loss of any meaningful motorized recreational opportunities and the creation of defacto wilderness from large blocks of multiple-use lands. Facts do not cease to exist because they are ignored.--Aldous Huxley. We ask that this significant negative cumulative effect on motorized recreationists be adequately recognized, evaluated and mitigated at all levels starting with this project.
66-62	Table 2 is a partial listing of projects that have had a negative impact on motorized recreationists. All of these actions and others must be included in the tabulation and evaluation of cumulative negative effects on motorized recreationists....Additionally, adequate mitigation must now be implemented to counter the cumulative negative effects that motorized recreationists have experienced.
66-63	The cumulative negative effects of more restrictive travel plan decisions include the concentration of use on fewer miles of road and trail, such that traffic density is increased and recreation enjoyment is reduced....Travel decisions affecting public lands that restrict motorized recreation in one area may consequently increase motorized use in another where site-specific travel plans are not yet in place. Cumulatively then, this "leapfrog" effect may increase resource damage, create more law enforcement problems, generate discord between motorized and non-motorized recreationists, and make future site-specific travel planning more difficult. This cumulative negative effect must be adequately considered as part of this project.
66-71	We request a corrective action and over-arching mitigation plan that will undo the significant impact that all cumulative motorized access and motorized recreational closures has had on motorized recreationists over the past 35 years. We also request a monitoring program be provided by an unbiased third-party to assure that this correction occurs within our lifetime.
66-79	The magnitude of the cumulative effect of the motorized closure trend must be identified and evaluated as a significant impact on motorized visitors. We request an adequate evaluation of the significant cumulative loss in miles, acres, and quality of motorized recreation and access opportunities within public lands as required under 40 CFR 1508.7 and 1508.25, and guidelines published by the Council on Environmental Quality "Considering Cumulative Effects Under the National Environmental Policy Act". Table 2 is provided as a starting point of the projects that need to be considered as part of that evaluation.
66-80	We request that the trend of cumulative closures, the cumulative negative impacts associated with that trend and the reasonable alternative of maintaining the existing level of motorized access and motorized recreation must be adequately addressed. We also request that the proposed action include an adequate mitigation plan to compensate for the significant impact from the cumulative effect of all past actions that have affected motorized access and motorized recreationists.
66-83	A fair travel management process would start with a comprehensive inventory of all existing motorized routes in use by the public....The cumulative loss of motorized recreation and access opportunities within public lands has been significant. In order to avoid further cumulative negative impacts, we request that the majority of existing motorized routes remain open and the closure of an existing motorized route be offset by the creation of a new motorized route.
66-102	In order to avoid contributing further to the significant cumulative loss of motorized recreation and access, we request that the closure of a motorized trail or access should be offset by the creation of a new motorized trail or access of equal value.
66-107	Additionally, there are millions of other multiple-use visitors who use motorized access for sightseeing, exploring, picnicking, hiking, rock climbing, skiing, mountain biking, riding horses, camping, hunting, RVs, target shooting, fishing, viewing wildlife, snowmobiling, accessing patented mining claims, and gathering of firewood, rocks, natural foods, etc....We request that the cumulative needs of these visitors be accurately quantified and the cumulative negative impacts of closures on these visitors be considered in the decision-making.
66-119	We request that the impacts associated with the significant loss of motorized recreation and access opportunities be adequately addressed in the environmental document and decision-making, i.e. Where will displaced motorized visitors go? And, due to the lack of any reasonable motorized access and recreation opportunities, what will they do? Additionally, we request that an adequate mitigation plan be included as part of this action to compensate for past cumulative negative impacts.
66-120	The cumulative negative effect of not analyzing each road and trail segment is tremendous. We

**Chapter 5: Response to Comments**

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-13, Cumulative Effects – Loss of Motorized Opportunities and Access</b>
	request that the decision-making be based on the individual and site-specific merits of each travelway. Additionally, we request that an adequate mitigation plan be included as part of this action to compensate for past cumulative negative impacts.
66-129	We request that the underlying principle of all new travel management actions be to maintain the existing level of opportunities for motorized visitors. We also request that the document and decision-making; (1) evaluate the cumulative negative effect of past strategies to eliminate motorized recreation opportunities including the conversion of multiple-use lands to all designations of non-motorized areas including pre-Columbian scheme, monuments, wilderness, wilderness study areas, roadless areas; and (2) enact actions that will offset the cumulative negative effect of past strategies to eliminate motorized recreational opportunities.
66-131	The environmental document should consider the following visitor profiles in addition to OHV enthusiasts as motorized visitors who use roads and trails within public lands. People out for weekend drives, sightseers, picnickers, campers, hunters, hiking, rock climbing, target shooters, fisherman, snowmobile enthusiasts, woodcutters, wildlife viewing, berry and mushroom pickers, equestrians, mountain bikers, and physically challenged visitors who must use wheeled vehicles to visit public lands....We request that the significant impact from all cumulative statewide-motorized closures on all of these visitors be included in the environmental document.
66-134	We request that the cumulative negative effects of these policies be thoroughly evaluated so that a reasonable travel management decision is made. The evaluation of cumulative negative impacts should include all associated impacts such as social, economic, cultural, and the recreation needs of motorized visitors.
66-137	The cumulative negative impact of the overwhelming number of proposals has been decision-making that does not provide for the needs of the public and a significant reduction in multiple-use and motorized access and recreation opportunities. We request that this cumulative negative impact be adequately evaluated and factored into the decision-making for this action. Additionally, we request that an adequate mitigation plan be included as part of this action to compensate for past cumulative negative impacts on the public associated with the overwhelming number of NEPA actions.
66-138	Additionally, this cumulative negative effect has lead to the loss of opportunity for motorized recreationists to further the awareness and education of other motorized visitors in areas such as proper riding ethics, safety, and environmental protection. This cumulative negative effect has also reduced the opportunity for motorized recreationists to improve and maintain existing motorized opportunities. This cumulative negative impact includes reduced maintenance of trailheads and trails and reduced ability to undertake mitigation projects to protect the environment and public safety. We request that these cumulative negative effects be addressed in the analysis, preferred alternative and decision-making.
66-142	Additionally, we request that an adequate mitigation plan be included as part of this action to compensate for past cumulative negative impacts associated with inadequate use of education measures in past actions.
66-143	We request that the cumulative negative effect of reduced recreation and access opportunities for motorized visitors within the project area be adequately considered in the document and decision-making.
66-144	We request the evaluation of the cumulative negative impacts from management goals that tend to concentrate visitors to narrow corridors and reduce recreation opportunities for motorized visitors.
66-154	Therefore, the analysis should also evaluate the cumulative negative impacts of motorized road and trail closures and the conversion of multiple-use lands to limited-use lands on fire management, timber management, and firewood gathering.
<b>Summary of Comments:</b> The DEIS must consider the cumulative effects associated with designating motorized use.	
<b>Response:</b> The cumulative effects of travel planning on recreation opportunities was addressed in the Recreation sections of the DEIS and FEIS.	

<b>Subject:</b> Miscellaneous		<b>Response #: MISC-14, Peer Review</b>
<b>Letter-Comment #:</b> 66-95	Therefore, peer reviewed reports and recommendations are mandatory in order to protect the public from personal opinion. We request that an adequate peer review plan and process be used for all impact analyses and include experts that are neutral about motorized recreation.	
<b>Response:</b> Effects analysis has been conducted using best available scientific information and peer reviewed literature (see References). The interdisciplinary team also reviewed literature cited in public comments on the project (project record). The methods used for analysis by each resource specialist are described throughout Chapter 3. The DEIS and FEIS, as well as the project record are available for public review and scrutiny. Factual corrections, errors, omissions brought to our attention through comments (oral or in writing) have been made in the FEIS.		

<b>Subject:</b> Miscellaneous		<b>Response #: MISC-15, Monitoring</b>
<b>Letter-Comment #:</b> 40-18	There should be an effective program for monitoring, evaluation and adaptive management to assure that effects of travel management are identified and management modified where necessary to reduce effects.	
41-11	Finally, no alternative is complete without an ongoing monitoring program to assess the actual impacts of the implemented plan. This process should be explicit in the DEIS for the public to offer comments on as well.	
425-8	Question: How will that monitoring be accomplished? If that monitoring indicates adverse effects under Alternative B-the preferred Alternative if accepted-what then? How will those adverse effects, if any be adjusted? How will the public be advised and how will those adverse effects be reversed? Also, what has been done to date under Monitoring and Evaluation? Nowhere in this DEIS is it indicated that such activity is being done.	
467-19	The Forest Service's largely exclusive reliance on enforcement and education is also dangerous given the DEIS' failure to incorporate any monitoring plan and, instead, to only mention, offhandedly, that "(m)onitoring and evaluation could be used to determine if physical, biological, social, and economic effects of implementing any alternative occur as predicted." DEIS at 2-11. Simply put, monitoring isn't optional: it must be used and a monitoring plan must be provided. 36 C.F.R. § 212.57.	
508-1	The plan needs to specifically address monitoring of these resources no matter the alternative selected.	
<b>Summary of Comments:</b> There should be a monitoring plan for travel management.		
<b>Response:</b> Monitoring has been ongoing, and contributed to the knowledge of issues and concerns that drove alternative development in travel management analysis. Monitoring provided valuable information about cultural, soil, vegetation, water, fish and wildlife concerns, etc. and will continue to do so in the future.		
The responsible agency official must monitor the effects of motor vehicle use on designated roads and trails, consistent with the applicable land management plan (Forest Plan), as appropriate and feasible (36 CFR 212.57). The FEIS Chapter 2 includes Forest Plan direction for monitoring off-road-vehicle use and damage.		

<b>Subject:</b> Miscellaneous		<b>Response #: MISC-16, NAAQS</b>
<b>Letter-Comment #:</b> 40-24	...we recommend that the FEIS identify Travel Plan consistency with NAAQS and other applicable air quality requirements.	
<b>Response:</b> Air quality across the District is considered good to excellent. All areas within and immediately adjacent to the District currently meet all state and federal air quality standards. The nearest area of non-attainment is Laurel, MT (approx. 30-50 miles north/northeast) and concerns SO(2) levels. Implementation of any alternative is expected to maintain air quality conditions due to 1) good dispersion characteristics across the District, 2) low inversion potential across the District, 3) low emissions from vehicles relative to other potential sources, and 4) reduced route miles open to motorized vehicles under all alternatives from existing conditions. Compliance with state and federal air quality standards would occur under all alternatives.		

**Chapter 5: Response to Comments**

<b>Subject: Miscellaneous</b>		<b>Response #: MISC-17, People with Disabilities and Aging Populations</b>
<b><u>Letter-Comment #:</u></b> 66-22	The evaluation must adequately consider the growing popularity of motorized recreation, the aging population and their needs for motorized access, and the increased recreation time that the aging population has and looked forward to enjoying public lands in their motor vehicles.	
66-106	We request that the travel management process seek out and document the needs of all motorized visitors including those who traditionally use the primitive roads and trails, plus the handicapped, elderly, and physically impaired as required under 40 CFR 1506.6	
66-118	We request that the proposed action adequately address and comply with the recommendations of the Study conducted to address P.L. 105-359 including items 1 and 7.	
66-124	We request that all the roads, trails, and features of interest be analyzed for the access and recreation opportunity that they provide for handicapped, elderly, and physically impaired visitors.	
155-10	Beartooth District interdisciplinary team should use all means possible to insure the OHV recreational experiences by the aging and disabled population are met by leaving all possible roads and trails open in the limited amount of acres available for motorized use in the Pryor Mountain range.	
232-9	..allow official possessors of "disabled" status access to public lands on OHVs, but with speed restrictions commensurate with that of the rest of use equestrians, equestriennes, hikers, and the native critters.	
291-1	I am unable to walk great distances and use the Benbow road to access the area I wish to hunt or fish. I do not own an ATV and can no longer ride on horse back. If the road is closed I would no longer be able to enjoy the area.	
387-22	Any more loss of multiple use trails in Montana will severely impact the aging population of the entire U.S. and this action is completely unnecessary. The FS must consider this very large population and their needs.	
396-3	...these restrictions amount to blatant discrimination against the partially disabled and elderly, who are physically incapable of accessing the forest by other methods.	
387-22	Any more loss of multiple trails in Montana will severely impact the aging population of the entire US and this action is completely unnecessary. The FS must consider this very large population and their needs.	
411-40	Access for all disabled persons and families with young children is an important aspect of the Custer Partnership Agreement. Access ensures the continued enjoyment for everyone, regardless of his or her physical abilities. It is important to create access areas for those who are unable to enjoy public lands through their own mobility or the people they are caring for. As people age, many face physical limitations but still continue wanting to use public lands and reasonable and appropriate accommodations must be made for the many levels of individuals.	
<b><u>Summary of Comments:</u></b> There should be special access considerations for visitors with limited mobility or disabilities.		
<b><u>Response:</u></b> As indicated in Section 1.4.2.2 of the DEIS, special provisions aimed at providing people with disabilities motorized opportunities not available to all forest users have not been included in this proposal. In the comments and responses on the 2005 Motorized Travel Rule published on November 9, 2005 in the Federal Register, the agency states, "Under section 504 of the Rehabilitation Act of 1973, no person with a disability can be denied participation in a Federal program that is available to all other people solely because of his or her disability. In conformance with section 504, wheelchairs are welcome on all National Forest System lands that are open to foot travel and are specifically exempt from the definition of motor vehicle in § 212.1 of the final rule, even if they are battery-powered. However, there is no legal requirement to allow people with disabilities to use OHVs or other motor vehicles on roads, trails, and areas closed to motor vehicle use because such an exemption could fundamentally alter the nature of the Forest Service's travel management program (7 CFR 12e.103). Reasonable restrictions on motor vehicle use, applied consistently to everyone, are not discriminatory". This concept also applies to providing special provisions for aging populations that may have limited mobility.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-18, Visitor Use Data
<b>Letter-Comment #:</b> 66-31	The visitor use data cited above is based on a percent of the total population. However, the percent of the total population visiting our public lands is a fraction of the total population. Public lands should be managed for those people that actually visit them. We request that this adjustment be made in this evaluation.	
66-40	The agency needs to emphasize data and real observations such as ours to establish public need and resources allocation versus paid representatives, attorneys, and form letter comments sent in by non-motorized groups because they are not an indicator of actual visitors to the project area. We ask that the evaluation and alternative development carefully consider the true needs of the public for multiple-use recreational opportunities as demonstrated by the references cited above and implement recreation resource allocation based on the large number of visitors that enjoy multiple-use and motorized recreational opportunities and the relatively small number of wilderness visitors.	
74-1	We believe more accurate use studies should be completed prior to restricting access to what we have experience as the primary users of the Pryors - motorized users.	
421-14	This survey is not an accurate representation of who uses the Custer! ... Can one survey be enough to correctly summarize the usage of each user group for the analysis's used in the DEIS. ...By talking with groups in our Partnership we think the Ratio should be 1 hiker or walker in motorized areas to 20 OHV users.	
<b>Summary of Comments:</b> The visitor use data used for the analysis is not an accurate representation.		
<b>Response:</b> NEPA requires the use of the "best available" information when preparing an environmental analysis, which included visitor use data. The Forest identified and used the best available information in identifying use levels and trends for this analysis, including multiple studies conducted at varying geographic scopes. The geographic areas included the Forest, Greater Yellowstone, and Northern Rocky Mountains.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-19, Increase in OHV Use
<b>Letter-Comment #:</b> 421-15	The Forest Service has not addressed the issue of the increase in OHV users in the last 10 years.	
<b>Response:</b> Increases in OHV use are included in the cumulative effects analyses in the resource sections of Chapter 3.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-20, Notice of Intent
<b>Letter-Comment #:</b> 461-84	This rule clearly states that the scoping period will begin after the publication of an NOI to prepare an EIS, and that the agency shall invite the participation of interested parties; the process leading up to the NOI's publication can be considered pre-scoping.	
<p><b>Response:</b> A summary of public involvement and participation efforts is described in at the beginning of FEIS Chapter 2 (as well as in the DEIS). Forest Service policy for conducting scoping applies to all proposed actions which require environmental analysis; it is not limited to the preparation of an environmental impact statement (EIS) (FSH 1909.15, Chapter 10, section 10.3, and chapter 30, section 30.3). The purpose of scoping is to identify early-on the scope of issues to be addressed and for identifying significant issues related to the proposed action. Scoping for the Beartooth Ranger District Travel Management proposal was begun January 30, 2004 and planned to close May 1, 2004. The scoping period was extended to September 1, 2004 because of intense public interest and the public's desire to examine on-the-ground the proposed action. The Forest Service determined in July 2007 to prepare an EIS for the Beartooth Ranger District Travel Management Proposal and promptly filed a Notice of Intent (NOI) to prepare an EIS in the Federal Register (72FR40829). This is consistent with the CEQ regulations at 40 CFR 1501.7 regarding scoping and agency polices as provided for in §1507.3.</p> <p>Public meetings were conducted in several of the communities adjacent to the Beartooth Ranger District in 2004 following the issuance of the scoping document. Public meetings were also held in some of the same communities to discuss process changes as a result of the issuance of the 2005 Motorized Travel Rule. In early 2007 several collaboration meetings were conducted to provide opportunities for the public to hear various individual and group opinions, explore areas of common ground, and provide resource and regulatory information. No specific collaborative alternative was developed as a result of those meetings; however, some points of agreement were reached and are disclosed in Chapter 2 in the table Road and Trail Points of Agreement Identified During Collaborative Meetings. The</p>		

**Chapter 5: Response to Comments**

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-20, Notice of Intent</b>
NOI identified that when the DEIS was distributed, it would be available for a 45 day comment period.	

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-21, Non-System Routes</b>
<b>Letter-Comment #:</b> 461-6	Unfortunately, each action alternative adds non-system routes to the existing system. These non-system routes may have been created in violation of 36 CFR 261.15(h) which states, “[i]t is prohibited to operate any vehicle off National Forest System, State or County roads: (h) [i]n a manner which damages or unreasonably disturbs the land, wildlife, or vegetative resources.” In order to have an adequate range of alternatives, the DEIS should have developed an alternative that does not add non-system routes to the existing system.
<b>Response:</b> The existing National Forest system roads and trails on the District do not entirely meet the administrative, utilization, or protection needs of the District. For example, several roads in campgrounds, administrative sites, and to access recreation residence tracts are not currently identified as system routes. Consequently, an alternative that does not add any non-system routes to the system is not reasonable.	

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-22, 36 CFR 212.5(b)</b>
<b>Letter-Comment #:</b> 461-7	We feel there should be one or more alternatives that meets the requirements of 36 CFR 212.5(b)(1) that responsible officials “must identify the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands;” and also meets the requirements of 36 CFR 212.5(b)(2) that responsible officials “identify the roads on lands under Forest Service jurisdiction that are no longer needed to meet forest resource management objectives and that, therefore, should be decommissioned or considered for other uses, such as for non-motorized trails.”
461-76	In this process the Custer-Beartooth District should be determining both the minimum roads system, including identifying roads for decommissioning, in addition to designating motorized trail needs. This includes utilizing a full roads analysis that includes maintenance level 1-5 roads. Travel Management planning direction, as found in the regulations and agency directives, includes the entire motorized travel system and the process must provide for a comprehensive transportation plan that applies both Subparts A and B of the Rule.
461-78	Additionally, the road designations required under § 212.50 must also “be consistent with the applicable land management plan. 70 Fed. Reg. at 68268. Consequently, the minimum road system (subpart A) must be determined in concert with the process of designating a motorized vehicle system (subpart B) in order to assure conformity with applicable Forest Plans, and to comply with the objectives of both the TMR (36 CFR § 212 et seq.) and Forest planning rules (36 CFR § 219 et seq.). Initiating subpart B independent of the minimum road system may conflict with the applicable Forest Plan’s resource management objectives in regards to (1) environmental objectives for ecosystem sustainability such as road density standards, wildlife habitat, species diversity, soils, watersheds; and (2) fiscal resource objectives, such as economic sustainability. 36 CFR 219.10(a)(b).
461-79	Science-based assessments are needed to address the specific criteria for roads designation under section 212.55, and are required for the minimum road system determination under section 212.5. In addition, this roads analysis must include all maintenance level roads, not just ML 3, 4 and 5. The DEIS should provide an appendix or reference a project file that demonstrates how the complete roads analysis was used to determine the minimum road system. We look forward to seeing this information in the Final EIS. A comprehensive science-based determination of a minimum road system must be implemented in coordination with the motorized use designation process to assure the travel plan meets applicable Forest Plan’s resource management objectives.
461-80	Accordingly, failing to implement subpart A and subpart B as a comprehensive and unified regulatory scheme will lead to likely conflicts with Forest Plan economic objectives. The maintenance of unnecessary roads that are designated prior to the determination of a minimum road system will result in the unnecessary wasting of fiscal resources. The FS requires the minimum road analysis to “reflect[s] long-term funding expectations. 36 CFR 212.5. If roads are first designated, maintained and then later closed once the minimum footprint is determined, the result will be conflict with Forest Plan fiscal management objectives, which must mandate fiscal sustainability. 36 CFR 219.10(a).

<b>Subject: Miscellaneous</b>		<b>Response #: MISC-22, 36 CFR 212.5(b)</b>
461-81	In conclusion, the Beartooth District must necessarily initiate a forest-wide travel analysis before a final decision is made. We request to receive a copy of that travel analysis. This analysis includes the identification of a minimum road system as required under Subpart A, integrated with the designation of roads and trails, pursuant Subpart B. Failure to determine the minimum road system analysis needed to administer the National Forest System lands, in concert with designating roads and trails for motorized use, compromises the agencies purpose: to determine the minimum transportation system necessary to provide “safe and efficient travel”; and the “administration, utilization, and protection of NFS lands. See 36 CFR 212.5(b); 70 Fed. Reg. 68264-65.	
467-7	However, the DEIS does not appear to contain the required science-based Roads Analysis which, as a connected and cumulative action, should be included, at the least, as an Appendix and made publicly available, if not considered through the NEPA process itself.	
<p><b>Response:</b> This travel management planning process is intended to result in identification of the minimum road system necessary to meet the utilization (including recreation), protection, and administration needs of the District. Consistent with 36 CFR 212.5(b)(1), this process has involved the “science-based roads analysis” and “broad spectrum of interested and affected citizens, other state and federal agencies, and tribal governments” necessary for determining the minimum road system needed (see Chapters 2 and 3 of the FEIS). Chapters 1 and 3 identify consistency with the Forest’s land management plan and other statutory and regulatory requirements. Appendix C and Chapter 3 disclose measures proposed in Alternative B Modified to minimize adverse resource impacts and disclose the long-term funding expectations.</p> <p>This process has also been used to identify those system roads no longer determined to be needed, by alternative, to meet forest resource management objectives at this time consistent with 36 CFR 212.5(b)(2). Appendix E provides a list those routes that are potentially suitable for decommissioning. An analysis was also conducted to determine if these routes were suitable for non-motorized trails, which is contained in the Project Record.</p>		

<b>Subject: Miscellaneous</b>		<b>Response #: MISC-23, Private Inholding Access</b>
<b>Letter-Comment #:</b> 411-36	Access for grazing leases and solving user conflict should be a higher priority for all involved parties. Roads and trails leading to private land holdings, such as cabins, should be granted and access to these areas leading up to private property should be facilitated.	
421-4	Access for grazing leases and solving user conflict should be a high priority for all involved parties. Roads and trails leading to private land holdings, such as cabins, should be granted and access to these areas leading up to private property should be facilitated.	
<p><b>Response:</b> Alaska National Interest Lands Conservation Act of 1980 (ANILCA) provides statutory authority for access to non-Federal lands located within the boundaries of the National Forest. The Forest Service must allow reasonable access for the reasonable use and enjoyment of private land; however, the access is subject to the rules and regulations of the Secretary of Agriculture. The Forest Service issues a special use authorization to allow this access and document the rules and regulations.</p>		

<b>Subject: Miscellaneous</b>		<b>Response #: MISC-24, Range of Alternatives</b>
<b>Letter-Comment #:</b> 66-4	Therefore, we request that the project team formulate a wide range of alternatives including at least one Alternative that maximizes motorized recreational opportunities in the project area and addresses the following: <ul style="list-style-type: none"> <li>• The project team must formulate at least one alternative that emphasizes OHV use in Roaded Natural and Semi-Primitive Motorized opportunity settings for recreation.</li> <li>• The pro-recreation alternative should strive to provide for the current and future demand for OHV recreational routes.</li> <li>• Alternatives should include areas where OHV trails can be constructed and maintained when demand increases.</li> <li>• Where appropriate, the agency should use this process to analyze the impacts of any future route construction and include those in the decision.</li> <li>• Direction for the required process to construct new routes should be incorporated into each alternative.</li> <li>• At least one alternative should maximize the ability to construct new sustainable trails to meet the current and future need.</li> <li>• The project team should develop management alternatives that allow for proactive OHV management.</li> <li>• All alternatives should include specific provisions to mark, map and maintain designated roads, trails and areas in cooperation with OHV users.</li> <li>• All alternatives should include direction to engage in cooperative management with OHV groups and individuals.</li> </ul>	

**Chapter 5: Response to Comments**

<b>Subject: Miscellaneous</b>		<b>Response #: MISC-24, Range of Alternatives</b>
66-21	The scope of the project must address both existing routes and new construction. This is necessary and reasonable because a certain percentage of the existing routes are likely to be closed. Putting a sideboard on the project scope that prevents the evaluation and creation of any new trail segments also eliminates the opportunity to mitigate the overall level of motorized closures. This approach, if pursued, would preclude the evaluation of a reasonable alternative and also preclude any opportunity for mitigation and enhancement. Therefore, limiting scoping of the project to existing routes only would produce a significant built-in disadvantage for motorized recreationists, i.e., the overall number of motorized routes are destined to be reduced and nothing can be considered to enhance existing routes and to mitigate the overall loss to motorized recreationists.	
67-1	None of the action alternatives adequately meet this purpose and need with respect to motorized opportunities.	
67-7	“Motorcyclists could expect to have opportunities to ride in both units, but would not find opportunities for single track experiences.” This is not a reasonable alternative or solution to a very significant need in the project area.	
307-2	The Forest Service did not consider a full range of alternatives. Lacking is an alternative that severely limits motorized traffic in the District, especially in the Pryors Unit. ...There should have been an Alternative with 3/4 non-motorized to offset the 3/4 motorized in Alternative A.	
396-21	NEPA guidelines require that the Forest Service fully consider all options with regards to travel planning, so why has the CNF not presented an option that significantly expands motorized opportunities?	
438-2	The future need for additional OHV opportunities recognized by Forest Service Chief Dale Bosworth's comments in 2004 and as noted on page 3-21 "lack of quality opportunities", was not evaluated in the DEIS. The range of alternatives introduced did not present an alternative with this future need or with additions to the existing routes. The development of a wide range of alternatives with the construction of additional sustainable routes, both motorized and non-motorized is a function of the planning team.	
<b>Summary of Comments:</b> The DEIS is not have an adequate range of Alternatives.		
<b>Response:</b> The scope of the proposed action was refined after considering multiple factors such as the 2005 Motorized Travel Rule and the Chief’s timeline commitments. Through these considerations, the Forest determined that road and trail construction would be outside the scope of the project. This does not preclude route construction outside of this process, or identification of construction as a mitigation measure if significant effects are identified that warrants this type of mitigation. However, the analysis did not identify significant effects that warranted proposing construction of routes as a mitigation measure. Appendix E outlines opportunities for some route construction, in response to public comment that might be explored in the future.		
The range of alternatives include Alternative A which was intended to represent an emphasis on motorized opportunities, and Alternative C which was intended to represent a reduced emphasis on motorized opportunities. These, when combined with Alternatives B and B Modified, represent a reasonable range of alternatives. Reasonable alternatives must be viable and implementable, and cannot be speculative to be consistent with NEPA.		

<b>Subject: Miscellaneous</b>		<b>Response #: MISC-25, Consistency with BLM</b>
<b>Letter-Comment #:</b> 421-2	Coordination between the Forest Service and the BLM is extraordinarily important to ensuring continuity of roads, trails and services. If a trail or a road is open on one side of a managed land, it should also be open on the other side of the managed land.	
<b>Response:</b> The Forest has worked with the Bureau of Land Management on consistency in route designation, season of use, and identification of loop opportunities in an effort to enhance recreation experience and minimize enforcement issues related to route designations that stop abruptly at jurisdictional boundaries.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-26, Permitted Use
<b>Letter-Comment #:</b> 230-2	The fact of the matter is that cattle are allowed in much of this area and the roads are used to maintain this practice. Closing the roads will create a situation where only a privileged few get to enjoy the mountains without encumbrances. People complain private ranches already enjoy an unfair advantage when it come to hunting wildlife and banning roads would only favor the ranches.	
<b>Response:</b> Alternative B and B Modified would each provide approximately 8.6 miles of administrative use only routes that are specifically associated with permits, such as access for range improvements, transmission lines, etc. Alternative A would provide slightly less than this, and Alternative C slightly more. Given the minimal number of miles involved, that fact that permittees are only authorized to use these routes to conduct authorized activities, and the fact that the routes are available for non-motorized use, it is reasonable to conclude that permittees have not been provided extraordinary opportunities not available to the general public.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-27, Route #2014 (Benbow-Stillwater)
<b>Letter-Comment #:</b> 482-2	Benbow-Stillwater road is a loop trail and should be remain open to motorized use.	
<b>Response:</b> The Forest Service has been directed to avoid designating routes for public use if there is no legal right-of-way to access it. The Forest Service has no legal right-of-way to access many portions of the Benbow-Stillwater Road (#2014) and therefore has not designated those portions for public motorized use.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-28, Convert to Motorized Trail
<b>Letter-Comment #:</b> 66-6	All roads to be closed to full-size vehicles should be converted to atv routes. This is a reasonable alternative for all existing roads.	
<b>Response:</b> System roads that were not proposed for public motorized use designation in Alternative B and B Modified were identified due to specific reasons, including concerns related to cultural, water, and soil resources; to reduce risk of vandalism to facilities; there was no legal right-of-way to the route, the route was parallel to another route; or the route otherwise had little motorized recreational value (i.e. route was short, steep, etc.). Designating them for less than 50 inch vehicles would not resolve these concerns. Alternative A proposed to designate most existing routes, except for a limited number due to special circumstances. There is no real opportunity to identify any additional routes for motorized use. Alternative C represents an emphasis on less motorized recreation activities. Designating system routes not designated for public motorized use would be counter to the premise of the alternative.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-29, National Historic Preservation Act
<b>Letter-Comment #:</b> 461-23	An alternative that fully protects cultural and archaeological resources should be fully evaluated and the likely environmental consequences of not limiting motorized access should be fully disclosed.	
<b>Response:</b> All action alternatives would, by design, meet the legal requirements associated with National Historic Preservation Act for cultural resources by following the Washington Office protocol. See the Project Record for the Washington Office protocol.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-30, Route #20951, #2091T, #20162
<b>Letter-Comment #:</b> 155-17	Routes 20951, 2091T, and 20162 are identified on the Alternative A map have not been offered a rational for closure in the DEIS and yet are not shown on the Alternative B map. Unless meaningful rationale for closure of these routes by the interdisciplinary team can be made they should remain a part of the travel plan for the present and future enjoyment of all motorized users.	
<b>Response:</b> Routes such as the three mentioned in this comment are non-system routes. They were not proposed to be converted to system roads in Alternative B. Converting non-system routes to system roads is an action. All such actions are analyzed in the EIS. Conversely, there is no action associated with not converting a non-system route to system road. Rationale for not converting non-system routes to system roads are contained in the project record. In this case,		

**Chapter 5: Response to Comments**

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-30, Route #20951, #2091T, #20162
there were heritage concerns related to each of these routes that led to the determination to not propose converting them to system roads.	

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-31, Rationale for Preferred Alternative
<b>Letter-Comment #:</b> 91-2	One could look in vain for any DEIS information that supports the designation of B as the Preferred Alternative. The Forest Service must, of course, weigh the interest of all users in developing policies, but is also has a mandate to protect the resources under its management. If you keep this in mind, it is hard to see any reason for supporting an option other than Alternative C. In fact after review the DEIS, I find the choice of B as the preferred option mystifying. If there is additional information that was used in this decision but someone left out of the DEIS, I would appreciate the chance to review it.
124-11	Alternative B was selected as the preferred Alternative. Most of the objectives and management goals stated in the travel plan do not support this designation, but rather point to Alternative C as the most desirable. Consequently, we believe selection of Alternative B is contrary to NEPA requirements.
129-3	A third, and very serious, concern of the Pryors Coalition is that the Forest’s choice of Preferred Alternative is not supported by the thorough and detailed analysis done by the Forest’s specialists for the DEIS. The Forest identified eleven significant issues to be considered in the decision. In issue after issue the data show that Alternative C is better than Alternative B. We did not find that the Forest Service’s analysis of any of the identified significant issues supported the choice of Alternative B. (See details in Part III.)
163-3	Where is the science and logical analysis that directs the Forest to choose Alternative B for the preferred Alternative? I'm afraid the meager sentence on p. 2-11 that states "Alternative B stood out as the preferred" Alternative based on Responsible Official and interdisciplinary team deliberations." does not provide any reason or logic to explain how you arrived at this decision.
163-4	In the Economics section, Table 3.3 says 2.9% of users are OHV users and 40.2% are hikers and walkers. Why would Preferred Alternative B propose 63-66% of the Pryors be motorized in light of these demographics?
345-2	DEIS statistics hardly support Alternative B....Indeed a neutral observer would be hard-pressed to find any supporting argument for wheels other than indulgence in personal pleasure.
394-8	A very serious flaw in the DEIS is that the range of alternatives analyzed is blatantly inadequate and one-sided. This is obvious in table 3-16 which shows EVERY alternative considered designates the majority of the Pryors unit landscape for motorized use. The "best" Alternative C is still 53% motorized. The data in the DEIS (Table 3-3) shows only 1.6% of users of Custer National Forest identify OHV use as their primary activity.
394-10	Finally we must state our deep concern that there is no explanation in the DEIS for how the Forest chose Alternative B in spite of the clear evidence in the DEIS that Alternative C is better for the resources, and is more consistent with the data on user preference. We believe that such an explanation is required.
413-4	To me, your own findings of the eleven significant issues you identify suggest to me Alternative C is a better choice than Alternative B, your preferred alternative. Then why choose Alternative B?
416-1	I do not believe the Preferred Alternative B represents responsible forest management for the Pryor Mountains. The difficulty begins with the inadequate range of Alternatives that was analyzed in the DEIS. The Forest compromised between a moderate Alternative C and a radical Alternative A. This perception is supported by numerous statistics in the DEIS. I will only cite here the Forest’s characterization of Alternative C as “half... in motorized settings”. The other alternatives are even more motorized.
416-2	It is very puzzling that in spite of repeated evidence in the DEIS that Alternative C is better, Alternative B was chosen as the Preferred Alternative - and no reason was given. It makes one wonder what the hidden agenda is. Explanations for the unsupported choice of Alternative B have included references to unspecified “trade offs”. The public needs to be told what the “trade offs” are so we can comment on them. They are not in the DEIS....None of the issues analyzed

<b>Subject: Miscellaneous</b>		<b>Response #: MISC-31, Rationale for Preferred Alternative</b>
		support the choice of Alternative B over Alternative C. I and I suspect the wildlife, consider the fact that Alternative C has 40% more core wildlife habitat than Alternative B (approximately 8000 acres more), and nearly twice that of Alternative A to be quite significant. How can the Forest not consider this difference significant enough to strongly influence the choice of Preferred Alternative?...Isn't it the task of the DEIS and public comments to help determine which alternative is better or best. The public (and the DEIS) should not be required to show why an alternative chosen, for unstated reasons, must not be chosen.
425-4		Overall it appears that your own analysis supports Alternative C as the Preferred Alternative. Why then propose that Alternative B is the Preferred Alternative?
425-20		If disparate agencies-state and Federal-- see that motorized issues are increasingly a problem, why do you prefer Alternative B when Alternative C "provides the most protection for resources on public lands (page3-17.)
425-21		How much value did you place on the results of those meetings when you wrote the Alternatives? If there were no substantive points of agreement, how did you formulate Alternatives, particularly Alternative B and how do you expect to arrive at any substantive agreement?
483-7		Finally we must state our deep concern that there is no explanation in the DEIS for how the Forest chose Alternative B in spite of the clear evidence in the DEIS that Alternative C is better for the resources, and is more consistent with the data on user preference. We believe that such an explanation is required.
<b>Summary of Comments:</b> Why is Alternative B your preferred alternative?		
<b>Response:</b> The Forest Service is required to consider more than just impacts to natural resources. Consideration must also be given to recreational/social issues. Alternative B was identified in the DEIS, and Alternative B Modified in the FEIS, based on information from the analysis which indicated they would provide a wide range of recreation access opportunities, while still providing for the sustainability of natural and cultural resources in the project area.		

<b>Subject: Miscellaneous</b>		<b>Response #: MISC-32, Planning Horizon</b>
<b>Letter-Comment #:</b> 124-6		The ten year planning horizon of the proposed plan does not appear to be realistic. We believe 20 years should be the term of the plan.
129-1		A ten year planning horizon is simply unrealistic. The 1987 Travel Plan has been in effect for twenty years and counting. The first assumption should be that the new travel plan will be in effect for just as long. In any case impacts on ecosystems and landscapes last for far longer than ten years. Responsible land management planning must have a much longer vision.
421-21		The number of user's are climbing each year, yet there is no plans, nor any plan of action to accommodate the number of users, both motorized and not motorized.
425-1		YVAS chapter members disagreement with this Travel Plan begins with this question: Why has it taken twenty-years for you to formulate district wide travel planning? On page 1-2 you say in 1.2, "District-wide travel planning was last addressed in 1987"; then on page 3-1 you say, "For temporal scope, a ten year time frame for project implementation is used."
425-25		This notion that something can be fixed or that the original ecosystem can be restored in the next ten year "Plan", is extremely short sighted and is one of the basic if not the basic fault of this Travel Plan DEIS.
<b>Response:</b> First, this planning effort is not intended to result in a specific, long-term plan such as the 1987 Travel Management Plan. Rather, the 2005 Travel Management Rule sets the stage for modifying motorized travel designations annually by requiring that new maps be printed every year that reflect any route changes identified since the last printing. There is no plan to revisit travel management planning on a District-wide scale again, rather adjustments would be made annually. A 10-year time was selected for analyzing effects of the proposed changes based in part on the above information. In addition, the interdisciplinary team recognized that motorized use and equipment has changed significantly in the past 10-years. This suggests that it may change substantially over the next 10 years. The interdisciplinary team determined that the reliability of assessing effects beyond 10 years was questionable given this information.		

**Chapter 5: Response to Comments**

<b>Subject:</b> Miscellaneous		<b>Response #: MISC-33, Route #2013 (Graham) &amp; #2850 (Stockman Trail)</b>
<b>Letter-Comment #:</b> 129-16	The map of Alternative C in the DEIS has an error showing both Graham Trail (#2013) and Stockman Trail (#2850) as open to motorized use. Only one of these should be open. Table C-3 in the DEIS shows only one of them open.	
425-18	The map for alternative C shows both Graham Trail (#2013) and Stockman Trail (#2085) open for motorized use. However Appendix C: Alternative Details by Route (page 26) indicates only one of these two is open to motorized travel in Alternative C. We do not want both of these parallel roads to the same place "open." We have no strong commitment to which one of the two routes is motorized. The Forest's choice of Stockman Trail in Alternative B is acceptable.	
<b>Response:</b> Both routes were included in Alternative C based on the alternative suggested by the Pryors Coalition and commenters supporting the Coalition's alternative. Table C-3 and the Alternative C map in the DEIS are accurate. The table reflects the <i>actions</i> associated with Alternative C. Because Graham Trail and Stockman Trail are already system roads, there are no actions necessary to make them system roads, and therefore they do not appear in Table C-3.		

<b>Subject:</b> Miscellaneous		<b>Response #: MISC-34, Route #2850, 2850B, &amp; 2013</b>
<b>Letter-Comment #:</b> 68-30	I recommend keeping both Graham and Stockman Trails open. Graham Trail is the preferred route up the mountain from the southwest corner. This road has fewer limestone steps than Stockman Trail and is easier on SUVs and trucks.	
97-4	Route #2013, #2850 and 2850b are needed to disperse motorized use, these routes are existing, and have existed for years, they need to be allowed for different routes as they each have their own character and experience, just like hiking on a different ridge going to the same peak gives.	
132-5	Route 2013, 2850 and 2850B should be left open to keep each of these trails from being over crowded.	
<b>Response:</b> Roads #2850 and #2013 are both identified as open for public motorized use in Alternative B Modified. Route #2850B is a .75 mile long cut-off that parallels another route for its entire length. This route is not likely to contribute meaningfully to distributing motorized use, and was not proposed to be designated for public motorized use in Alternative B Modified.		

<b>Subject:</b> Miscellaneous		<b>Response #: MISC-35, Dispersed Vehicle Camping</b>
<b>Letter-Comment #:</b> 40-20	It would be helpful and appropriate to identify and designate camping sites that avoid sensitive areas, and/or to encourage camping or concentrated public use in areas that are more resilient and can more easily recover from impacts and/or accommodate public use with less impacts.	
66-46	In general there is a very high demand for camp sites and especially dispersed camp sites. If a dispersed camp site is closed, then we request that the closure be mitigated by creation of new camp sites on at least a 1:1 basis in order to avoid a significant cumulative effect on the public of too few camp sites.	
68-50	In summary, except for the pillage of archeological sites, I am not alarmed about the 600 foot swath for dispersed vehicle camping in the Pryors; however, the potential for damage exists. If the Forest Service stays with the 300 feet on either side of the road rule, then there is an obligation to patrol roads in the Pryors with the thought of closing dispersed campsites before they become trashed. Well, dispersed campsites should be patrolled anyway.	
129-21	We do have concerns about where vehicles are driven and parked by campers. The impacts of such driving and parking will increase as the number of users increases over the lifetime of this Travel Plan. Much of the vegetation and soil of the Pryors is fragile – including cryptobiotic soils and cushion plant communities. In some situations recovery from damage caused by the passage of a single 4WD vehicle could take several decades. For this reason we are concerned about the blanket application of the “300-foot rule” to all motorized routes. In principle this means that a 600-foot-wide corridor along every road -- over 72 acres per mile of road -- is vulnerable to vehicle damage. This “300-foot rule” also significantly increases the area susceptible to introduction of noxious weeds. Generally, most people would not be greatly inconvenienced by parking their vehicle beside the road and carrying their sleeping bag etc. a short 300 feet. Of course they could camp only 100 ft from the road, or alternatively carry their gear 600 feet, without being tempted to drive all the way. The Pryors Coalition 11 There may be places and routes in the Pryors where driving 300 feet to camp will not cause inordinate damage. We note	

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-35, Dispersed Vehicle Camping
	that the 2005 Travel Management Rule says that “The Department expects the Forest Service to apply this provision sparingly...” and “within a specified distance of certain designated routes...”(page 68284) The universal application of the 300-foot rule to all routes in the Pryors seems to conflict with this directive. The Forest should determine criteria for where such vehicle camping is appropriate. Then those “certain designated” routes, areas and/or spots where the 300-foot rule is appropriate can be implemented and it can be implemented. Unless and until this determination is made, based on scientific criteria, vehicles should be required to park beside the road. Dispersed camping can still be allowed at any distance from any road.
152-4	I would encourage you to limit dispersed camping along Rock Creek. Some of these heavily used areas are devoid of native vegetation and as such are erosive.
163-7	The 300 foot rule for dispersed camping should be changed to minimize damage to fragile resources such as soil, cultural resources and vegetation. Vehicles should only be allowed to drive and park 30 feet off the designated roads and motorized trails. Campers can then walk to their dispersed camp.
242-3	ATVs should not be allowed off roads except in very restricted camping areas. Again, not restricting off road use will result in permanent off-road scars, and unnecessarily harm plants and animals.
307-9	Allowing motorized vehicles to travel 300 feet to either side of every road universally is unwise, and application of this rule should be on a route-by-route basis, taking into consideration the topography and resources along the route.
307-15	Dispersed camping on Rock Creek and West Fork of Rock Creek. Both areas should be closed to dispersed camping to allow these heavily used areas to recover.
385-2	I strongly urge you to allow vehicles to go no more than 100 feet off the roadway to camp.
386-8	Of greatest concern in the Rock Creek valley (south of the designated campgrounds) is the impact of dispersed camping. Alt. B proposes to eliminate most dispersed sites, but not all of them. It would be realistically enforceable and better for the resource if the entire area were off limits to dispersed camping. Likewise, the West Fork of Rock Cr. has some dispersed camping that impacts the river banks, and will have some restrictions under Alt. B. But reducing or eliminating in main fork Rock Cr. will increase the pressure in the West Fork, so both need to have no dispersed camping allowed to protect the land and water.
386-24	Be much more conservative with the "300 foot rule" where dispersed camping is allowed. It essentially allows drivers to be off road along legal roads, thereby impacting a 600' corridor for miles and miles. This is unacceptable, especially at higher elevations, in more sensitive terrain. The CNF has legal discretion to curtail driving to dispersed camping where the impact is too severe. The high impact can quickly ruin the resources in popular and sensitive areas and must be addressed.
394-5	Another issue of concern to us is the 300-foot dispersed vehicle camping rule. This may be appropriate on some routes, if tightly monitored and enforced. But the universal application to all routes in the Pryors seems to be asking for trouble with resource damage, and is contrary to the intent stated in the 2005 Travel Management Rule.
406-3	No blanket drive in dispersed road side camping should be allowed. CNF should instead, designate dispersed camping spots (with limitations) where conditions are appropriate. A short spur road to some of these locations would be acceptable. Otherwise, I think a rule of one vehicle and trailer length (only while in use) permitting vehicle parking (not camping) from any road edge where conditions accommodate, would be appropriate. Hand/Animal carrying of a camp from these parking points to legal remote camp locations (the F.S. should pick the minimum distance from roads and length of stay), should be acceptable. We don't want to turn the forest roads into Drive-by Campgrounds!
425-22	If alternative C does not become the Preferred Alternative then it is essential to modify Alternative B in order for it to be acceptable to us based on the reasons provided here and with the following listed important changes to make Alternative B acceptable....The 300 foot "dispersed vehicle camping" rule should not be applied universally to all motorized routes in the all units of the Custer National Forest to prevent the spread of noxious weeds and prevent creation of new roads and trails to those off road campsites. In effect this rule arbitrarily "widens" roads to the detriment of the resource.
445-2	I am also concerned about dispersed camping in the main fork and the west fork of Rock Creek.

**Chapter 5: Response to Comments**

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-35, Dispersed Vehicle Camping</b>
	While the plan calls for some cuts in legal areas, it t=is too little
461-5	With regard to the dispersed camping exemption found in 36 CFR 212.51(b), the Travel Management Rule as published in the Federal Register states: “The Department expects the Forest Service to apply this provision sparingly, on a local or State-wide basis, to avoid undermining the purposes of the final rule and to promote consistency in implementation” (68285 FR Vol. 20 No.216).....The preferred alternative would allow the Dispersed Camping exemption for all but two routes: “This alternative allows for off-route travel to access dispersed campsites up to 300 feet off of designated routes except along system road #2421 (Main Fork of Rock Creek) and system road #2071 (West Fork of Rock Creek)” (DEIS p. 3-33).” This cannot be considered “sparingly” applied, nor designated route by route. Any preferred alternative needs to have the Dispersed Camping exemption applied sparingly, with route-by-route analysis that takes a hard look at potential impacts to each resource identified in the DEIS – Affected Environment chapter.
461-35	In addition, the DEIS did not analyze the impacts to soil productivity in relation to the broad use of the Dispersed Camping exemption, which allows for use within 300 ft of a road or motorized trail, potentially creating a 600 ft impact corridor along each route. We would like to see a map illustrating this impact zone in relation to soil types and erosion rankings.
467-30	The preferred alternative would allow the Dispersed OHV Drive-In Camping exemption for all but two routes: "This alternative allows for off-route travel to access dispersed campsites up to 300 feet off of designated routes except along system road #2421 (Main Fork of Rock Creek) and system road #2071 (West Fork of Rock Creek)" (p.3-33). This is not "sparingly" nor designated route by route. The decision to allow such a blanket exemption is in violation of the travel management rule and executive orders and was made arbitrarily.
<b>Summary of Comments:</b> Commenters are concerned with the 300’ dispersed vehicle camping and the impacts it may have on the resources.	
<b>Response:</b> In a June 30, 2006 letter, the Regional Forester of Region One provided Forest Supervisors with the following guidance: “In Montana and the Dakotas the “tri-state decision” established 300 feet as a standard for travel off route for dispersed camping. Forest and grassland supervisors should continue to use that as a starting point...Forest and grassland supervisors may consider alternatives where there is a need to do so, but are not to exceed 300 feet in their designations of travel off route for dispersed camping.” The letter also states that, “Supervisors will follow national direction and apply this provision sparingly and on a route by route basis.”	
The Forest has allowed dispersed vehicle camping within 300 feet of motorized routes since 2001, consistent with the 2001 Tri-State OHV Decision. Effects from dispersed vehicle camping have been observed at site-specific locations and not widespread along the District’s motorized routes.	
The Forest used the existing 300 foot dispersed vehicle camping standard as the starting point and considered alternatives to this standard where there was a need to do so. Alternatives B and B Modified specifically address where there have been resource issues with allowing 300 foot dispersed vehicle camping, and proposes measures to address these issues. In addition, the DEIS and FEIS evaluated the effects of continuing current District-wide dispersed vehicle camping (Alternative A) and eliminating it (Alternative C).	
Current policy states “Motorized wheeled cross-country travel for camping would be permissible within 300 feet of roads and trails by the most direct route after site selection by non-motorized means.” (Bosworth, 2001). Only after a camp site is chosen by non-motorized means can a vehicle be driven to the camp site and only if it’s within 300 feet of road. This has to be by the most direct route possible.	
Impacts to vegetation are analyzed in DEIS and bolstered in the FEIS Vegetation section by assessing the magnitude of likely camp areas through the use of analyzing areas of 0 to 4% slopes in high, moderate, and low risk areas based on resistance and resilience of vegetation. In the preferred alternative, for example, there will be a slight increase for potential impacts in high risk areas. The effects analysis indicates that small portions of the 600 foot corridor would be impacted, not the entire 600 foot corridor.	
In addition, effects to soils from dispersed camping were analyzed. A map with the hazard classes is available in the soils specialist report (project file).	
The season of use outlined in Alternatives B, C, and B Modified considers minimizing effects during spring thaw when	

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-35, Dispersed Vehicle Camping
<p>impacts to vegetation and soil are most vulnerable.</p> <p>Along the Main Fork Rock Creek road, the goal is to continue to provide dispersed vehicle camping while not allowing further dispersed site establishment. Current use has been evaluated and is generally acceptable. Water quality, cultural, and aesthetic resource concerns exist with expansion of dispersed vehicle camping site establishment and recurring use. Elements of Alternatives B and B Modified address these concerns.</p> <p>Under Alternative B and B Modified, access to dispersed vehicle camping would be allowed within 300 feet of all designated system roads and motorized trails on the District, except along system road #2421 Main Fork of Rock Creek. Along the Main Fork Rock Creek, dispersed vehicle camping would be allowed on or within a vehicle's length from the edge of designated spurs off system road #2421 (see Appendix D).</p> <p>Also under Alternative B and B Modified, access to dispersed vehicle camping along the West Fork Rock Creek Road #2071 would continue to be allowed within 300 feet of all designated system roads and motorized trails. However, per Forest Plan direction, there would be a 100 foot dispersed vehicle camping prohibition from the West Fork Rock Creek live streams.</p>	

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-36, Separate Units
<b>Letter-Comment #:</b> 68-2	The Beartooth and Pryors are two different ecosystems. The climate, soils, flora and fauna are distinctly different in the Pryors as opposed to the Beartooths. By combining data from these two ecosystems the DEIS slights the Pryors.
124-9	All merged data should be split out and clearly labeled as relating to either the Beartooth unit or the Pryor unit.
129-5	Yet far too many times in the DEIS, data from the Pryors unit and the Beartooths unit are added together and averaged in some way. Since the total area of the Pryors is much smaller than that of the Beartooths this procedure greatly obscures and skews the serious impacts of the various alternatives on the Pryors. This is not an acceptable basis for making critical decisions about the Pryors.
136-2	I am concerned that the DEIS attempts to deal with travel management in both the Beartooths and the Pryors in the same document, making no attempt to clearly differentiate between the two. Both have distinct needs.
161-3	The "PUBLIC" deserves that the Pryor Mountain Unit, be analyzed and disclosed separately....combining of the Pryors and the Beartooths, in the discussion and presentation of the impacts and effects on the various resources, results in a confusing base from which to make valid decisions.
<b>Summary of Comments:</b> The Beartooth and Pryor unit data needs to be separated.	
<b>Response:</b> Where appropriate and meaningful, more of the resource analyses effects in the FEIS have been shown by land unit in addition to displaying effects for the entire District.	

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-37, Route #2095
<b>Letter-Comment #:</b> 155-16	Routes 2095 and 20952 for closure to the public and to be used for administrative use only (page C-15) of the DEIS. I have been informed by team members that there are cultural considerations on this portion of road. It would seem the team did not consider means on how to mitigate any foreseeable problems and rather opted for closing it to public use.
381-1	I mostly support Plan B but I would like you to rethink closing of trail 2095. Many times the trail up Stockman to the Bainbridge is blocked by snow, ice, and steepness. You know the place, just past the 2095 junction. If 2095 is left open, then vehicles can do the loop. It is a much more user friendly road. I also know that a rancher leaves his equipment behind a fenced in section along that road so I suspect that his interests are driving the decision. But, restricting access to the top via 2850 is not in the best interests of the public. So leave 2095 alone.
438-11	Recommendation made under Alternative B concerning Routes 2095 and 20952 for closure to the public and to be used for administrative use only (page C-15) of the DEIS. I have been informed by team members that there are cultural considerations on this portion of road. It would seem the team did not consider means on how to mitigate any foreseeable problems and rather opted for

**Chapter 5: Response to Comments**

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-37, Route #2095</b>
closing it to the public use.	
<p><b>Response:</b> The Forest Service considered additional options for designating road #2095 for public motorized use. Ultimately, concerns regarding heritage resources led the Responsible Official to decide to identify the route for administrative use only in Alternative B Modified. The route is needed for administrative purposes.</p>	

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-38, Route #21415</b>
<b>Letter-Comment #:</b>  367-1	The Montana Department of Natural Resources and Conservation (DNRC) Southern Land Office respectfully requests Road# 21415, as shown in Alternative A in Section 12-T7S-R18E, be open to highway vehicles only - yearlong, the same designation as Road# 2141. This road would provide vitally important legal access to the State's 5,610-acre block of School Trust land in Sections 3, 5, 6, 7, 8, 9, 10, 11, 12-T7S-R19E and Sections 7-T7S-R20 in Carbon County. Currently, the DNRC does not have legal motorized access to this block of ownership. Allowing motorized access on this road to the west section line of Section 7-T7S-R19E would enable our agency access to actively manage its natural resource, provide for fire suppression activities, and provide recreational opportunities for the public.
<p><b>Response:</b> The Forest has worked with the State of Montana Department of Natural Resources and Conservation (DNRC) to identify access through National Forest System lands to the subject State land sections. DNRC and the Forest have agreed to propose converting non-system route #21415 to a system road for administrative use only contingent upon mitigating water quality and fisheries concerns with the existing route.</p>	

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-39, Route #2093</b>
<b>Letter-Comment #:</b>  129-13	Route #2093 on Island Ridge is a 1.5-mile road to nowhere for motorized users. Yet it means that hikers and horse people wanting to take the nice day hike to the end of Island Ridge will have to compete with ATVs, and their damaged trails, for the first mile and a half. Again hikers lose a lot and OHV folk gain very little. In 2004 the Forest proposed this route for “yearlong restriction” allowing no motorized use to “reduce road maintenance cost, prevent damage to vegetation, and prevent soil erosion.” What changed in three years?
<p><b>Response:</b> The Forest Service reviewed route rationale used in 2004 Proposed Action for road #2093 in developing the DEIS. Concerns listed in the rationale in the proposed action for this route did not reflect the actual field conditions. Consequently, the Forest Service determined that it was appropriate to consider the route for public motorized use.</p>	

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-40, Route #20972 (Roberts Bench)</b>
<b>Letter-Comment #:</b>  129-14	Robert’s Bench route #20972 is a 1.2-mile dead end road providing great temptation for OHVs to wander farther. If motorized it will significantly increase enforcement problems and be a significant loss to hikers looking for an easy hike. In 2004 the Forest identified this route as “unneeded” and proposed it for “yearlong restriction” allowing no motorized use to “reduce road maintenance cost, prevent damage to vegetation, and prevent soil erosion.” What changed in three years?
461-28	Within the Pryor Unit, why is seasonal use of 20972 allowed when it provides access to a remote area of the unit and exposes a traditional cultural property (TCP) to potential vandalism? As admitted in the DEIS, “including this route could lead to the loss of this irreplaceable cultural resource.” (DEIS p. 3-64). This is an unacceptable consequence and this route should be closed.
<p><b>Response:</b> The Forest Service reviewed route rationale used in the 2004 Proposed Action for Roberts Bench (#20972) in developing the DEIS. The team determined that the concerns listed in the rationale in the proposed action for this route did not reflect the actual field conditions. Consequently, the Forest Service determined that it was appropriate to consider the route for public motorized use.</p> <p>The Forest Service considered additional information and concerns related to Roberts Bench (#20972) in developing Alternative B Modified. A fence currently crosses the route ½ mile from its beginning. In addition, heritage concerns have been identified with use of the route. Consequently, the first ½ mile of Roberts Bench would be designated for public motorized use, but the remainder of the route would not.</p>	

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-41, Route #2140
<b>Letter-Comment #:</b> 482-5	Picket Pin road should not be restricted as the Gallatin plan hasn't been approved and will be litigated therefore there are no restrictions on the road. Picket Pin road is a good example of lack of maintenance, as the only maintenance conducted on the road is by an exploration company as a condition of their approval to operate.	
<b>Response:</b> The Gallatin National Forest made a decision on travel management planning in December 2006 and has begun to implement their plan. After further review and coordination with the Gallatin, the Forest has determined that there does not appear to be a need to limit the season of use on Picket Pin Road (#2140) on the Custer National Forest. The resource concerns are limited to the Gallatin National Forest, and their season of use restriction would be sufficient to address their concerns. Alternative B Modified reflects this information.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-42, Correction 1
<b>Letter-Comment #:</b> 129-25	Important Note: The percentages in Table 3-8 are calculated incorrectly from the data in Table 3-16. The incorrect values greatly underestimate the impact of Alternative B on non-motorized recreation.	
<b>Response:</b> Thank you for identifying this error. The table has been corrected in the FEIS.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-43, Non-Motorized Trails
<b>Letter-Comment #:</b> 124-14	Similarly, there are duplicative and parallel roads in the Stockman trail area. One needs to be designated and the rest closed or designated for horses and pedestrians.	
129-12	There are no designated non-motorized trails up the south or west slopes of Big Pryor Mountain.	
129-20	The Pryors Coalition is particularly concerned about the total dominance of motorized routes up the south and west slopes of Big Pryor Mountain in the Forest's Preferred Alternative B. It is a bit difficult to know how to count the spaghetti of roads, but there are about eight motorized routes up Big Pryor Mountain. Yet there are NO designated non-motorized routes on which horse riders, mountain bikers, and hikers can safely and peacefully go up Big Pryor away from the motorized commotion. This extreme imbalance threatens to make Big Pryor exclusively a motor sport park. This is inappropriate given the DEIS data showing OHV users are a small minority of users – and will continue to be in the future. ...The clear solution to the above problems is to designate at least half of the trails up the south and west slopes of Big Pryor Mountain as non-motorized. We recommend that these non-motorized routes include the Inferno Canyon route #2018, King Trail #2011, and Bear Canyon route #2492, including Bear Canyon Ridge route #2814.	
163-8	Finally, the maze of eight or nine parallel routes up the west and southwest face of Big Pryor needs to be re-considered. There's no reason for so many parallel motorized routes. Designate at least four or five of them non-motorized trails for horses, hikers and mountain bikers. Follow the recommendations of the Pryors Coalition regarding specific routes. Close Bear Canyon Road #2492 at the Forest Boundary. Route #2088 should be closed to protect resources and provide a quiet area NW from Crater Ice Cave.	
345-5	Close to vehicle traffic at least half of the four roads now streaming down the Southwest Slope (#2496, #2850 (to the junction with #2496), #2018, #2011). Convert those closures to non-motorized hiking trails. There are none in that area now. Additional redundant motorized routes to the high country include four that ascend to Stockman Trail: #2012, #2850, #2492 or #2814. Close all but one to vehicle traffic; convert the others to non-motorized trails. Close to vehicle traffic two dead-end roads and dedicate them to foot traffic; #2093 (on Island Ridge) and #20972 (Robert's Bench). These roads are dead-end only for vehicles; other users can use them for additional jumping-off points. Kudos to the Custer National Forest for proposing to close Road #2308B (Dryhead Loop Route).	
394-2	Motorizing essentially all the trails from the low country to the high country leaves no routes (designated or undesignated) for hikers, horse riders, and mountain bikers. These users far outnumber OHV users on Custer National Forest, as on other National Forests. Your studies report the "quiet" users will continue to far outnumber OHV users in the future - unless they are excluded from the Pryors because there are no access routes that do not require competition with increasing number of ATVs. It is possible that some hikers might find cross country routes off of the motorized trails. But horse riders and mountain bikers need trails. And the overwhelming majority of hikers prefer to follow a trail rather than having to navigate through rough and	

**Chapter 5: Response to Comments**

<b>Subject: Miscellaneous</b>		<b>Response #: MISC-43, Non-Motorized Trails</b>
	unfamiliar country.	
406-8	In light of the above, I want some roads/trails reclassified as non-motorized, especially in the Pryor Mountains; any roads considered not needed or necessary could be classified as administrative use only, pending further study. Thinking that these old roads will direct the flow of quite users; preventing further damage of multiple "user created" foot trails. To be more specific, as examples (the full list would be too lengthy), road #'s 2018, 2011, 2492, 2814, 2088, 2144, 2096, 20972 should all be non-motorized trails.	
414-4	In the Pryor Mountain Unit I note that there is only one trail designated as non motorized travel off trail and on undesignated existing routes, however it is disappointing to see that you apparently plan to maintain just one non motorized trail in the entire unit.	
414-5	This is an unacceptable conflict, especially considering the proposed near 100% motorized designation of the Pryor Mountain area. I hope you will consider maintaining some trails, especially on the southwest face of Big Pryor Mountain, as non motorized.	
417-5	In the Pryor Mountain Unit we note that there is only one trail designated as non motorized, open to hikers and horsemen. We recognize that there are opportunities for non motorized travel off trail and on undesignated existing routes, however it is disappointing to see that you apparently plan to maintain just one non motorized trail in the entire unit...We hope you will consider maintaining some trails, especially on the southwest face of Big Pryor Mountain, as non motorized.	
<b>Summary of Comments:</b> There is a desire to convert routes to non-motorized trails.		
<b>Response:</b> The Forest Service considered opportunities to change the uses of routes from non-motorized to motorized and motorized to non-motorized on the District. A limited number of routes were changed. Factors such as existing route management, Forest Plan direction, and Congressionally designated land use, along with the fact that in most all cases there was no clear evidence of a need to make this type of change to a route, led to proposals to maintain the existing motorized or non-motorized use of a route.		
The Forest Service reviewed existing routes not being proposed for motorized use for potential non-motorized trail opportunities. However, the same concerns associated with designating routes for motorized use existed with making the routes system non-motorized trails. Consequently, no routes are proposed for conversion to non-motorized system trails in Alternative B Modified. Construction of non-motorized trails is outside the scope of this project.		

<b>Subject: Miscellaneous</b>		<b>Response #: MISC-44, No Action</b>
<b>Letter-Comment #:</b>		
416-3	The No Action Alternative is improperly described and mapped in the DEIS. On page 2-9 the DEIS says: "This No Action Alternative largely reflects the set of system roads identified in the 1987 Travel Plan along with modifications that have been made to the system since 1987." However several significant roads are tabulated and mapped in the No Action Alternative which were not in the 1987 Travel Plan, and have not been officially added to the system. These include Shriver Peak route #2088 west of Shriver Point (i.e. Crater Ice Cave), route #2095A, #2814 and route #2096...Please inform me if there is documentation of the addition of any of the mentioned routes according to proper procedures. The significance of this "oversight" is that the DEIS understates the number of miles of non-system roads being added to the System in the Preferred Alternative. It also understates the increase in "motorized opportunity" and the decrease in "non-motorized opportunity" in the Preferred Alternative. (Note that this is in addition to the serious computational error in Table 3-8, page 3-17.)	
461-9	The No Action Alternative inaccurately labels non-system routes as existing system roads; this error needs to be corrected. However some roads tabulated and mapped in the No Action Alternative were not in the 1987 Travel Plan and no records exist demonstrating that they have since been officially added to the system. Specifically, in the 1987 Travel Plan, Rd. #2088 ends at Crater Ice Cave, but the No Action Alternative shows this road extending an additional 5 miles to the west. Route 2095A does not appear in the 1987 Travel plan, but it is currently in the No Action Alternative. Finally, the 1987 Travel Plan does not include the approximately 2 mile Bear Canyon Ridge #2814, but it also appears in the No Action Alternative.	
<b>Response:</b> The basis for the No Action Alternative is the current National Forest system roads and trails on the District. This is consistent with direction provided in the 2005 Motorized Travel Rule. The No Action Alternative does in many respects "largely reflect" the 1987 Travel Plan, but there are differences. Using the 1987 Travel Plan as a basis for no		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-44, No Action
<p>action would not be consistent with the 2005 Motorized Travel Rule guidance, because it does not include all of the existing system roads and trails on the District. The routes that compose the set of set roads and trails have been incorporated into the system, and based on Forest Service knowledge they were added consistent with policy that existed at the time they were added.</p> <p>The primary issue with using the 1987 Travel Plan as the no action is that it relied upon route descriptions that are typically indistinct, and there is no accompanying map of the plan that would allow routes and route locations to be substantiated.</p>		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-45, Suitable Routes
<b>Letter-Comment #:</b> 67-20	Each non-system route should be further analyzed and all of those that provide reasonable motorized access or recreational opportunities should be included in the final preferred alternative.	
461-17	If the resource damage is apparent on specific routes, then it should at least be qualified, if not quantified, in order to adequately analyze any already occurring and future potential impacts. This is important because trail conditions directly influence the recreation experience; hiking a rutted-out, two track trail is a very different experience than hiking a single track trail in good condition. The Forest Service uses Trail Classes for determining maintenance needs, and the DEIS should identify any trails that have resource damage. Such information is not provided in the DEIS or illustrated on any maps, and in order to properly comment and for the decision maker to make a well-informed decision, this problem needs to be corrected.	
<p><b>Response:</b> An interdisciplinary process was used to identify routes suitable for public motorized use designation, including all identified non-system routes. The process included identifying natural and cultural resource concerns, recreation, access needs, and other related considerations consistent with the 2005 Motorized Travel Rule to develop Alternative B and Alternative B Modified. Route documentation is included in the Project Record.</p>		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-46, Dead-End Routes
<b>Letter-Comment #:</b> 136-5	Also, we should consider that "dead-end" roads such as #2088 on Big Pryor and #2144 in Punchbowl (and some others) are particularly tempting to people wanting to wander off the authorized routes in their motorized vehicles. We should consider closing these routes in order to reduce their impact. These would be ways that we could plan for and respond to the practically certain impact of illegal use of OHVs as they are taken off of the authorized routes in the Pryors.	
<p><b>Response:</b> For the purposes of NEPA, analyses must assume that law, regulations, and policies will be followed. Identifying where, when, and how laws, regulations, and policies may be disregarded is speculative, and not appropriate for NEPA analysis.</p> <p>The interdisciplinary team did attempt to avoid dead end routes in order to reduce unintentional route extension or route "creep". However, some dead end routes were included in the alternatives, typically because there were no significant resource issues with the route, or an administrative, utilization (including recreation), or protection need for the route had been identified.</p>		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-47, 2005 Motorized Travel Rule
<b>Letter-Comment #:</b> 66-23	Specific references from the new National OHV Policy that must be adequately addressed include: <i>Existing – The unit or district restricts motor vehicles to “existing” routes, including user-created routes which may or may not be inventoried and have not yet been evaluated for designation. Site-specific planning will still be necessary to determine which routes should be designated for motor vehicle use. For many visitors, motor vehicles also represent an integral part of their recreational experience. People come to National Forests to ride on roads and trails in pickup trucks, ATVs, motorcycles, and a variety of other conveyances. Motor vehicles are a legitimate and appropriate way for people to enjoy their National Forests—in the right places, and with proper management. To create a comprehensive system of travel management, the final rule consolidates regulations governing motor vehicle use in one part, 212, entitled “Travel Management.” Motor vehicles remain a legitimate recreational use of NFS lands. This final rule requires designation of those roads, trails, and areas that are open to motor vehicle use. Designations will be made by class of vehicle and, if appropriate, by time of year. The final rule</i>	

**Chapter 5: Response to Comments**

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-47, 2005 Motorized Travel Rule
	<i>will prohibit the use of motor vehicles off the designated system, as well as use of motor vehicles on routes and in areas that is not consistent with the designations. The clear identification of roads, trails, and areas for motor vehicle use on each National Forest will enhance management of National Forest System lands; sustain natural resource values through more effective management of motor vehicle use; enhance opportunities for motorized recreation experiences on National Forest System lands; address needs for access to National Forest System lands; and preserve areas of opportunity on each National Forest for nonmotorized travel and experiences.</i>	
<b>Response:</b> The process for the Beartooth Ranger District Travel Management Planning effort has been conducted consistent with the 2005 Motorized Travel Rule.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-48, Cost to Implement
<b>Letter-Comment #:</b> 67-12	Cost of initial implementation. These numbers are unreasonably high. Do these numbers reflect the fact that motorized users volunteer to maintain roads, thereby significantly reducing costs and that grants and gas tax money are available?	
<b>Response:</b> The costs to implement proposed travel management actions are estimates. They do not include volunteer contributions that may lower these costs because there are no formal agreements with volunteers at this time to conduct the needed work. There have been offers by <i>both</i> the motorized and non-motorized visitors to assist with this work, but because the specific scope of work, volunteer training needs, and similar items have not been identified at this time, the extent of any volunteer offset of implementation costs would be speculative.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-49, Specific Route Rationale
<b>Letter-Comment #</b> 68-29	I question the reason for keeping the Piney Creek trail open...It dead-ends at the limestone quarry. I recommend that the Piney Creek Trail, 2012, be permanently closed. The presence of a road will be evident for a long time into the future. On your MVUMs indicate it as a hiking or horseback trail.	
95-1	I propose you keep all of #2097B and remove that portion of #2097 that is redundant; this will allow the public to access the forest service cabin during the fall and winter months.	
97-5	Route 2085P and Route 2085R, one of these routes need to be allowed. If only one route goes to and from your threat of "potential" impact on cultural resources will be cut by 50%	
97-7	Your rationale for closing a large amount of routes is that "they do not provide desirable dispersed vehicle camping opportunity" These routes were not intended for camping but for vistas and short hikes for the "motorized experience". Some folks do not have the time, nor the want to spend days in one area.	
97-9	Route # 2085T and #2085T1, one of these routes could be closed rather than both. There are motorized users that do tent in this area and they will gladly share with hikers ect..	
132-2	Closing trails because they are not good "camping opportunities"! We like to take day rides and ride over 50 miles per day. Camping is not an issue.	
158-8	Trails 2073 and 2073E interlink trails on the north end by private land. I would like to see that open yearlong to motorized travel.	
161-11	Stockman's Trail #2850. This route provides the mainline access route from the Westside of the Mountain to the Southside. It should be retained.	
307-12	Roads 28461 and 28466 near Nye should be closed. They are dead-end roads and don't fulfill the preference of ATVs to have loop roads. They also add to the maintenance and enforcement costs for the Forest Service.	
412-5	Trails #2099, 23086, 23087, 23088, 20731A, 2092E - Closing these trails takes away a centralized motorized area. These trails offer a good diversity of terrain for families with children to take short rides on many different trails to help increase skills and increase seat time for the user. The "not desirable for dispersed camping" reason is short sighted and can be resolved by limiting camping in that specific area and not limiting the access. There are no erosion or other problems sighted that would require this area to be closed.	
412-9	Trail #2092 - Commissary Ridge - Eliminating motorized access is unnecessary on this route and takes away a heavily used access for handicapped users to view the area. The Pryor Coalition has made it clear that over a 1 mile distance is needed to create a "quiet area" desirable by some nonmotorized users. This trail is only 0.75 miles long and would not create this desired nonmotorized used area as the DEIS states as the reason for closing this trail. Also this trail is	

<b>Subject:</b> Miscellaneous	<b>Response #: MISC-49, Specific Route Rationale</b>
	the only hunting access to this side of the WRA and is highly valued for sighting and retrieving game.
420-4	Alternative Plan B lists trails 2095 and 20952 as roads closed to the public and for administrative use only. If there are cultural or other concerns existing along these trails, we would like to know specifically what these concerns are and how changes can be made to keep this important link between trails 2091 and 2850 open to OHV use. We are confused as to why trails 2073 and 2073E are listed as roads closed to the public and for administrative use only in Alternative Plan B....Do the designations of trails 2092, 20952, 2073 and 2073E fall under the normal use of administrative use only classification? If these are for administrative use only for access reasons only, are there some fairly easy remedies to make these trails available to all users?
421-36	Alternative B concerning Routes 20951, 2091T, and 20162, 2013, 2012, 2016-209144 are identified on the Alternative A map but have not been given reason for closure in the DEIS and yet do not show on the Alternative B map. We strongly suggest these trails be in the Travel Plan. We are looking for looping opportunities and the road bed is in good shape.
438-8	Recommendation made under Alternative B concerning portions of Route 2073 and all of 2073E (page C-15) of the DEIS only allows for administration use even though there is a legal means of access. Opportunity needs to be given for the public to use these roads. Game retrieval and the need for a diverse opportunity for motorized needs to be met.
438-12	Recommendations made under Alternative B concerning Routes 20951, 2091T, and 20162 are identified on the Alternative A map but have not been offered a rationale for closure in the DEIS and yet are not show on the Alternative B map. Unless meaningful rationale for closure of these routes by the interdisciplinary team can be made they should remain a part of the travel plan for the present and future enjoyment of all motorized users.
<b>Summary of Comments:</b> Some commenters question the specific route rationale.	
<p><b>Response:</b> Specific route rationale is available in Appendix C and the project record. Non-system routes that are not proposed to be added to the system would not show up on the system and would not appear in the <i>action</i> tables in Appendix C because there would not be any action proposed. Rationale for disposition of non-system routes is contained in the project record.</p> <p>Each route was evaluated in an effort to identify resource concerns and recreation opportunities. Routes with minimal recreation value, as determined by the Forest and District recreation staff, such as short dead ends that don't contribute to a motorized loop opportunity, have no level ground for dispersed camping, and/or other similar rationale may not have been proposed for public motorized use in Alternative B or B Modified.</p> <p>Road #2012 Piney Creek: In response to public comment, this route would not be designated under Alternative B Modified. In addition, Road #2013 Graham Trail is proposed to be designated to provide a better motorized recreation opportunity than Road #2012.</p> <p>Roads #2097 and #2097B: These routes literally run side-by-side for .54 miles, with one route on either side of a fence line. Alternative B and B Modified propose to eliminate one or the other of these routes.</p> <p>Roads #2085P and #2085R: There are identified resource concerns with these routes. They are proposed for designation in Alternative A, but not proposed for designation in all other action alternatives to reduce the potential for impacts to cultural resources.</p> <p>Roads #2085T and #2085T1: Route #2085T is proposed to be designated for public motorized use in all alternatives, except Alternative C in response to the Pryors Coalition proposed alternative. After field review, Route #2085T1 is along a fence line and was created for installation of the fence. It is proposed for designation in Alternative A, but given its relatively short length (.29 miles) and limited recreation value it was not proposed for designation in any other action alternative.</p> <p>Roads #2073 and #2073E: These routes are parallel routes to 2144 and 2308. The Forest has a previous commitment to retain this route for Administrative use.</p> <p>Road #2850: All of the alternatives, except Alternative C, propose to designate all of Road #2850. Alternative C proposes to designate all but a 1.66 mile section in response to the alternative proposed by the Pryors Coalition.</p>	

**Chapter 5: Response to Comments**

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-49, Specific Route Rationale
<p>Roads #28461 and #28466: No resource concerns are identified in association with these routes. They are proposed for public motorized use in all alternatives except Alternative C.</p>	
<p>Road #2092 Commissary Ridge: In response to public comment, Alternative B Modified proposes to designate all of route #2092 for public motorized use. The FEIS analyzes a range of alternatives related to this route.</p>	
<p>Route #2095: Route #2095 is recognized as providing motorized recreation opportunities. Multiple options were analyzed for addressing the heritage concerns, which include artifact displacement, site compaction, and vandalism that is most likely accelerated with motorized use of 2095. However, it was determined that identifying the route for administrative use only in Alternative B Modified was the most practical alternative at this time to protect the cultural resources given the large size of the site and the large expense that would be involved to adequately mitigate effects of public motorized use. These options, such as re-routing the road, are outside the scope of this action, but could be considered outside of this process.</p>	
<p>Non-system routes #20951, #2091T, and #20162 all had cultural resource concerns associated with them. They are proposed for designation in Alternative A, but not in any of the other action alternatives.</p>	
<p>Rationale for not proposing to designate road #2016 in Alternative B was provided in Appendix C of the DEIS.</p>	
<p>The only access to 20952 is via 2095. In Alternative A, both are proposed to be designated. In all of the other action alternatives, 2095 is not proposed to be designated due to cultural resource concerns (it would be available for administrative use). Consequently, there would be no motorized access to 20952, so it is not proposed to be designated in those alternatives.</p>	
<p>Route #2099 is proposed to be designated in Alternative A, however it is not proposed in all other action alternatives. This is primarily because the interdisciplinary team could not identify an administrative, utilization (recreation), or protection need for this dead end route. Rationale was provided in Appendix C for this action.</p>	
<p>Routes #23086, #23087, #23088, #2092, and #20731A are proposed to be designated in Alternative A, however they are not proposed in all other action alternatives. This is primarily because the interdisciplinary team could not identify an administrative, utilization (recreation), or protection need for these relatively short, parallel routes. Rationale was provided in Appendix C for these actions related to #23086, #23087, #23088, and #2092E; rationale for #20731A is in the project record.</p>	
<p>There is no route #209144.</p>	

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-50, Visitor Use
<b>Letter-Comment #:</b> 418-4	The Travel Plan should, first and foremost, protect the health of the Pryors using best management practices...It's time to acknowledge the concept of carrying capacity and integrate it into decisions on motorized recreation.
418-5	Resource allocations for Recreation use should reflect demographics and data shown in the DEIS Economics/Recreation section...Do not turn unauthorized, user created roads/trails into system roads thereby rewarding unauthorized actions.
<p><b>Response:</b> The Custer National Forest and National Grasslands Land and Resource Management Plan was developed through the long-term resource management planning efforts required by the National Forest Management Act, as amended. This very public process set the goals, objectives, forest-wide and management area standards for the Forest and provides the basis for management of the Forest's resources. Site-specific efforts such as travel management planning address a component of Forest management, but are not intended to be the more comprehensive planning effort associated with Forest-level land management planning. Site-specific efforts like travel management planning must be consistent with the Forest Plan.</p> <p>The Regional Forester, in the Record of Decision for the Forest Plan, acknowledged the multiple-use challenges the Forest confronts, back when the Plan was signed, as well as today:                      “The Forest Service vision of the Custer National Forest is of a Forest managed to benefit the public in harmony</p>	

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-50, Visitor Use
<p>with the natural environment. Management direction responds to interested parties, to the effects on peoples lives and to the capability of the land.”</p> <p>And in the Rationale for selecting the Forest Plan in the Record of Decision, the Regional Forester noted:          “No single factor or individual consideration constitutes the total rationale for my decision. Instead, it was the consideration of many factors and their interrelationships,…”</p> <p>...“In making this decision, I recognize the limitations of the physical and biological systems, and that the Custer National Forest cannot satisfy every individual or group. (ROD, page 13.)</p> <p>Further in the Record of Decision, the Regional Forester in summarizing the reasons for regarding the selection of the Forest Plan, notes:          “I believe the Plan provides a management strategy for the Forest that maximizes net public benefit. This is achieved by providing a balance among commodity outputs, thus providing for a reasonable level of local employment while protecting amenity values such as wildlife, fish, scenic quality, and diverse recreation opportunities that are important to area residents. The Forest provides a variety of recreation activities that benefit nearby communities indirectly but the Forest has little control over the total benefits to these areas. Management is within the physical and biological capability of the land.</p> <p>One of the decisions made in the Record of Decision for the Forest Plan was the allocation of areas to allow for certain types of activities. Forest Plan Management Areas in the analysis area, the Beartooth Ranger District, are B, C, D, E, F, G, H, I, L, M, P, Q, R, and T. Of these, Management Areas H (recommended wilderness), I (Wilderness), and L (Research Natural Areas) generally prohibit roads and trails in them. The other management areas allow/provide for motorized travel within them.</p> <p>One of the purposes of the 2005 Motorized Travel Rule is to identify the minimum motorized transportation system needed for the long-term land and resource management and administration of the national forests and grasslands. To comply with the 2005 Motorized Travel Management Rule, the interdisciplinary team went through the original proposed action to determine if each of the proposed actions was reasonable and still desirable, and supplemented rationale for the original proposed actions where appropriate. (FEIS, Proposed Action description).</p>	

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-51, Trends
<b>Letter-Comment #:</b> 67-13	The same analysis must be done for the Custer National Forest and it will find the same no growth trend and a lack of an adequate number of existing routes that is further made worse by a lack of new routes to address growth.
<b>Response:</b> The Recreation section of the DEIS and FEIS identifies local, state, and regional trends in recreation use. The State of Montana Fish, Wildlife, and Parks information that was used was based upon OHV registration. This information was used to determine the effects of the proposed travel management changes on recreation opportunities and the responsiveness of the alternatives to the identified trends in recreation.	

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-52, Route Construction
<b>Letter-Comment #:</b> 66-156	Identify any reroutes that are part of the travel plan proposal because the reroutes are often of lesser quality and the reduction in quality needs to be mitigated.
<b>Response:</b> The commenter has not defined what is meant by a re-route, but it is assumed to mean a route constructed as an alternative to a route this is not going to be designated for public motorized use. Route construction is outside the scope of this analysis.	

<b>Subject:</b> Miscellaneous	<b>Response #:</b> MISC-53, Correction 2
<b>Letter-Comment #:</b> 129-29	Note there is apparently a typographical error in table 3-54. The number 7,808 acres susceptible to weed infestation in alternative C in that table contradicts the number 2,211 which appears in tables 3-52 and 3-55 and elsewhere in the text.
<b>Response:</b> Thanks for your letting us know about the mistake in Table 3-53. It has been corrected.	

**Chapter 5: Response to Comments**

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-54, Agency Policy
<b>Letter-Comment #:</b> 66-125	The concept of area closure is not consistent with Forest Service regulations as established by appeals to the Stanislaus National Forest Travel Management Plan ( <a href="http://www.fs.fed.us/r5/ecoplan/appeals/1998/fy98_stanislaus.htm">http://www.fs.fed.us/r5/ecoplan/appeals/1998/fy98_stanislaus.htm</a> ). We request that the findings of that appeal including the following excerpts be included in this evaluation...	
<b>Response:</b> The agency policy relied upon for this ruling has been replaced by the 2005 Motorized Travel Rule. Under the Rule, routes designated for public motorized use are to be identified on the Motor Vehicle Use Map. There is no further requirement for posting of open or closed routes in the Rule.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-55, Motorized Trail Opportunity
<b>Letter-Comment #:</b> 66-130	We request evaluation of the loss of opportunities for off-highway vehicles due to the lack of a continuous system of roads and trails on which off-highway vehicles can be legally ridden and the formulation of a preferred alternative to address that issue.	
421-50	In the Pryor's, all roads & trails should be non-system trails meaning dual uses based on the 2005 Travel Management system. This would allow non-licensed drivers to ride them with their families except for trail #'s 2308 & 2085, these two should have trails running adjacent to them for non-licensed drivers.	
<b>Response:</b> The District currently has eight miles of routes, involving three trails, available for unlicensed OHV use in the No Action Alternative. Two of the trails could be construed to provide a "continuous" opportunity. Alternatives A, B, and B Modified would provide many more miles of opportunities for unlicensed OHVs, and attempted to provide continuous opportunities by providing loops for unlicensed OHV use. Alternative C is intended to place less emphasis on motorized recreation opportunities and would eliminate opportunities for unlicensed OHV use. Based on the opportunities provided by the alternatives, it is not apparent that an "evaluation of the loss of opportunities for off-highway vehicles due to the lack of a continuous system of roads and trails on which off-highway vehicles can be legally ridden" or "the formulation of a preferred alternative to address that issue" are warranted since multiple alternatives increase these opportunities.		
Licensed OHVs can be operated on National Forest System roads. The motorized recreation effects of changes to these routes have been disclosed in the Recreation section of Chapter 3.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-56, Alternative A
<b>Letter-Comment #:</b> 387-4	...a reasonable alternative and reasonable expectation that would keep routes open for all visitors. This reasonable alternative was not considered and evaluated and is most often only part of the No Action alternative which is never the preferred alternative.	
<b>Response:</b> Alternative A was intentionally developed to reflect the alternative described by proposing designation of all existing motorized routes except those that the Forest Service does not have a legal right-of-way to access, are already naturally revegetated, or for a limited number that were needed for administrative use only.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-57, Measurable Effects
<b>Letter-Comment #:</b> 387-13	Any measurable impact from OHV use is judged to be significant. OHV impacts are a small fraction of natural actions. Nature should be used as the standard for comparison of OHV impacts.	
<b>Response:</b> The DEIS and FEIS do not assume that any measurable effect from OHVs is a significant impact. Thresholds for determining impacts are resource specific.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-58, Increase Motorized Opportunities
<b>Letter-Comment #:</b> 387-23	CBU requests that an alternative be made available that increases motorized and mechanized opportunities.	
<b>Response:</b> Alternatives A would increase motorized and mechanized opportunities compared to the No Action Alternative. Creating additional opportunities by constructing routes is outside the scope of this analysis. (See Chapter 1 Scope of the Decision section, Chapter 2 Alternatives section, and Appendix G Actions Outside the Scope this Decision.)		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-59, Route #28491
<b>Letter-Comment #:</b> 404-1	I feel that the opening of 28491 would cause similar damage while encouraging people to continue using the other old roads in the area.	
<b>Response:</b> Route #28491 was inadvertently shown as designated for public motorized use on the map displaying Alternative B. The road is currently not open to public use and there is no proposal to change this. The map will be corrected in the FEIS.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-60, Addressing Resource Concerns
<b>Letter-Comment #:</b> 411-12	Has the CNF looked at having a temporary restriction to let the resource issue heal its self over a 1 or 2 year time or with assistance from the public to help correct an issue?	
<b>Response:</b> The interdisciplinary team considered various options in Alternatives B and B Modified for addressing resource concerns, such as delaying designation until mitigation is completed, not designating routes, and season of use restrictions. In addition, the Forest Service expects to seek help from motorized and non-motorized groups that have offered to assist with mitigation work.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-61, Recreation Emphasis
<b>Letter-Comment #:</b> 411-35	The terms the CNF use of motorized vs. non-motorized is drawing a preconceived notion. This portrays the different users are in competition for use on the forest and this is not true.	
<b>Response:</b> Reference to motorized or non-motorized preferences is a generalization of the public comments received on the project. In general, a majority of the respondents could be characterized as falling into one of two groups; those that preferred emphasizing motorized recreation experiences and those that preferred to emphasize non-motorized recreation experiences. To some extent, these are competing values focused on limited resources.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-62, Correction 3
<b>Letter-Comment #:</b> 412-10	Trails #20162, 2091H4, 2091H3, 2091H2, 2091H1, 20911, 20913, 20912, 20161, 2091T, 20951A, 24921 - We cannot find the reasons for closing these trails in the DEIS Alternative B section that lists reasons for trail designation(or non-designation). Why are each of these trails not included as system trails for Alternative B?	
<b>Response:</b> The table containing the list of actions associated with Alternative B has been corrected in the FEIS to display the proposal to not designate system roads #20911, #20912, and #20913. Routes #2091H1, #2091H2, #2091H3, #2091H4, #2091T, #20161, #20162, #20951A, and #24921 are all non-system routes. They were not proposed to be converted to system roads or trails in Alternative B. Therefore, there was no action involved with these routes and they are not displayed in the table of actions associated with Alternative B. The rationale identified for not proposing to convert them to system roads is contained in the Project Record.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-63, Definition of Road and Trail
<b>Letter-Comment #:</b> 418-3	Definitions used in the EIS should be precise and accurate. "Road" and "trail" are not interchangeable as shown in the DEIS glossary. Please use "motorized" to modify the word "trail" to clearly demonstrate trail's intended use or better yet, more appropriately, call it a road. It is a disservice to the public to use vague and unclear terminology on such a critical issue.	
<b>Response:</b> The definitions used in the DEIS and FEIS are taken from the 2005 Motorized Travel Rule and Forest Service Manuals and Handbooks. The definition used for trail applies to both motorized and non-motorized trails. Throughout the DEIS and FEIS we have attempted to identify whether a subject trail is intended for motorized or non-motorized use.		

**Chapter 5: Response to Comments**

<b>Subject:</b> Miscellaneous		<b>Response #: MISC-64, Scoping</b>
<b>Letter-Comment #:</b> 461-85	In other words, the proposed action changed significantly from 2004 to 2007, yet there was no official scoping conducted on the new proposed action and the agency instead went right to publishing a DEIS. The general public did not have an opportunity to comment on the proposed action since it was not released prior to the publication of this DEIS. This is in violation of the regulations stated above.	
<b>Response:</b> As discussed in the DEIS, the 2004 proposed action was re-formatted to be consistent with the 2005 Motorized Travel Rule. The rationale used to develop the actions in the 2004 proposed action were reviewed to determine if they were reasonable and appropriate. A limited number of actions were dropped because conditions had changed, or the original basis for the action was not clear. These changes did not represent a significant change in the proposed actions. The public was advised of the need to re-format and update the proposed action at multiple public meetings held during the summer of 2006. The public had an opportunity comment on the alternatives during public scoping for the DEIS.		

<b>Subject:</b> Miscellaneous		<b>Response #: MISC-65, Motorized Mixed Use</b>
<b>Letter-Comment #:</b> 66-24	We request that a system of dual-purpose roads, and OHV roads and trails that interconnect be one of the primary objectives of the travel management plan and that this objective be adequately addressed in the document and decision. The issue of speed can be adequately and easily addressed by specifying maximum speeds and signing.	
66-25	We request that dual-use or unrestricted width trail designation be used for all of the motorized routes except single-track trails.	
66-26	We request that all reasonable routes be designated for dual-use so that a system of roads and trails can be used by motorized recreationists. Additionally, we request that the cumulative negative effect of all past decisions that have adequately considered dual-use designations be evaluated and considered in the decision-making and that this project include an adequate mitigation plan to compensate for inadequate consideration in the past.	
67-17	Dual-use routes are a very significant issue because we cannot interconnect OHV routes without them. Therefore, OHV recreationists would have a totally dysfunctional system without dual-use or they would be illegal.	
421-48	Alt. B. Custer should move more of the roads to all types of OHV's allowed or mixed use. You have 185 miles and only 27 are mixed use. This should be the more as 75% of roads mix use. This will cut down on the confusion of who can ride these trails. Only the 2308-2805 in the Pryors should be classified A hwy use. The rest is mixed uses. In the Beartooth, the only road should be Red Lodge area, East & West rosebud, Nye Road to the campground, 2846, This is all, the rest could be mixed uses, High clearance and OHV.	
<b>Response:</b> One of the primary considerations when determining when to propose motorized mixed use on roads or designate a route as a trail open to all OHV's is crash probability and severity. Trails are typically lower-speed routes where the risk of crash probability and severity tend to be lower. Road types vary widely and roads where the risk of crash probability and severity is high may not be suitable for motorized mixed use.		

<b>Subject:</b> Miscellaneous		<b>Response #: MISC-66, Available Data</b>
<b>Letter-Comment #:</b> 66-34	Furthermore, we request that the data in the next two tables be updated to reflect the significant reduction in miles of roads and motorized trails that decisions have produced since this data was assembled. This revised data should be used to guide the decision-making to forest plan and travel plan alternatives that adequately meet the needs of the public by increasing motorized recreational opportunities in the national forest system.	
<b>Response:</b> The information to update the cited tables is not readily available. However, consideration of the cumulative effects of recent travel management decisions are considered and disclosed in the Recreation section of Chapter 3.		

<b>Subject:</b> Miscellaneous		<b>Response #: MISC-67, Conflict</b>
<b>Letter-Comment #:</b> 66-150	We request that a reasonable definition for "significant" conflict be developed and used as part of this action.	
<b>Response:</b> The Human Environment section of Chapter 3 discusses and evaluates user conflicts.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-68, Routes Added
<b>Letter-Comment #:</b> 461-12	We were especially disappointed not to see any resource maps associated with each section of the Affected Environment, or maps that show the existing system routes versus existing nonsystem routes and which of the non-system routes are being proposed for additions. Without these specific maps, it is difficult to adequately comment on the alternatives.	
<b>Response:</b> Non-system routes being added to the National Forest System are identified in Appendix C for each alternative. Alternative A contains the majority of existing non-system routes, except for those that the Forest Service had no legal right-of-way to access or that have naturally revegetated. In addition, the scoping document for this project contained detailed lists and maps of all system and non-system routes.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-69, Route #241410
<b>Letter-Comment #:</b> 67-5	"Please note that routes 241410, etc. were inadvertently left off of the map for Alternative C." The Map for Alternative C is seriously flawed and must be re-issued.	
<b>Response:</b> The FEIS will display these routes on the map for Alternative C.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-70, Minimizing Effects
<b>Letter-Comment #:</b> 127-7	It would be helpful to also include in the plan a description of the kinds of resource damage the plan seeks to curtail.	
<b>Response:</b> Appendix C provides the rationale used to propose actions aimed at minimizing effects of designation.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-71, Cumulative Effects
<b>Letter-Comment #:</b> 387-30	I request that your forest evaluate the past actions in your forest district and other adjacent district that have affected motorized users and ascertain an overall picture of what impact these past actions have had.	
387-32	...to address the impact that the proposed closures in the Custer will have on forest visitors from other areas of Montana. Many other forest districts have made statements that the impact of the closures they are proposing will have little affect as visitors will be able to drive a short distance to recreate in another forest.	
<b>Response:</b> The Recreation section of Chapter 3 addresses the cumulative effects of past, present, and reasonably foreseeable actions on motorized recreation opportunities.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-72, Non-Motorized Alternative
<b>Letter-Comment #:</b> 394-9	The Forest did not analyze an appropriate range of alternatives. Where is the alternative that is as "extreme" in emphasizing non-motorized use as Alternative A is in emphasizing motorized use?	
<b>Response:</b> Alternatives, such as those analyzed for this project, must be consistent with the long-term management goals identified in the Custer National Forest Land Management Plan. An alternative that eliminated all motorized access would not be reasonable because it would be inconsistent with the Forest's Land Management Plan.		

<b>Subject:</b> Miscellaneous		<b>Response #:</b> MISC-73, Designation Criteria
<b>Letter-Comment #:</b> 467-20	For each resource affected by a particular route designation, the Forest Service should determine whether the disclosed impacts are in fact consistent with the Forest Service's obligations as per the designation criteria. The listing of routes in Appendix C does not do this as it simply categorizes the route-specific actions for each Alternative; it does not screen these route-specific actions relative to the designation criteria or the Forest Service's related duty to designate only the "minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands." 36 C.F.R. § 212.5(b). That screening process must be done as part of the impacts analysis.	
<b>Response:</b> Proposed route designations associated with Alternatives B and B Modified were evaluated for the resources listed in the designation criteria (36 CFR 212.55). The rationale used to determine route designations is contained in the Project Record.		

**NOISE**

<b>Subject: Noise</b>		<b>Response #: N-1, Decibel Noise Levels</b>
<b>Letter-Comment #:</b> 67-19	Noise. The reference is made to a 1993 book, Sound Levels of Five Motorcycles Traveling Over Forest Trails. This data is antiquated because sound levels have been dramatically reduced by new equipment and techniques since 1993 and there are noise level restrictions in effect now.	
421-44	*93 Analysis is no longer accurate or viable. Montana has newer analyses of what is safe decibel levels. There are new laws and restrictions about what decibel levels can be emitting from OHV's in public areas.	
425-11	YVAS Chapter members are mystified that the Forest Service did not include a comparison chart of all decibel noise levels and considers the failure to include a dB rating for all motorized vehicles in the DEIS analysis as serious negligence on the part of the Custer Forest Management.	
<b>Response:</b> The noise section in the FEIS will be updated to reflect Montana's sound law (MCA 61-9-418) which requires a 96 decibel sound limit for motorcycles and ATVs operated off highway on public lands. Improvement of stock equipment has brought the sound level of most dirt bikes and ATVs down into the mid to low 90 decibel range.		

<b>Subject: Noise</b>		<b>Response #: N-2, Quiet</b>
<b>Letter-Comment #:</b> 39-2	I am for quiet and natural places in which to look at birds, plants and nature in general in the Pryor Mountains.	
142-1	PLEASE reconsider your proposal for us of the Pryors. We have more than enough motorized places to use. PLEASE reserve the Pryors for peace & quiet & beauty for those of us who treasure such qualities.	
204-2	More people want to escape the noise and commotion of daily life to the peace and quite of treasured natural landscapes.	
222-3	The noise, the smoke and all the excitement is like a motor cross race. I am against allowing them in the Pryor's for all the reasons I have listed above. The people who drive these vehicles are not senior citizens out Bird watching. Indeed, with all the noise they make, all wildlife would be long gone.	
262-2	No new roads open. Also, #2088 should not be open to public motorized use west of Crater Ice Cave. The existing main roads and trails allow visitors in and on motorized vehicles an overall experience of this unique area. The majority of visitors who wish to explore the Pryors without motorized vehicles could be directed to the quieter areas with more chance of seeing wild game and undisturbed meadows. Motorized vehicles on #2088 interfere with this quieter exploration.	
317-3	Road number 2088 should not be open to motorized traffic west of the ice caves. Opening this road exposes a huge swatch of the Pryor mountains to the noise and dust from motorized traffic.	
320-1	Alternative B does not address the fact that hikers from all over Montana enjoy the peaceful quietness of the area. Allowing motorized traffic in two-thirds of the Pryors (Alternative B) will destroy that option.	
324-2	Alternative B or even yet, - C where there seems to be a balanced land use policy. ATV'ers and people like us both to have a place in this area. There is nothing worse as a hiker or camper to have a noisy vehicles interrupt your peace and it leads to confrontations (i.e. like one we had with snowmobilers on a cross-country ski trail) so it would be better for both groups if the areas were separated.	
334-2	So many roads in the Alternative B distracts from the beauty and serenity of the area, the reasons many of us go there. Maybe some of the roads should be closed to motorized and open to hiking and horse back only; it would be nice to get away from it all and maybe hear a bird sing.	
344-1	Motorized access should be limited -- #2088 should not be open to motorized use and the Bear Canyon road #2492 should be converted to a non-motorized trail. Why? Because there are many alternative routes open to ATVs and the sound of ATVs disrupts any sense of wildness, not to mention degrading the landscape when people ride off trail.	
386-3	Especially desirable are the series of non-motorized trails near Myers Cr. and Island L., which allow an area of quiet trails recreation	
386-16	Consider leaving more land free of motorized routes to allow for some quiet recreation, less	

<b>Subject:</b> Noise		<b>Response #:</b> N-2, Quiet
	impact on the resources, much easier law enforcement, and less cost (all of which are nearly accomplished in Alt. C).	
397-3	These areas (Pryors) need to be kept natural and off limits to all motorized vehicles to protect critical wildlife habitat and to provide the quiet solitude that I and many other users seek.	
<b>Summary of Comments:</b> There are concerns about having quiet areas.		
<b>Response:</b> The Human Environment in the FEIS address impacts from noise as an annoyance. Creating new quiet zones as a management area is outside the scope of this analysis.		

<b>Subject:</b> Noise		<b>Response #:</b> N-3, Recreation Opportunity Spectrum
<b>Letter-Comment #:</b> 461-19	Obviously, since there are problems with how the Semi-Primitive Motorized ROS classification was determined, as explained in the section above, then the noise analysis based upon that ROS classification is suspect as well. In addition, the DEIS should have a more specific analysis that values how noise will impact non-motorized recreation opportunities outside of the Wilderness areas and IRAs. Lumping the Primitive and Semi-Primitive Non-Motorized ROS classes together obscures the fact that recreation opportunities are different between Wilderness, IRAs, and other areas. Not all recreationists have the opportunity or ability to travel into the Wilderness area or IRAs. The DEIS should recognize quiet recreation opportunities in these terms, delineating the time it takes to reach these areas from local population centers and the degree of difficulty involved with recreating there. Just stating that non-motorized recreation opportunities represent a specific percent of each alternative does not adequately illustrate these variables, and therefore the DEIS does not adequately analyze the noise impacts on non-motorized recreation opportunities.	
461-20	Finally, measuring noise impacts purely in recreational terms is problematic since noise from motorized recreation affects more than other people’s experiences. It affects wildlife as well. In fact, the DEIS provides some detail for noise and distance in relation to open or forested terrain (DEIS p.3-37), but it does not apply this data in its analysis methodology. Without adequate analysis the DEIS cannot determine the cumulative impacts from other activities. The National Park Service has planned for and modeled natural quiet in some of their units, including the Grand Canyon, Rocky Mountain National Park, Hawaii Volcanoes National Park, and Yosemite National Park. We recommend using the Park Service’s approach to measuring noise impacts. <sup>5</sup>	
<b>Response:</b> The Recreation Opportunity Spectrum (ROS) percent by alternative used to address noise was based on the best available information. Variables of recreational access to non-motorized recreational setting within the ROS categories are difficult to impossible to predict, although it is recognized that they may exist. About 25% of the District is in semi-primitive non-motorized setting where one does not have to access the Wilderness for a non-motorized experience.		
National Park Service modeling for “natural quiet” was not used since data used in these models is not readily available. No matter how long and in what manner one collects soundscape data, there will always be a level of uncertainty because the soundscape is dynamic.		
Noise impacts to wildlife are addressed in Chapter 3, Wildlife section.		

## RECREATION

<b>Subject:</b> Recreation		<b>Response #:</b> R-1, ATV and Motorcycle Trails
<b>Letter-Comment #:</b> 66-161	Evaluations and travel plans should differentiate between ATV and motorcycle trails.	
<b>Response:</b> The 2005 Motorized Travel Rule established designations for both ATV and motorcycle trails. The Forest Service considered the type of vehicle designation on a route-by-route basis and provided a range of alternatives with varied opportunities for different vehicle types. In most cases routes were identified for OHV opportunities where the route is shared by a variety of vehicle types. For detailed information about opportunities proposed in each alternative by vehicle type, please see the FEIS map set.		

**Chapter 5: Response to Comments**

<b>Subject: Recreation</b>		<b>Response #: R-2, Non-Motorized Trails (Wilderness)</b>
<b>Letter-Comment #:</b>		
7-1	I would like to see is an exception for llamas on those trails.	
9-2	If your going to shut down the backcountry to pack animals such as Llamas which are not horse or mule and leave less impact then a human. I would suggest that you don't allow humans to stay over night as well until the areas which you speck of are back to there full natural state.	
15-2	Please reconsider your travel plan to make Lake Fork of Rock Creek a Day Use ONLY Trail for those on horseback.	
17-1	Please consider temporary closures (24 mos) at specific sites. Specifically in alpine or lake areas. (ie: campsites that are overused)	
17-2	Also - consider placing a permanent high line for stock users at a stable spot on the trail before one reaches a lake site & require horse & stock users to walk the remainder of the distance to fish or picnic. (ie: Crow Lake)	
17-3	Allow Outfitters & Guides only specific "use days" and limit the size of the party.	
38-1	The trail to Crow Lake being closed to horse travel. While I do understand the concern of horses denuding the area I do worry about having to leave a live animal and gear 1/2 mile out of site and control. I also do not understand the day use only of Keyser Brown. I believe this would only increase trail travel and not resolve the issue of horse traffic at the lake.	
95-2	I would like to further your restrictions to include all of the Beartooth Wilderness off limits to all horses and stock use. .... Water channels have formed in these horse ruts and further exasperate the problem thus degrading the trail and contaminating our streams with unnatural sediment loads during times of snow melt and surface run-off. ... It is well documented that stock animals area the number one importer of the noxious weed seeds. ... back country camping sites that have had horse/stock use have been 'girdled' and killed by repeatedly tying the animals to them, and the off setting riparian areas are riddled with deep hoof impressions and manure.	
334-6	I have not been the last one half mile up the trail 13B to Crow Lake....Before we close off the complete trail to horses, I would hope we can construct a hitching rail or some type of tie up are for horses, part way up that trail closer to the lake. The main trail 13 is too congested to leave ones horse or horses, behind out of sight and unattended.	
334-7	Trail 2 is too long for a horse day use only, nobody wants to ride 19 miles round trip with out the chance of camping out at all, and what happens if one is caught traveling at night?....In stead of the camp over lock out, we could consider something like a permit system one camp out in the he area per family per year. Your outfitters would probably need to have a more lenient set of rules.	
386-5	Improvements that are needed in Alt. B include: Stock Use...all stock are regarded as having the same impact by the FS, despite the fact that llamas (an increasingly common pack animal) have 1/7 the impact on the land as a horse (as documented in the research). No overnight stock use will be allowed to Mystic, Island, and Princess Lakes up the W. Rosebud, on Lake Fort to Sundance Pass, (incl. Lost L., Keyser Brown, and September Morn L.) from Quinnebaugh to L. Mary, and no stock any time into Crow L. (1/2 mile), to lessen the impact to popular and sensitive areas. First, is this Travel Planning issue, or a Forest management issue? Other ways to mitigate impact would be to reduce number of stock per party (4-6 instead of the current 15); study the areas and determine what is causing the impacts before eliminating one type of user; require that all users follow Leave No Trace principles in sensitive areas; require permits for stock users in sensitive areas.	
389-1	The Absaroka-Beartooths do not lend themselves for a lot of horse use and that is why I do not believe horse use should be discontinued on some of the only limited opportunities. If every trail in the A-B wilderness was total destruction to the wilderness, the amount of area destroyed would still only amount to less than 1 percent of the total area of the wilderness. Having traveled many trails in the wilderness I know that this is not the case. Therefore I can say that all forms of recreation are impacting far less than 1 percent of the total area of the wilderness, which seems to meet the requirements of "acceptable change". I do not believe that eliminating horses on these trails will see any wilderness restored to its original state nor do I believe that allowing horses will more rapidly degrade the wilderness. These are our public lands to enjoy	

<i>Subject:</i> Recreation	<b>Response #: R-2, Non-Motorized Trails (Wilderness)</b>
	and we must remember that humans are a critical part of the environment as well. Please reconsider you plan to eliminate horse use on the aforementioned trails.
400-2	The Forest Service guidelines mandate leaving Crow Lake, Lake Fork, and the West Fork trails open to overnight and day use.
406-1	In reference to the 'day use stock restriction" used in the DEIS on several trails - what does day use really mean? I've heard talk of "trade offs, camping resource damage and etc", but no specifics. I believe CNF is using the travel plan to accomplish Forest Management Planning, which is putting the "cart before the horse." If we are "throwing things to see what sticks" with such a broad brush, I would rather see an advisory panel of volunteers study the actual problem and give recommended site specific long term sustainable solutions, than impose a near permanent (possible flawed) prohibition. The restriction on stock is at best, a delaying of an inevitable, is certainly not equitable (possibly discriminatory) and I don't believe the best solution. On the surface this restriction appears to be an attempt, to manage a user group by unpleasant surrounding circumstances. No camping-why even go, or should we go to another place?
411-1	Define day use on the stock usage on trails more accurately 1b Lake Mary, 2 Lake fork, 2 B Lost Lake, 2D Keyser Brown.
411-3	Has the Custer taken steps to mitigate the problem without closure, such as mitigation, or contacting BCH in the area to help mitigate a potential problem?
411-5	Setting up a full day camp with a tent to prepare a lunch for a group of friends with a fire, with stock tied up. This would be considered an accepted use because it is a daytime use, and this same use would not be acceptable overnight. This is a conflict of a decision.
411-6	Does the CNF have physical evidence (pictures) to show to public the undesirable impacts in these camping areas from stock?
411-7	Does the CNF have info. On the impacts of non-stock user camping in these areas.
411-8	This is a travel plan and it should concern travel on the forest. Camping should be classified as a wilderness management plan.
411-10	Which forest service personal (sic) on the ground decided these areas have problems and what time period was this info gathered?
411-11	Has the CNF shown a steady increase of resource issues over the years? Or have the resources issues remained unchanged or decreased over this time?
411-13	Crow Lake trail #13B. Does the CNF have physical evidence (pictures) to show the resource issues on this trail? Which forest personal (sic) on the ground decided these area have problems and what time period was this info gathered?
411-15	Crow Lake trail #13B. Tying stock up .58 of a mile from the lake has safety concerns.
411-18	Lake Mary. Does the CNF have physical (pictures) evidence to show the public resource issues from camping with stock? Which forest service personal (sic) on the ground decided there were resource issues and at what time period?
411-22	A camping restriction would fall under a wilderness management plan, and trying to over lap with a travel plan restriction is a conflict of interest and cannot be grouped together.
414-1	Alternative B, your preferred alternative, proposes to limit stock use on the Lake Fork trail system (Trails 1B, 2, 2B, and 2D) to "day use only". I have several concerns with this prohibition. First, it seems to me that restrictions on overnight camping would be more properly applied in a Wilderness Management Plan rather than in a Travel Management Plan.
417-3	Alternative B, your preferred alternative, proposes to limit stock use on the Lake Fork trail system (Trails 1B, 2, 2B, and 2D) to "day use only". We have several concerns with this prohibition. First, it seems to us that restrictions on overnight camping would be more properly applied in a Wilderness Management Plan rather than in a Travel Management Plan...We would be pleased to participate in an advisory group to look at the Lake Fork problem and give recommendations for other possible measures to alleviate it before a permanent prohibition to overnight horse use is imposed.
417-4	We also have concerns with the proposed closure of the Crow Lake trail, 13B, to stock use...lets look for other means to solve the problem. Perhaps appropriate stock holding areas could be identified or developed near the lake with stock users required to utilize them.
421-28	Some trails are being closed down to user groups due to damage of the trails and areas just off

**Chapter 5: Response to Comments**

<b>Subject: Recreation</b>		<b>Response #: R-2, Non-Motorized Trails (Wilderness)</b>
	the trails themselves, what has the Forest Service done to alleviate this damage from the horse backers in particular? What is planned to be done to mitigate the problem besides just outright closing the horse trails #2 & 2D? We can understand temporary closures of these areas (example: like camping in one area one year then moving it to another location the following year) to design a plan to mitigate the problem could be necessary. Possibly a 1/2 mile circle around these damage areas.	
421-30	Page 1-3 1.2.6 we do not see any mitigation or see any step that the FS has and should take to mitigate the problem. Like why don't you move the site for camping because the Forest Service sets specific camping sites (when you are talking about 10 miles of trail and there is no other place to camp)...Can we allow a category exemption fro this campground to contain an possible damage from camping or the horse backers?	
421-42	The majority of this area [Map 4, Area 4] is wilderness and non-motorized. All areas should be open for horseback travel.	
483-5	We encourage the Forest to consider other ways to mitigate stock impacts such as reducing the number of stock per party (perhaps 4-6 instead of the current 15); study the areas and determine what is causing the impacts before eliminating one type of user; requiring that all users follow Leave No Trace principles in sensitive areas; and requiring permits for stock users in sensitive areas.	
<b>Summary of Comments:</b> Proposed action related to the non-motorized trails in the Wilderness will not address the resource concerns.		
<b>Response:</b> Mitigation of pack and saddle stock impacts in the Lake Fork drainage and at Crow Lake by restricting pack and saddle stock to day use were proposed in the DEIS. In large part due to comments about the effectiveness of the proposed mitigation, these actions have been dropped from the analysis and will be addressed through other measures outside of this process.		
The Forest generally agrees with comments that there may be more effective and appropriate mechanisms to address the resource impacts associated with holding and using pack and saddle stock, including llamas, in the Lake Fork drainage and in the vicinity of Crow Lake Trail. Consequently, the portion of the purpose and need related to pack and saddle stock impacts contained in the DEIS has been removed from the FEIS and actions associated with "Day Use" pack and saddle stock use have been dropped in Alternative B Modified. The Forest intends to propose site-specific measures in the future to address the resource concerns in the Lake Fork drainage and near Crow Lake (see Appendix E for Opportunities List). All Special Orders currently addressing stock use in the A-B Wilderness remain in place. Finally, should adverse resource impacts arise, temporary closure orders could be implemented to help address the issue if appropriate.		

<b>Subject: Recreation</b>		<b>Response #: R-3, Rock Crawling</b>
<b>Letter-Comment #:</b> 227-3	There are not any rock crawling trail in the Pryor Mountains but there is a lot of potential. Every time I visit there I see lots of canyons full of rocks that would be perfect for 4x4's and there is no one hiking these canyons. Even if we could obtain special use permits for a trail and a set number of vehicles for a certain time period (week or so).	
<b>Response:</b> The public did not identify any specific rock crawling areas in response to scoping for this project. In addition, the IDT did not identify any areas suitable for cross-country vehicle use (see Project Record), including activities such as rock crawling, based on the guidance for assessing motorized use areas associated with the 2005 Motorized Travel Rule.		

<b>Subject: Recreation</b>		<b>Response #: R-4, Looping Trail Opportunities</b>
<b>Letter-Comment #:</b> 68-31	If the Forest Service closes the Piney Creek trail and the network of roads up from Bear Canyon, then it will be more palatable to keep both Graham Trail and Stockman Trail open. If the Forest Service's objective is to make a nice loop for four-wheelers, this recommendation should serve that purpose.	
129-32	Route #2091 is part of a major motorized loop route on the top of Red Pryor and Big Pryor Mountains with many spectacular views. This motorized route (#2091) is supported by the Pryors Coalition.	
155-14	Route 2013 Graham Trail to be closed for public motorized use with the rationale (page C-16)	

<b>Subject:</b> Recreation	<b>Response #:</b> R-4, Looping Trail Opportunities
	of the DEIS that this constitutes a parallel road. This road also becomes another very important loop opportunity for the motorized user and also has historic significance to the area.
156-2	The planned closure of Graham Trail 2013: keeping this open would provide a loop with Stockmen Trail 2850, Trail 2012, the Bear Canyon 2814. Loop trails not only provide a wonderful riding experience, they also allow for less congestion on the trails.
158-2	Please do not close Graham Trail 2013. It loops with Trails 2496, 2850, 2018 and 2011.
158-3	Please do not close Trail 28501A. It loops with 2496, 2850, 2018, and 2011.
158-6	Please do not close Trails 2016 and 20162 off Horse Haven. It loops with 2091 and other trails off of 2091.
341-1	I support Alternative B, because it will be a good mix of opportunities for motorized and non-motorized, with the exception of the following. Planned closure of trails 2016 and 20162. These two trails make a nice loop up the south side of Bear Canyon and connect with 2091. This is a very easy ride for riders of less experience.
419-3	Under the alternative B I have found that the Grahm trail is to be closed for motorized use. This road has a great history and would offer an important loop experience.
420-1	The existence of motorized (OHV) looped trails allows for the greatest dispersal of people, which will enhance experiences for OHV users, walkers, hikers, hunters and any other users. . . . Three trail routes coming off BLM land, going into the BRD land, are on Alternative Plan A but were not included on Alternative Plan B. All three routes provide good looping which will help all users. We feel strongly that the three trails which loop with other trails should be included in the Proposed Plan B. The three loop trails are: -Graham Trail 2013 - Horse Haven (BLM) to 2016 and 20162 - Trail 28501A. Alternative Plan B has the Punchbowl Trail #2144 stopping before it gets to the boundary with the CIR (Crow Indian Reservation). TSATV recommends extending the trail to the CIR boundary with a 50-inch OHV restrictive width on the trail. Trail adoption by TSATV is something we would be very interested in doing. Alternative Plan B does not show trails 20951 and 2091T on its map. We could not find in the DEIS any mention as to why these trails were not included or documentation supporting this apparent decision. Without appropriate information and disclosure of concerns, we feel trails 20951 and 2091T should remain open in the future.
421-6	The creation of quality, quantity, and complete trail designs will best serve all users. Having a large variety of trails and number of trail opportunities allows for temporary closures and trail maintenance with little interruption in use. . . . The creation of looped trails will allow for the greatest dispersal of people as well as enhancing the experience of OHV users, walkers, hikers, and hunters. There is also an enhancement to the safety of users when there is more than one way out, should an emergency occur.
421-51	In Alternative B concerning Route 2013 Graham Trail is to be closed for public motorized use with the rationale (page C-16) of the DEIS that this constitutes a parallel road. This road also become another very important loop opportunity for the motorized user and also has historic significance to the area and runs by a commercial rock quarry which would not be affected by OHV activity or noise. This road allows families to take young members on training rides to increase their skills using motorized means. Though viewed as a parallel road, it still has different view, challenges and opportunities for families and groups. It is also a big loss when considering only 19% of the Bearooth District is available for motorized use.
423-2	Graham Trail #2013 makes loop out of Stockman and Bear Canyon because roads go to the same place hwys etc we don't close them. Trail 28501A loops with trails #2496, #2850, #2018Y #2011 if you go down one trail come back on another one change of scenery. Trail #2095 (Bainbridge) this trail is needed to access trail #20951 I also connects 2850 with 2091. Trail 2091T gives access to the opposite of the canyon as does trail 20951. Trail #20162 if closed would restrict use of trails #2091H4, #2091H3, #2091H and 2016 going into horse haven road it would also eliminate the loop. Trail #2091 should be left open to access Red Pryor Divide Road. Trail #2144 Punch Bowl this trail should be a 50" trail if this trail is closed it would take access to the Forest away. Trails #2073, 2073E should be left open for land owners and public use yearlong if closed access is also gone. Trails #2091 to 2095A and trail 2088 it will give people access in the off season. Trail #27 and Trail #22 should be single track and left open to them there aren't many areas with this designation.
424-2	As far as Alt. B (the preferred alt.) I think Grahm trail #2013 should be left on the map. The

**Chapter 5: Response to Comments**

<b>Subject:</b> Recreation	<b>Response #: R-4, Looping Trail Opportunities</b>
	trail (road) is already in place and offers an alternative route to Stockman Trail and also provides a loop with Stockman and Bear Canyon trails. 2) The planned adm. trail #2095 should be left open for all use as a lower loop with Bear Canyon and #2091. 3) Even though trails 20951 and 2091T dead end they do provide an opportunity for great views on both sides of the canyon. 4) The system roads 2016 and 20162 would be better served as a system trail and provide a opportunity for a loop with the Red Pryor Mtn road #2091 and other trails connected with #2091. These lower roads/trails offer year round access where some of the upper Pryors would be closed due to snow or wet conditions.
427-1	The problem I see with Alternative B is the plan to closure of Graham Trail 2013 along with loops that include Trail 2850 and 2012, 2814 all of which have been open for years without any problems with multi-users. The trail plan for 2095 as administrative only is not acceptable when it is used by all people year round. I would like to see that the last half mile of Trail 2144 be left open to vehicle travel of 50" or loss at this time. I also support the efforts of the TSA TV to adopt that trail and assist Forest Service in obtaining grants for these areas.
429-1	If you do alternative B then you will have to keep trails 2013, 2850, 2012, 2814, and 28501A and trails that make loop 2496, 2850, 2018, 2011, these need to stay open.
430-1	The trail that are important to me is the Graham Trail 2013 This is a loop trail that I take my friends on! This is a rock base trail and have great vista points! Also Robinson Draw open with all trail on Alt A
431-1	Trail 2013, 2850, 2012 Bear Canyon 2814. I enjoy riding my ATV in this area & I have been going to this area for years & I also enjoy camping there. (2) 28501A with loops 2496, 2850, 2018 & 2011 I enjoy riding in this area because I'm too old to hike. (3) 2095 I enjoy driving & camping in these areas (4) 20951 & 2091T - again I'm at the age where I can't walk very good & I enjoy using my ATV on these trails. (5) 2016 & 20162 with loops 2091 - again I'm of the age that I can only get around with an ATV. On Last 1/2 Mile of Punch Bowl trail 2144 again this needs to be a loop, not in one way & out. I recommend 50" or less motorized travel & support Treasure State ATVs efforts to adopt the trail.
432-1	I believe and want all of the loop trails open in Trail #2013, #2496, #2850, #2018, #2011, #28501A, #2091. I also would like trail #2095 (Bainbridge Draw), Trails #20951 & #2091T, #2016 & #20162, #2073, #2073E, Meyers Trail 27, & Lodgepole Trail 22. The Trails #2091 & #2095A, #2088 open year long. I would like Punch Bowl Trail #2144 open, & let the Treasure State ATV & other 4 x 4 clubs adopt this trail to assist in keep it out.
438-9	Recommendation made under Alternative B concerning Route 2013 Graham Trail to be closed for public motorized use with the rationale (page C-16) of the DEIS that this constitutes a parallel road. This road also becomes another very important loop opportunity for the motorized user and also has historic significance to the area.
489-4	Graham Trail 2013 - I would like to see this remain open due to the fact that it loops with the Stockman Trail 2850, Trail 2012, and Bear Canyon 2814. This is a nice ride with ATV and the loops create a better environment to keep over-use of the trails and subsequent erosion due too much concentration of motorized vehicles in one locale rather than many alternative loops.
489-5	Trail 28501A - As above, this trail loops with 2496, 2850, 2018, and 2011. Nice trail loops for motorized users and more opportunity for a wider selection of loops helps to keep travelers less concentrated and provides for a better recreational experience and less impact on the trails.
489-7	Trails 2016 and 20162 off Horse haven - These trails provide loops with 2091 and other trails off of 2091 and in keeping with my feelings about over concentration of users in any one area and not providing loops just creates more of an environmental footprint in the area. By having loops, the users only have to cross the area once so their impact is less than if they have to turn around and go across it twice in the same trip.
490-4	Graham Trail 2013 - I would like to see this remain open due to the fact that it loops with the Stockman Trail 2850, Trail 2012, and Bear Canyon 2814. This is a nice ride with ATV and the loops create a better environment to keep over-use of the trails and subsequent erosion due too much concentration of motorized vehicles in one locale rather than many alternative loops.
490-5	Trail 28501A - As above, this trail loops with 2496, 2850, 2018, and 2011. Nice trail loops for motorized users and more opportunity for a wider selection of loops helps to keep travelers less concentrated and provides for a better recreational experience and less impact on the trails.
490-7	Trails 2016 and 20162 off Horse haven - These trails provide loops with 2091 and other trails

<b>Subject:</b> Recreation		<b>Response #:</b> R-4, Looping Trail Opportunities
	off of 2091 and in keeping with my feelings about over concentration of users in any one area and not providing loops just creates more of an environmental footprint in the area. By having loops, the users only have to cross the area once so their impact is less than if they have to turn around and go across it twice in the same trip.	
<b>Summary of Comments:</b> Provide motorized looping trail opportunities.		
<b>Response:</b> Motorized loop opportunities would be available in varying degrees in each of the alternatives. Alternative A would provide the maximum number of loop opportunities; Alternative C would provide the least amount. The No Action Alternative, and Alternatives B and B Modified would provide differing amounts between the amounts in Alternatives A and C.		

<b>Subject:</b> Recreation		<b>Response #:</b> R-5, Game Retrieval
<b>Letter-Comment #:</b> 67-3	Game Retrieval. If carts are okay, why not motorcycles and ATV's in certain conditions. Why not within 300 feet of trails as with camping?	
155-13	Route 2073 and all of 2073E (page C-15) of the DEIS only allows for administration use even though there is a legal means of access. Opportunity needs to be given for the public to use these roads. Game retrieval and the need for a diverse opportunity for the motorized needs to be met.	
214-1	Page 1-6: Game Retrieval: We are not asking for cross-country retrieval, but retrieval should be allowed on routes closed during hunting season,...	
421-37	Under Alternative B concerning portions of Route 2073 and all of 2073E (page C-15) of the DEIS only allows for administration use even though there is a legal means of access. Game retrieval and the need for a diverse opportunity for motorized needs to be met, By opening these roads it would allow for this.	
<b>Response:</b> The Forest is not proposing to designate roads or trails for any motorized game retrieval. In a June 30, 2006 letter to Forest and Grassland Supervisors, the Regional Forester for Region One of the Forest Service, Gail Kimball, provided guidance that stated, "Travel off route for big game retrieval is not recommended and must have Regional Forester approval prior to initiating any proposals that consider off route use for this purpose". No extraordinary circumstances have been identified that warrant proposing motorized cross-country game retrieval on the District, consequently designation of motorized big game retrieval is not being proposed. The use of non-motorized game carts for game retrieval would not be affected by this proposal, and use would continue to be allowed outside of designated Wilderness areas.		

<b>Subject:</b> Recreation		<b>Response #:</b> R-6, Recreation Opportunity Spectrum
<b>Letter-Comment #:</b> 66-11	Please explain why the needs of non-motorized recreationists are provided for at a much higher level (quality and quantity) than motorized recreationists?	
66-13	Each route must be evaluated on the basis of whether it will see more use as a motorized route or a non-motorized route and then the appropriate decision should be made on that basis.	
66-41	Resource allocation must include access to an equal number of quality recreational opportunities including alpine lakes, rivers, streams, and overlooks.	
66-42	In order to be equitable, recreational resource allocation between wilderness/non-motorized visitors and motorized/multiple-use visitors should be based on equal ratios. Indicator ratios should include acres of wilderness/non-motorized areas divided by wilderness/non-motorized visitors and miles of wilderness/non-motorized trails divided by number of wilderness/non-motorized visitors versus acres of motorized/multiple-use areas divided by motorized/multiple-use visitors and miles of motorized/multiple-use trails divided by number of motorized/multiple-use visitors using the number of multiple-use and wilderness visitors from the references cited above.	
66-43	A reasonable approach to the assessment of equal recreational opportunity would use a comparison of acres and miles of trails per non-motorized visit versus acres and miles of trail per motorized visit. An equal number of acres and trail miles per visit should be the goal but the current management scheme is not achieving this goal.... In order to be responsible to the public, we request that the preferred alternative address this disparity and reverse the trend by managing all of the project area as motorized multiple-use.	
66-57	A reasonable test of significance of impacts from motorized closures on motorized recreationists must be used. A reasonable test would include evaluation of indicators	

**Chapter 5: Response to Comments**

<b>Subject:</b> Recreation	<b>Response #: R-6, Recreation Opportunity Spectrum</b>
	including... We request an adequate evaluation and consideration of these imbalances be made part of this project and actions taken that will correct these imbalances.
66-60	The amount of use that a route receives is not a criterion for non-motorized routes (see later comment about solitude on CDNST) and should not be a requirement for motorized routes. Solitude, challenging, and remote motorized routes are highly valued by motorized recreationists also.
66-75	We request that the difference in visitor use between designated wilderness/non-motorized/exclusive-use lands and multiple-use lands be acknowledged and adequately addressed in the evaluation. We also request a motorized recreation alternative with a recreation opportunity spectrum (ROS) comparable to the surrounding ROS available for non-motorized recreationists be adopted as the "proposed action".
66-84	We request that the analysis adequately evaluate the type and quality of experiences that motorized visitors enjoy and want maintained in the area.
66-121	We request that adequate consideration be given to a comprehensive inventory and analysis of all non-system roads and trails and the current recreational opportunity that they provide to motorized recreationists.
66-133	Therefore, motorized recreational opportunities are limited to a set number of designated motorized routes while non-motorized recreational opportunities can include cross-country travel opportunities and are, therefore, unlimited. This distinction has not been adequately recognized and we request that this distinction and advantage be recognized in the analysis, formulation of motorized alternatives and decision-making.
66-145	We request that the analysis and decision-making avoid restricting motorized access and recreation opportunities to narrow corridors along major roads.
66-157	The analysis and decision must recognize that semi-primitive motorized opportunities are the highest quality and most sought after experiences.
106-1	Alternative B is woefully inadequate in curtailing damage by ORVs. It is not a balanced plan because it gives two-thirds of the Pryor over to ORVs and other motorized activities. It allows ORV traffic to continue on unauthorized routes that do not meet Forest Service design standards.
129-23	The Recreation data show that significantly more forest users recreate by walking than by OHV. Given these facts one would expect that the Forest would choose an alternative which does not significantly decrease non-motorized opportunities in favor of motorized opportunities. Yet the Forest's Preferred Alternative B decreases non-motorized recreation opportunity by nearly 15%, and increases motorized recreation opportunity by over 11%. This is especially surprising since Alternative C still provides more than half (53%) of the USFS Pryors for motorized recreation. (See table 3-16, page 3-30)
146-1	I am concerned that Alternative B for managing motorized use for the Pryor Mountains will cause further environmental degradation. Of those presented, I strongly support Alternative C as the best hope for restoring balance between motorized use and less environmentally damaging pursuits such as hiking, bird and wildlife watching, and horseback riding.
155-5	When evaluating the Recreation Opportunity Spectrum (ROS) (Page 3-18 of the DEIS) the interdisciplinary team should consider giving the motorized users the greatest spectrum of opportunity possible as fifty-five percent of the District already lies with the Absaroka-Beartooth Wilderness.....
156-6	...as many trails and roads as possible within the 19% must be made available for OHV use.
163-10	Alternative A is unacceptable... Why would 75% of the Pryors be designated for motorized management when only 2.9% of the users are OHV recreationists.
163-14	Alternative B is also unacceptable... Why would 63% of the Pryors be designated for motorized management when only 2.9% of the users are OHV recreationists?
206-2	Would it be accurate and truthful to say the non motorized users would just have to SHARE that percent of land they call a "loss" with motorized users? And specifically, only that land the trail actually exists on, as the motorized user still stays on a trail and a hiker has 100% access to all of that and all land through which a motorized trail passes?
214-8	With the large majority of the Beartooth area closed to motorized use the Pryors should emphasize motorized use.
214-10	Alternative A: Provides a good balance of motorized vs. non-motorized opportunities. For a

<b>Subject:</b> Recreation	<b>Response #:</b> R-6, Recreation Opportunity Spectrum
	motorized to achieve the same satisfaction as a non-motorized user more miles of route are required.
232-1	<p>I favor the least access of OHV's to the Pryors for the following reason,....1. OHV prices have been declining precipitously in the last three or so years, as Chinese-built OHVs, China-sources parts, an the attending price-competition to Canadian-, Japanese- and US built OHVs has sharply decreased prices: in some cases prices are cut by 60%. No PhD is statistics is necessary to predict the doubling or tripling or sales this decrease portends. I owned and operated a Honda motorcycle/OHV/scooter store in Tacoma WA from 1968 until 2003: I know what I'm talking about on this one. 2. The increasing "infirmity" of the US populations, caused mostly by a sedentary "life-style" and over-eating causes more and more persons to choose OHVs for their " wilderness adventure" because they do not have or desire the physical conditioning to walk ANYWHERE, and (continue the slothfulness) aren't about to walk where they can ride. The "entitlement" this self-inflicted infirmity confers to vehicular access has adversely affected hunting: landowners (I'm one, have a third-generation ranch at Luther MT) no longer allow hunting because of OHV-borne hunter abuse to terrain and game. Same abuses as you're seeing in the Pryors: destroyed signs, erosion, trampling, ruts, cut fences, illegal trespass ("streaking") on posted ground, and the impossibility of apprehending offers. Something about the power, speed, wheels, and roadless spaces just seems to bring out truant behavior in a lot of males. I have experience either negative effects of this truant behavior fist hand, and work closely with the MT FWP enforcement officer on this, with small effect: There's only one Kevin Nichols, and hundreds of OHVs and thousands of acres, and 'way more outlaws than the OHV crowd claims. 3. The increasing age of the US populations further suggests increased OHV usage, for the same reasons outlined in (2) above. 4. The increased population of (primarily) Billings and Yellowstone county suggests more OHV will be available to "further negatively impacts" (bureaucrateeze for "trash") the Pryors.</p>
274-1	The "preferred" alternative B, which allows motorized access to two-thirds of the land in the Pryor Mountains, is definitely not balanced use, especially when the Forest Service's own statistics indicate only about 4 percent of the recreational use in the Beartooth District is ATV use while nearly 50 percent is hiking and other non-motorized use.
288-5	Non-motorized Recreation Opportunity decreases from 33,913 acres in the No Action Alternative to 28,849 acres in Alternative B. This is a decrease of 5,064 acres, which is 14.9% of 33,913 acres. Decreasing from 43% to 37% of total (motorized and non-motorized acreage) is much more than a 6% decrease in the acres available for non-motorized users. This data clearly supports the choice of Alternative C as the Preferred Alternative.
307-20	In the Gallatin Forest ROD, Supervisor Heath indicated that even a 50/50 split between motorized and non-motorized use was uneven in favor of motorized users. Why then does the Custer Forest find 2/3 motorized split in the Pryors fair and acceptable?
353-2	Motorcycle and ATV users lost 97% of their riding areas in the tri-state agreement with the BLM and Forest Service in 2001. Further limiting the land available for motorcycle and ATV usage is unfair to the 29% of Montanans who participate in these activities.
396-18	The Pryors are an area that should be left open to motorized uses as it currently is. There are already thousands of acres of non motorized area available to non motorized users to the west in the Absorakee/Beartooth wilderness that is virtually the same distance from Billings which is the closest large metropolitan area where many users originate. The Pryors represent the only area in the CNF that provide somewhat of a balance between motorized and non motorized users. Without motorized use in the Pryors, the CNF would be mostly non motorized.
396-20	There has not been serious options of significantly expanding areas to motorized use to satisfy the ever increasing amount of motorized users.
416-5	In addition to the resource protection issues mentioned above, the Preferred Alternative (B) does not adequately provide a range of recreational opportunities. Specifically it does not provide for the diverse range of nonmotorized recreation activities commensurate with the majority of Forest users who want those opportunities now and in the future. The Preferred Alternative does not designate ANY non-motorized areas or routes. The claim that this Travel Plan decision is about motorized use and not about non-motorized use is disingenuous.
421-49	We believe the Custer should look at the numbers and side on keeping what little we have

**Chapter 5: Response to Comments**

<b>Subject:</b> Recreation	<b>Response #: R-6, Recreation Opportunity Spectrum</b>
	access to open for all to enjoy. 80% Quiet use should be more than adequate for the number of users they have and the increased growth of OHV activity. By looking at these numbers, OHV users do not have an equitable access to the CNF. So we ask for the Custer to bring forward a better plan than the Forest Services Preferred Alt B. By our calculations from the numbers above, OHV only have access to 20% of the forest. Within that 20% we still only have very little area that the OHV are able to use, therefore we are asking for more access under the 2005 Travel Plans to meet everyone's needs.
461-16	Yet in the Affected Environment – Recreation section, ML 2 roads are left out of the semiprimitive motorized ROS classification even though the guidelines stated above clearly provide for their inclusion. In fact, the definition provided in the Beartooth DEIS states, “Semi-Primitive Motorized settings extend about one-half mile on each side of a trail where motorized OHVs are legal to be used.” (emphasis added) (DEIS, p.3-21). With this definition the Forest Service arbitrarily excluded all roads from the semi-primitive motorized ROS classification, thereby providing an artificial evaluation of effects for the entire recreation analysis in violation of NEPA. At the very least, each ML 2 road should be identified, and an explanation given why it does not fall within the semi-primitive motorized ROS classification. Until these corrections are made, the Custer NF cannot adequately determine the cumulative impacts of the alternatives.
461-86	We are concerned that the DEIS did not adequately analyze the negative impacts to the quiet recreationists’ experience from motorized use.
467-2	In conjunction with Alternative C’s route network, we request that the Custer National Forest incorporate a Recreation Opportunity Spectrum (ROS) zoning approach into the alternative to more effectively secure conservation and quiet-use enclaves and, additionally, build into all of the alternatives robust travel management plans - whose contours are detailed below - to complement the travel designations
467-29	We have particular concerns that the preferred alternative does not adequately meet the visitor use projections, especially in the Pryor Unit. The current preferred alternative, B, designates 63 percent of the unit for motorized use in the ROS classification system. Alternative C designates 53 percent of the unit for motorized recreation, yet this still will give over half of the unit to motorized users who will constitute only 7.9 percent of visitors by 2018. No alternative was developed that accurately reflects the visitor use projections; comparing two alternatives that are only 10 percent apart in motorized use designations is not meeting the National Environmental Policy Act requirement to analyze a full range of alternatives.
<b>Summary of Comments:</b> Many commenters were concerned about the balance of motorized and non-motorized opportunities, consideration for future use projections and the methodology used.	
<p><b>Response:</b> The FEIS analyzed a range of motorized and non-motorized opportunities, especially in the Pryor Unit. This analysis included an alternative intended to represent an emphasis on motorized opportunities and one intended to emphasize more non-motorized opportunities. In addition, two alternatives, Alternative B and B Modified, tend to serve as compromises between the two primary preferences for more motorized opportunities and those for more non-motorized opportunities.</p> <p>The FEIS uses the Recreation Opportunity Spectrum (ROS) as the <i>indicator</i> of acres available for motorized and non-motorized recreation opportunities. The ROS analysis of the alternatives in the FEIS was based on guidance in the National ROS Inventory Mapping Protocol. The analysis relied on identification of existing and proposed travel routes as the basis for establishing the ROS settings for each alternative. The analysis used GIS-generated acreages associated with motorized and non-motorized settings to aid in determining effects. The analysis does not use the sub-categories under motorized and non-motorized settings (i.e. semi-primitive motorized, rural, primitive, etc.) to make effects determinations. This is one reason that Maintenance Level 2 roads were classified as roaded natural, rather than split into semi-primitive motorized and roaded natural, since this level of detail was not directly relevant to the analysis. In addition, maintenance level 2 roads do not fit well into the semi-primitive motorized category, because state motor vehicle law requires vehicles on roads to be highway legal. The semi-primitive motorized category is generally associated with use by off-highway vehicles, or vehicles that are not highway legal. Further information about ROS and this methodology is contained in the Recreation section of Chapter 3.</p> <p>The percentage of the Pryor Unit in motorized ROS settings by alternative does not mean that those acres would be managed solely for motorized recreational uses. They also provide opportunities for non-motorized recreation and</p>	

<b>Subject:</b> Recreation	<b>Response #:</b> R-6, Recreation Opportunity Spectrum
access for a broad range of activities.	
Some of the suggestions listed in the above comments, such as land zoning, are outside the scope of this analysis. Please see Appendix G Actions Outside the Scope of the Decision, and Chapter 2 Alternatives Dropped from Further Consideration for more details.	

<b>Subject:</b> Recreation	<b>Response #:</b> R-7, Route #22 (Lodgepole) & #27 (Meyers Creek)
<b>Letter-Comment #:</b> 25-4	Horsemen have used and do use this area and there is absolutely no reason motorcyclist need to be banned in order for horsemen to be encouraged to use this area.
32-2	This is an area that should be available to hikers/horseback riders/hunters as non-motorized trails only.
33-1	I agree with Alternative B & C for Lodgepole and Meyers Creek areas. As former landowners, then annual visitors, and now current leasees of property bordering on both Lodgepole and Meyers Creek area since 1975, my family holds sacred the continued remoteness and quiet of the wilderness areas in question. These areas are no place for motorized vehicles; the noise, air pollution and general disturbance of the vehicles change the complexion of one of the most beautiful spots in the state (and country), not to mention the negative impact on important elk migration and all the high quality wildlife habitat these areas provides. Closing these areas to vehicle traffic would also provide a much-needed non-motorized area for hikers/horseback riding and hunting.
65-1	I wanted to cast my 2 cents worth in support of either Alternative B or C for the Lodgepole Meyers Creek Areas. The best case scenario would be to close it completely to motorized traffic to minimize impact on game habitat and yet keep it available to access for foot traffic and horse traffic to the more remote areas to the north.
97-2	Route #22 and Route #27 are proposed to be closed to motorized, these two routes are the only single track routes in the Custer Forest (to my knowledge) and BIAS is being shown as these routes will "provide additional opportunities for pack and saddle stock use". Is not the "Wilderness Area and Wilderness Study Area large enough for them? There are no proposed new routes for the ATV and the "jeep" use.
132-4	Closing trails should not be your mission. With the dirt bike sport growing, more trails should be opened. Route 22 and Route 27 are the only single-track trails. If you have not ridden single track, there is nothing like it. Keep these trails open to motorized vehicles to our neighboring forest.
155-11	Single track trails Meyers Creek (trail#27) and Lodgepole (trail#22) need to be reassessed for the following reasons. In the entire Beartooth District these are the only single track motorcycle trails available.
156-5	Planned closure of Meyers Trail 27 and Lodgepole Trail 22 to Single Tracked Motorized Travel: This is the only single track motorcycle trail available in the Beartooth District.
158-12	Please do not close Meyers Trail 27 and Lodgepole Trail 22 to Single Track Motorized Travel; they are the only trails open to single track users in the Forest District.
190-1	These two trails are #27- Meyers Creek and #22 - Lodgepole. The main reason given is due to the interruption of the game migration patterns. Do you have documented studies of this? If so we would like to see these studies and over how many years have they been done? The reason for our or my concern is that the authorized use of these trails as well as others had been going on for 50 years. The use of these trails has not produced user conflict or created resource damage. The use of these trails by motorcyclers has been to produce that Forest outdoor experience while not being subjected to other forms of motorized use.
214-2	More opportunities for single-track motorcycle trails should be readdressed and allowed.
299-1	It is our understanding that the Custer National Forest Service preferred Plan B is to delete these two trails from areas that allow motorcycle usage. The trails cover a total of less than eight miles but are very valuable to continued motorcycle use in the Custer National Forest. The trails also provide access to additional motorcycle trails in the Gallatin National Forest. If these two trails are closed, Gallatin National Forest has indicated they will close the trails that connect with Trails 22 and 27, further limiting access in the National Forest.
347-2	Finally, by closing the Meyers Creek and Lodgepole Trails to motorcycle use will limit access

**Chapter 5: Response to Comments**

<b>Subject:</b> Recreation	<b>Response #: R-7, Route #22 (Lodgepole) &amp; #27 (Meyers Creek)</b>
	to valuable motorcycle trails in the Gallatin Forest. This access allows for extensive riding in the Gallatin that cannot be reached any other way. If these trails are closed, the Forest Service is threatening to close even more riding in the Gallatin Forest.
348-3	Finally, by closing the Meyers Creek and Lodgepole Trails to motorcycle use will limit access to valuable motorcycle trails in the Gallatin Forest. If these trails are closed, the Forest Service is threatening to close even more riding in the Gallatin Forest.
349-2	Finally, by closing the Meyers Creek and Lodgepole Trails to motorcycle use will limit access to valuable motorcycle trails in the Gallatin Forest. These trails allow motorcyclists to access trails that are some of the few still open to motorcycles.
351-2	However of major concern to me is the closure of Meyers Creek and Lodgepole Trails. These are great motorcycle riding areas and one of the few areas still open to motorcyclists. More importantly these trails allow us to access the trails in Gallatin National Forest.
352-3	In addition, I believe that the Meyers Creek and Lodgepole trails must be left open to allow continued access to more trails in the Gallatin Forest Area.
353-4	Finally, by closing the Meyers Creek and Lodgepole Trails to motorcycle use will limit access to valuable motorcycle trails in the Gallatin Forest. This access allows for extensive riding in the Gallatin that cannot be reached any other way. If these trails are closed, the Forest Service is threatening to close even more riding in the Gallatin Forest.
354-3	I would also strongly encourage you to keep the Meyers Creek and Lodgepole areas open to motorcycle usage. For those of us who use these trails, they are invaluable in a state where less and less public land is open to motorcycle usage. We also need them to remain open in order to access other trails in the neighboring Gallatin Forest.
362-6	Closing the Meyers Creek and Lodgepole Trails to motorcycle use will limit access to valuable motorcycle trails in the Gallatin Forest. If these trails are closed, the Forest Service will likely close even more riding in the Gallatin Forest.
396-16	Meyers Creek area (Lodge Pole #22, Meyers Creek #27) that are open to motorized use are proposed to be closed by the plan. I highly object to closing these two trails to motorized use because they are the only motorized trail opportunities available in an area that lies adjacent to thousands of acres of non motorized wilderness.
396-17	The new travel plan in the Gallatin National Forest closes the adjoining trails in the GNF on the rationale that the Custer National Forest was closing the trails that lie within the Custer. This was a bogus rationale because at that time the Custer had not even began the travel planning process. Myself and a few other users pursued this issue with the Gallatin NF employees and eventually met with then Supervisor and Assistant Supervisor Becky Heath and Jon Allen who admitted that the rationale used for closing the connecting trails on the Gallatin side because the Custer was closing their side was a mistake on their part. Becky Heath wrote a letter to us that was also forwarded to your office that stated that the Gallatin National Forest would reconsider those trails (#22, #27) as motorized loop opportunities dependant upon if the Custer National Forest would reciprocate. ...Would this letter carry any weight in influencing your decision regarding these two trails?
412-1	Meyers Creek trails (please note that when we say "trails" we are writing about motorized routes that can include roads) #27 & #22. These are the only two motorcycle specific trails in the entire District and as such should be maintained as motorcycle trails.
420-5	The planned closure of Meyers Trail 27 and Lodgepole Trail 22 to single track motorcycles is a concern. Although ATV's do not use these trails, we do have members who also ride single track machines. Due to the limited single track mileage in the Beartooth Ranger District, the closure of these historically used trails is of concern. We are not aware of user conflicts on these trails. Seasonal closures for elk migration and hunting appears to be a reasonable solution.
421-17	All trails in this area should remain open as single-track trails for activities under the 50" class rating. The Meyers Creek single-track trail going from the Custer National Forest into the Gallatin is the only identified motorcycle trail and should be allowed to remain this way. Meyers Creek trail #27 & 22 create a looping opportunity to connect with the trail system back to Iron Mountain for a enjoyable loop and also connect to the Galliton (sic) and you can come out in Big Timber.

<b>Subject:</b> Recreation	<b>Response #: R-7, Route #22 (Lodgepole) &amp; #27 (Meyers Creek)</b>
421-29	Trail 22 is also used by horseback riders and should be allowed to remain this way. This area should be used as a single-track area for all activities falling under the under 50" class rating and dual use. The proposed closure to the horseback riders on trail 2 & 2D, we would like to keep these trail's open to horse backers. This trail connects with trail 1 for a loop opportunity and to connect with good fishing lakes and hunting areas.
431-3	I want trail 27 & Lodgepole trail 27 open all Motorized travel. I could support seasonal closure for Elk migration & Hunting
438-1	The proposed conversion of Route #22, Lodgepole Trail and #27 Meyers Creek Trail to non-motorized use is not supported with documentation and scientific rational for the change. Motor Vehicle Route and Area Designation Guide, National OHV Implementation Team V111705, page 26 states: Purpose and Need. Changes to the forest transportation system are evaluated as site-specific proposal. Each proposed action required a site-specific statement of purpose and need, which should be narrowly tailored to the proposal. The statement of purpose and need should enumerate the rational for the site-specific changes being proposed. Chapter 3, page 94 refers to 'reduce risks to water resources' by closing the trail to motorized travel, Table 3-31, page 86 shows "Lodgepole Creek, Maintain and monitor". The attached appendix A contains two water quality studies conducted in other areas to be added to the discussion on last paragraph, page 3-82. While they were not conducted on the area in question or in Montana, the conclusions and management actions taken show area closure is not the answer to the possible risk to the water resources and Your Appendix C page 16, offers two different rationales: 1. "Provide additional opportunities for pack and saddle stock". Our comment: With 345,000 acres of the Absaroka-Beartooth Wilderness Area lying within the District it would appear the opportunities already exist in abundance. If there is a need for more pack and saddle stock opportunities, it should be supported by documented monitoring of actual usage in the area. 2. 'Reduce disturbance to wildlife habitat and provide a non-motorized hunting experience'. Comment on the non motorized hunting experience: Documented objective evaluation and monitoring of the hunting areas must substantiate the need for more non motorized hunting experiences. If that need is proven, a restriction on these trail during hunting season would be reasonable mitigation
450-1	Please do not close Myers creek and Lodgepole trails, myself and my kids deserve a place to ride now and far into the future.
482-3	Meyers Ck, Lodge Pole, Lakefork, East of Bear Creek, Horse Haven, Nicoles Ck and Line Ck are all good trails for motorcycles and should remain open or be enhanced to permit fourwheelers.
489-9	Meyers Trail 27 and Lodgepole Trail 22 - I would like to see these trails left open for single track users since these are the only single track trails in the district. Seasonal closures for elk migration and hunting may be acceptable subject to accurate data.
490-9	Meyers Trail 27 and Lodgepole Trail 22 - I would like to see these trails left open for single track users since these are the only single track trails in the district. Seasonal closures for elk migration and hunting may be acceptable subject to accurate data.
496-1	This letter is in regards to the proposed Beartooth Ranger District Travel Management proposal and specifically authorized motorcycle trails #27-Myers Creek and #22-Lodge Pole.... I am opposed to this proposed closure.
<b>Summary of Comments:</b> Some want Trail 22 and Trail 27 designated for motorcycles, other would like to have these trails available for non-motorized use only.	
<b>Response:</b> Alternative B Modified proposes that Lodgepole Trail # 22 and Meyers Creek Trail #27 remain designated for motorcycle use. A season of use of 6/15 to 12/1 annually would be placed on the trails. The season of use would address wildlife concerns associated with the trails. This proposal would then address wildlife concerns, provide opportunities for non-motorized recreationists to use the trails when motorized vehicles would be prohibited, and provide opportunities for motorcycle use. In addition, these routes would provide linkages to motorized routes on the adjacent Gallatin National Forest.	

**Chapter 5: Response to Comments**

<b>Subject: Recreation</b>		<b>Response #: R-8, Motorized Single Track Trails</b>
<b>Letter-Comment #:</b> 30-2	More trail designations means more mile for non street legal machine riding.	
66-8	Therefore, it is a reasonable alternative to designate all existing single-track trails on multiple-use lands within the project area open to motorcycle use.	
66-9	Single-track challenge trails are needed for expert riders and trials type motorcycles.	
66-50	If light use is being used as a criterion to close motorized routes, then it would also seem fair to convert non-motorized trails that see light use to motorized routes in order to address the concern of over-usage and shortage of motorized routes. We ask for your consideration of this reasoning.	
66-58	Existing single-track trails or potential single-track trails were not adequately identified and included in the project.	
66-59	There is no legitimate reason why the single-track trails in the multiple-use areas of the project should not be shared between motorized and non-motorized recreationists to a much greater extent. This reasonable alternative must be included.	
66-76	The evaluation needs to distinguish the difference in trail requirements and impacts between atvs and motorcycles and use that difference to justify keeping more single track trails open to motorcycles.	
<b>Summary of Comments:</b> Would like more single track motorized trail opportunities.		
<b>Response:</b> Analysis of single track trails for mixing motorized and non-motorized uses outside of Wilderness has been completed (see Project Record). No additional mixed use single track trails were identified.		

<b>Subject: Recreation</b>		<b>Response #: R-9, Winter Designation</b>
<b>Letter-Comment #:</b> 66-163	Winter ATV riding has become very popular and winter ATV areas should be considered as part of the proposed action.	
<p><b>Response:</b> Over-snow vehicle (ex: snowmobile) use is not a part of this proposed action. The 2004 Beartooth District Travel Management Proposal included proposed changes in the restrictions on over-snow vehicle use. Public comments on over-snow use were limited in scope and general in nature. The majority asked that the restrictions not be modified to allow an additional 69,000 acres of over-snow vehicle use. The few other comments that addressed over-snow vehicles indicated that all public lands should be open to all types of motorized vehicles including snowmobiles, and that the analysis needs to evaluate different types of motorized use, including snowmobiles, separately. No comments requested specific areas for over-snow vehicle use. One comment suggested specific areas that should be closed to over-snow vehicle use, which included the Red Lodge Creek and Palisades areas; however it did not provide clear resource, cultural or social rationale for why these areas should be restricted.</p> <p>The interdisciplinary team reviewed the existing snowmobile management direction in the Custer Forest Plan, the 2007 Lynx Decision, and information in the 1987 Beartooth Travel Plan. The team also reviewed current use and determined there were no specific resource issues with existing use. Based on this information, the interdisciplinary team recommended to the Responsible Official that over-snow vehicle use be dropped from the proposal, because there was no resource-related need for change from the existing use. The Responsible Official reviewed the situation and determined it was appropriate to drop over-snow use from the proposal. If an action alternative is selected, the 1986 Forest Plan, as amended, will be used as the foundation for regulating over-snow vehicle activities.</p> <p>The public has indicated that better signing is needed along Highway 212 so that over-snow vehicle operators are aware of the boundaries of the Highway 212 corridor and do not inadvertently stray outside of the corridor. This action is outside the scope of this proposal, but Forest Service staff have noted this need and will consider this during future project planning and for potential grant requests.</p>		

<b>Subject: Recreation</b>		<b>Response #: R-10, Route #2144 (Punchbowl)</b>
<b>Letter-Comment #:</b> 155-12	Route 2114 Sage Creek (Punchbowl area) (page C-18) of the DEIS does not allow motorized traffic to extend to the forest boundary with the Crow Reservation. I recommend that from the existing water trough to the forest boundary be limited to the fifty inch motorized traffic only. This would limit heavy traffic from this area but still allow a means to gain access to the limit of the forest.	
163-13	The Punchbowl should be non-motorized for wildlife and quiet recreation.	

<b>Subject: Recreation</b>		<b>Response #: R-10, Route #2144 (Punchbowl)</b>
421-52	The Sage Creek trail, route 2114 (Punch Bowl) does not allow motorized traffic to extend to the forest boundary with the Crow Reservation. A recommendation from a local ATV club, Treasure State ATV, would be to extend the trail from the existing water tank to the forest boundary but with a limit not to exceed a 50 inch wheel base. This would limit heavy traffic but still allow access to the limit of the forest. Treasure State ATV has also expressed an interest in adopting this area of the trail to insure it is maintained to a high standard.	
<b>Response:</b> Alternative B Modified proposes designation of the eastern most ½ mile of Punch Bowl for less than 50 inch motor vehicles contingent upon mitigation of the erosion/soils issues. No other alternatives were changed from the DEIS to the FEIS concerning this route.		

<b>Subject: Recreation</b>		<b>Response #: R-11, NVUM</b>
<b>Letter-Comment #:</b>	Your data shows, both nationally and locally, that OHV visits are a very small fraction of overall Forest visits, and you project, in Table 3-15, a DECREASE in the fraction of use from 2.9% of visits to 1.8% of visits by OHV users by 2018. Yet you say this: The trend information presented above suggests that growth in both motorized and non-motorized activities is predicted to be essentially the same. The information also suggests that there is possibly a greater volume of users seeking non-motorized activities than motorized activities, but that the projected rate of increase in volume is anticipated to be nearly the same for both activities. This suggests that there may not necessarily be an obvious, dominant future demand for one or the other types of activities. This also suggests that providing considerably more opportunities for one or the other activity would not necessarily be responsive to the public as a whole, but that there is demand for a broad range of opportunities. (3-33) That conclusion, according to your own data, is simply false. In fact, the use that is growing most rapidly, and which already is far more important than any other activity except walking (according to the same table 3-15), is wildlife viewing, which you eloquently describe this way: "Viewing' encompasses hearing coyotes or elk or sharing a trail with the tracks of a bear or wolf." (Table 3-14). Alternative B means sharing a trail with the track of an ATV.	
47-3		
66-36	Based on our estimate that 41% of the visitors are OHV recreationists, we estimate using the NVUM data for total visitors that the total number of OHV visits to the Custer National Forest is 748,500 = (850,000 x .41).	
66-37	The agency does not observe visitors on weekends and holidays and consequently is unaware of actual visitor usage. The agency simply needs to go out and count the different recreationists and mode of access on multiple-use lands on any weekend.	
66-38	We feel very strongly that the current approach and data used by the agency to represent the historic public use of multiple-use lands does not provide an accurate representation and that the table of observations above is a more reasonable representation.	
67-18	Recreational Trends. NVUM "survey data shows that OHV use is a specialized use of the forest and not a major recreational use for most forests." This statistic has been interpreted completely wrong as evidenced by our observations. The agency has no site specific data that would back this statement up.	
97-3	The Forest Service has failed to provide a viable survey to show actual usage of the Custer Forest areas. I did an informal survey and it showed 249 days spent recreating ("jeep" trails) from 24 members that were present at our November mtg. If this is even close to being accurate, your numbers are not.	
155-3	...the economic effects of the forest area are so skewed that when trying to formulate an opinion on how the Pryor's are being used makes the information presented unusable. The NVUM information on economic analysis and activity participation used (kovis et al. 2003) was from total district forest numbers which does not in any way depict economic impact generated from motorized recreation use in the Pryor's.	
214-4	table 3-3, pages 3-6&7 should be broken down, showing use in the Pryors and use in the Beartooth area.	
214-7	Table 3-15, page 3-29: Is not complete it excludes hunting projections, which are a good percentage of the forest use.	
307-19	The NVUM data shows that from 2.9 to 3.163% of total recreational use in the Custer National Forest is OHV use. 47.8% of Forest use is hiking and walking. Dedicating 2/3 of the Pryors to motorized use is not in line with these statistics.	

**Chapter 5: Response to Comments**

<b>Subject:</b> Recreation	<b>Response #: R-11, NVUM</b>
387-16	A survey conducted by the Beaverhead Deerlodge National Forest shows that less than 3 percent of the forest users recreate in wilderness areas. There are more exclusive non-motorized/wilderness areas and trails (both quality and quantity) than OHV areas even though NVUM statistics for all national forests show that there were 8,602,000 wilderness visits and 239,415,000 multiple-use visits or 3.59% wilderness and 96.41% multiple-use ( <a href="http://www.fs.fed.us/recreation/programs/nvum/revised_vis_est.pdf">http://www.fs.fed.us/recreation/programs/nvum/revised_vis_est.pdf</a> ). It stands to reason that this information on the BDNF would apply to the other National Forests in Montana.
387-20	Motorized use on public lands is the fastest growing type of recreation in the U.S. today. The USDA Southern Research Station validated the growing popularity of OHV recreation in their Recreation Statistics Update Report No. 3 dated October 2004 ( <a href="http://www.srs.fs.usda.gov/trends/RecStatUpdate3.pdf">http://www.srs.fs.usda.gov/trends/RecStatUpdate3.pdf</a> ). This document reports that the total number of OHV users has grown to 49.6 million by the fall 2003/spring 2004 out of a total population of 214,022,000. Therefore, the overall percentage of OHV recreationists in the country is 23% and it is much higher in Rocky Mountain States often approaching 30%.
411-24	Page 3-7 estimated no. of visits for horse back riding was 2,275 visits. Who conducted the survey and analysis to arrive at this no.? Does the CNF have these survey sheets to back up this info and names of the people surveyed? Where were these monitoring sites set up and when were they conducted before August of 2003? Are they're (sic) any other dates that monitoring and surveys occurred after August 2003 for this economic and visitor data in this DEIS?
420-6	We question the reliability and usefulness of the NVUM in general. With an 80 percent confidence level there was a +/-25.6 percent visitor factor. The NVUM data on the Custer Forest level would indicate, when rolled into the national NVUM, the national NVUM is in question. Any use of the national NVUM data in reverse would make forecasts and other analysis even more questionable.
421-1	The Custer Forest Service has been unable to supply projected usage figures as to the breakdown of the different types and numbers of users in the Pryor Mountains. Based on observations by previously identified user groups of the Pryors, OHV recreation could easily comprise 80-90% of current usage.
421-23	How many times were we surveyed by the FS? (Us - Clubs) We received a impromptu survey done by the one of the local OHV clubs of its members. It found that the average of the clubs own members were using the trail systems 249 of the 365 days a year. This is only one club. With this information, it counters the graphs used in the DEIS as being viable information. With this information, it counters the graphs used in the DEIS as being viable information. If they are not accurate, how can we justify using the information given in the DEIS. We know that a great deal of time and effort went into creating the DEIS, but we do not feel it accurately addresses all user groups. With this in mind, we do not feel that the 2005 Travel Rules are not being met under the mitigation of the increase in OHV users and the non-motorized users do not have a trail system they need for the aging community.
438-3	The NVUM figures are not representative of the areas addressed in the DEIS. The NVUM studies were conducted on the entire Custer National Forest at various locations. The results are not quantified by Mountain Range, Forest District or even county.
461-18	This suggests that there may not necessarily be an obvious, dominant future demand for one or the other types of activities.” (DEIS 3-31). This conclusion is not supported by the accompanying statistics, considering that not only do the visitor use numbers show that far more visitors engage in hiking than in OHV use in the present, but also that an 8% increase of 271,866 hiking/walking visits (an additional 21,749 hikers/walkers) is significantly larger than a 7.9% increase of 16,494 OHV visits (an additional 1303 OHV visits). Looking at the projections for non-motorized use, it is clear that such activities will continue to dominate future use, and in order to minimize user conflicts, the preferred alternative should reflect this fact. We have particular concerns that the preferred alternative does not adequately meet the visitor use projections in the Pryors Unit. No alternative was developed that accurately reflects the visitor use projections; comparing two alternatives that are only 10 percent apart in motorized use designations is not meeting NEPA’s requirement to analyze a full range of alternatives.
467-28	DEIS Table 3-15 shows that OHV use was 2.9% versus 47.8% for hiking/walking in the Custer National Forest's 2003 National Visitor Use Monitoring Report. The table also projected OHV use to increase 7.9% by 2018 while hiking/walking would increase 8.0%. In regard to these

<b>Subject:</b> Recreation		<b>Response #: R-11, NVUM</b>
	projections, the DEIS states, "The information also suggests that there is possibly a greater volume of users seeking non-motorized activities than motorized activities, but that the projected rate of increase in volume is anticipated to be nearly the same for both activities. This suggests that there may not necessarily be an obvious, dominant future demand for one or the other types of activities" (3-31)." The conclusion here seems arbitrary and capricious considering that an 8% increase of 271,866 hiking/walking visits is significantly larger than a 7.9% increase of 16,494 OHV visits.	
<b>Summary of Comments:</b> Question the reliability and usefulness of the NVUM data used.		
<b>Response:</b> The Forest Service does conduct work activities on the weekend, and during weekdays, and observes visitor use during these times. However, these incidental observations are not formal survey work and relying on this information for effects analysis is not likely to be supportable. Formal survey work, such as the NVUM, is a more reliable set of information for making effects determinations, and represents the best available information.		
The National Visitor Use Monitoring protocol is designed to be repeated every 5 years. The survey dates, times, and places are assigned to sample visitors on a random basis and capture a range of use levels at different sites across the Forest. The schedule is assigned to the Forest by the national working group. The interviews conducted are voluntary on the part of the participants and confidential regarding identity. The activities and their participation rates are for the Custer National Forest. No further breakdown of this information to portray use at the Ranger District level or to show use differences between the Pryor and Beartooth units is available. The limits associated with the "snap shot" of data available from our 2002 sample are recognized. Describing existing condition or trend did not rely on this information alone, but a variety of sources were used to provide a rounded look at recreation trends. Please refer to Chapter 3: Recreation for the full discussion of visitor use data and trends.		

<b>Subject:</b> Recreation		<b>Response #: R-12, Route #2088 (Shriver Peak)</b>
<b>Letter-Comment #:</b> 129-34	1. Routes #2088 on Big Pryor Mountain should be converted to a non-motorized trail. It causes considerable negative impact on resources and non-motorized recreation, without great gain to motorized recreation.	
163-12	Route 2088 should also be closed to protect resources and provide a quiet area NW from Crater Ice Cave.	
288-1	We urge that if adopting Alternative C do not allow the two track route #2088 to extend miles into the heart of the Big Pryor North Hiking, Riding and Resource Protection Area. We urge the FS to preserve this area for quiet recreation and wildlife. Route #2088 should not be open to motorized use west of Crater Ice Cave.	
315-1	Alternative C should be adopted but only if it is modified to limit the extension of two-track route #2088. Instead of extending this route for miles into a quiet and sensitive wilderness area please consider limiting #2088 so there is no motorized use west of Crater Ice Cave.	
403-4	Also Route #2088 should not be open to motorized use into the Big Pryor North Hiking, Riding, and Resource Protection Area. Keep this area for the quiet users including wildlife.	
441-1	Trail #2088 should not be open to motorized use because it runs deep into the Big Pryor North Hiking Riding, and Resource Protection Area. Motorized use risks resource damage and diminishes opportunities for hikers and stock users.	
<b>Summary of Comments:</b> Route #2088 should not be designated for motorized use.		
<b>Response:</b> Alternative B Modified would not designate a 2.2 mile section of Shriver Peak Road to the west of Crater Ice Cave and east of the junction with 2095A to reduce potential impacts to cultural resources. This would indirectly address desires to have additional non-motorized recreation opportunities in this area. The remainder of the route would be designated with a season of use restriction to provide access to Crater Ice Cave, range improvements, and motorized recreation opportunities.		

<b>Subject:</b> Recreation		<b>Response #: R-13, Congestion</b>
<b>Letter-Comment #:</b> 2-2	But don't be closing all these little turnouts people use, because it will cause major congestion....	
31-1	I support Alternative A. When I look at the difference between Alternative A and B I see the future issue of overuse. You will have less trails with more people riding each year. When I use the trails now I can ride for several hours without seeing a lot of people. Thus not as much use on the existing trails and also less damage. I have used these trails a lot over the years and	

**Chapter 5: Response to Comments**

<b>Subject: Recreation</b>		<b>Response #: R-13, Congestion</b>
		rarely see hikers. I believe they have every right to be there as do the horsemen but so do I.
133-1		In my opinion, too many trails are being closed. If you close all of these trails, you will unnecessarily over crowd the trails left open. Will this not cause more problems? Route 22 and Route 27 are proposed to be closed to motorized vehicles. Route 2013 2850 and 2850B are needed to, like I stated before, keep the trails from overcrowding. And Route 2091, why can't we get within 300 feet of the Potential Impact Area? Your reasoning for closing many trails is the lack of "camping opportunities". When we ride, we cover 50 to 75 miles per day. We do not intend to camp on the trails.
193-1		It would be just great to leave all roads open as they are now. If two roads are parallel going to the same destination that helps to keep the roads from getting congested. Lets not close one of these type of roads!
213-2		...reducing the numbers of trails and roads would not be in the best interest of either area. Having a number of trails available is best, less erosion, less damage to the trails.
224-1		Of the 4 Alternatives offered I prefer Alternative A for the North Beartooths, which includes most of the current system and non-system roads. Leaving as many roads open to vehicle travel as possible provides the most recreational opportunities, which will reduce concentration of vehicles in one areas as well as illegal off-road travel.
237-1		I support opening more land to multiple use. Limiting the area for motorized use will only concentrate the users to a smaller area and increase changes of damage. If people are allowed to spread out then changes for any problems will be decreased.
396-7		Typically I will only encounter one or two other users on a trail, usually within a short distance from the trailhead. This amount of use has a very minimal effect on the forest resources. This could change with the new plan because the ever growing number of users would be restricted to a much smaller area, resulting in the definite possibility of severe overuse. Why would the CNF which to concentrate motorized users to just a few areas?
403-3		In addition we also support identifying Route #2492 as non-motorized. By so doing the travel plan would separate motorized and non-motorized users traveling up the ridges above Bear Canyon. This would reduce the motorized congestion at the mouth of Bear Canyon and through the entrance, and help preserve the peace, quiet, and habitat.
412-8		Parallel roads and Trails #2013, 2092B, 2097B, 2097C, 2850B - These do provide increased access as the DEIS Alt. B states, but they provide recreational diversity and opportunity if a effective trail system is to be implemented. The need for a diverse trails system that allows users to spread out away form one another is highly necessary for the District maintain an effective trail system. Just as parallel hiking trails spread out high traffic and maintain a different experience for the user these parallel trails do the same. The parallel trails listed also provide a variety of loop opportunities where shorter loops would not be available otherwise.
421-43		This is the only area [Map 4, Area 4] represented on this map with multiple use areas. All available trails on this section should remain open and accessible. These existing roads and trails are used as dispersing sites and are needed to combat crowding.
<b>Summary of Comments:</b> The fewer number of motorized routes will increase the number of people on the available routes.		
<b>Response:</b> There is insufficient existing information to determine if the action alternatives would have substantive, specific effects on motorized recreation congestion. The number of motorized routes miles for each alternative can indicate if there is any <i>potential</i> for the alternatives to have effects related to congestion relative to the No Action Alternative. Based on miles of motorized routes, Alternative A (341 miles) has <i>potential</i> to reduce congestion related impacts, Alternative C (198 miles) has <i>potential</i> to increase congestion related impacts, and Alternative B (261 miles) and B Modified (267 miles) would result in a slight chance to increase congestion, but are not likely to change congestion conditions relative to the No Action Alternative (287 miles). See the Recreation section of Chapter 3 for more detailed discussion of this subject.		

<b>Subject: Recreation</b>		<b>Response #: R-14, Route #28501A (Timber Canyon)</b>
<b>Letter-Comment #:</b> 155-15		Route 28501A located on the west side of the Pryor's...If in fact this road is proposed for closure it will be one more instance where a motorized experience will be lost. Having traveled this route many times it gives a total different visual backdrop to this area as when using on either side.
		Trail #28501A is a needed trail for winter motorized access because the trails #2850 & 2496

<b>Subject: Recreation</b>		<b>Response #: R-14, Route #28501A (Timber Canyon)</b>
412-3	can become impassible and dangerous in middle to late winter because of snow drifts. Also each trail provides a different vantage point while maintaining a loop opportunity for short or long excursions for motorized users. This trail also connects an open BLM road to the FS and would cause confusion if closed at the FS boundary.	
421-35	In Alternative B concerning Route 28501A located on the east side of the Pryor's was not listed in the DEIS (page C-16) as a road or trail to be designated for public motorized use. If in fact this road is proposed for closure it will be one more instance where a motorized experience will be lost. Having traveled this route many times it gives a total different visual backdrop to this area as when using routes on either side. We ask the Forest Service to reconsider the Alt A plan and to do the analysis of the plan to keep this looping trail open.	
438-10	Recommendation made under Alternative B concerning Route 28501A located on the west side of the Pryor's and not listed in the DEIS (page C-16) as a road or trail not to be designated for public motorized use but still not shown on the Alternative B map. If in fact this road is proposed for closure it will be one more instance where motorized experience will be lost.	
<b>Response:</b> This route is analyzed for designation under Alternative A. Under other action alternatives, this route was considered a parallel route in close proximity to Stockman Trail # 2850, and was not proposed to be designated for motorized use.		

<b>Subject: Recreation</b>		<b>Response #: R-15, Area Designation</b>
<b>Letter-Comment #:</b> 66-160	Provide open or play areas for motorized recreation opportunity and trials bikes where acceptable in selected areas.	
421-46	We need an area outside of the Sage Creek Camp Group for young children to have a play area to ride their OHV, we need 5 to 10 acres for this. Also the Ben Bow area needs remain open riding area as it is now!	
<p><b>Response:</b> The 1987 Beartooth Ranger District Travel Management Plan identified two areas where cross-country motorized vehicle travel was permitted, which are typically referred to as the Benbow and Picket Pin/Iron Mountain areas.</p> <p>The 2001 Tri-State OHV Decision amended “the nine forest plans listed in Table 1.1 and establishes a new standard that restricts yearlong, wheeled motorized cross-country travel, where it is not already restricted.” Table 1.1 identifies the Custer National Forest 1987 Forest Plan. (The Forest Plan included original language that prohibited cross-country vehicle travel.) The 2001 Tri-State OHV Decision states that, “the actual application of the decision will be through activities on each of the Forests and Grasslands affected. This will include a CFR order signed by each Forest/Grassland supervisor eliminating cross country vehicle travel.”</p> <p>The Forest Supervisor signed Forest Order No. 01-08-01 in response to the 2001 Tri-State OHV Decision. The Forest Order prohibited motorized cross-country vehicle travel.</p> <p>Because the 2001 Tri-State OHV Decision and the Forest Order prohibit cross-country vehicle travel on the Custer National Forest and no exemption was made for the Benbow and Picket Pin/Iron Mountain areas, there are no current motorized cross-country vehicle areas on the Beartooth District.</p> <p>Given the above information, to designate a motorized cross-country vehicle area on the Beartooth District, the District/Forest would need to propose and analyze any areas prior to designation.</p> <p>The preamble to the 2005 Motorized Travel Rule indicates that designated areas “would have natural resource characteristics that are suitable for motorized vehicle use or would be so significantly altered by past actions that motor vehicle use might be appropriate.” The existing natural resource characteristics of both areas suggest that they are not suitable for motorized cross-country vehicle travel (i.e. area designation), including: the presence of Yellowstone cutthroat trout (a sensitive, management indicator, and key species), perennial streams, cultural resources, alpine vegetation, riparian zones, and endangered species habitat. These areas were not formerly “significantly altered by past actions”, including mining, vegetation management, natural disasters, or other activities such that they are suitable for motorized cross-country vehicle travel.</p>		

**Chapter 5: Response to Comments**

<b>Subject: Recreation</b>		<b>Response #: R-16, Route #2308B (Dry Head)</b>
<b>Letter-Comment #:</b> 129-35	The Forest’s proposal to close the Dryhead Loop route (32308B) Alternative B would be a good modification of alternative C. The Cultural reasons are compelling.	
281-1	I support Alternative C but with the following improvements. In Alternative B seasonal closures as proposed are well selected. This proposal from Alt. B would be a good addition to Alt. C on routes open to motorized use. Another one of the improvements that need to be made to Alt. C is the closure of Road #2088 to use of motorized traffic west of Crater Ice Cave. This route should be converted to a non-motorized trail to the west of Crater Ice Cave. I would also like to see the closure of Dryhead Loop route #2308B included in Alt. C for culture reasons.	
288-9	We urge the Forest's closure of the Dryhead Loop route (#2308B) in Alternative B, and would like that same closure in Alternative C. The cultural reasons are compelling.	
334-1	Your choice of Alternative B here has too many roads for vehicles; we really don't need to drive everywhere. The Alternative C would be a better choice to save the out back type of environment, even though it retains the short loop road 2308B, at the Dry Head Overlook; this short road should not be abandoned as you show in Alt. B. The overlook is one the main attractions of the Pryors.	
<b>Response:</b> Alternatives B and B Modified in the FEIS propose that Road #2308B not be designated for public motorized use to address cultural resource concerns. Alternatives A and C propose designating the route for public motorized use. The route would be available for public motorized use under the No Action Alternative.		

**SAFETY**

<b>Subject: Safety</b>		<b>Response #: SA-1, Congestion</b>
<b>Letter-Comment #:</b> 66-29	There is also a significant public safety aspect associated with squeezing everyone into a small area as accidents will increase with too many motorized recreationists on too few routes. We request that these significant issues be adequately addressed.	
66-77	The management trend of closure after closure is concentrating recreationists into smaller and smaller areas. The cumulative negative impact of the closure trend will either produce more impact than allowing use of the existing roads and trails or squeeze us completely out from public lands. There is also a significant public safety aspect associated with squeezing everyone into a small area as accidents will increase with too many motorized recreationists on too few routes. We request that these significant issues be acknowledged and adequately addressed. We also request that the trend of wholesale closures be reversed so that public land can be managed using the most sound natural and human environmental principles.	
74-5	The action of closing existing trails (both on and off Alternative A) would cause more erosion and safety problems by creating heavier use on the remaining trails.	
75-2	Please do not close any trails in the Beartooths, it simply cause more congestion in other areas that remain open, which is dangerous	
<b>Summary of Comments:</b> Reducing the number of motorized routes will increase congestion on remaining routes.		
<b>Response:</b> There is insufficient existing information to determine if the action alternatives would have substantive, specific effects on motorized recreation congestion. The number of miles of motorized routes for each alternative can indicate if there is any <i>potential</i> for the alternative to have effects related to congestion relative to the No Action Alternative. Based on miles of motorized routes, Alternative A (341 miles) has <i>potential</i> to reduce congestion related impacts, Alternative C (198 miles) has <i>potential</i> to increase congestion related impacts, and Alternative B (261 miles) and B Modified (267 miles) are not likely to change congestion conditions relative to the No Action Alternative (287 miles). See the Recreation section of Chapter 3 for more detailed discussion of this subject.		

<b>Subject: Safety</b>		<b>Response #: SA-2, Mixed Use</b>
<b>Letter-Comment #:</b> 68-33	Children are more apt to have ATV accidents, to drive off road and to behave in a manner that is dangerous to others. . .Children, young teens, are more likely to drive off designated roads. I disagree with the Forest Service assessment that designating roads for motorized mixed use would be a low risk to public safety, page 3-192	
461-69	The DEIS states, “[a]n engineering analysis has not been completed for the roads designated for motorized mixed use in each alternative. The engineering analysis would be completed	

<b>Subject:</b> Safety	<b>Response #:</b> SA-2, Mixed Use
	once the decision has been made to designate for motorized mixed use,” (p. 3-191). It would seem that in order to properly evaluate potential user conflicts, and the potential for injury, the engineering analysis would be needed during the NEPA process, not once a the decision is made. We urge that before designating any mixed use roads, that an engineering analysis be completed and incorporated into the environmental analysis.
<b>Response:</b> An engineering mixed use analysis is complete (see project record) and is incorporated into the Record of Decision.	

<b>Subject:</b> Safety	<b>Response #:</b> SA-3, Road, Motorized Trail and State Law
<b>Letter-Comment #:</b> 68-35	What specifically do I want the Forest Service to do? Not to provide a trail system for underaged drivers.
163-6	The underage driver provision is a concern for public safety reasons. A 12 year old who's passed a safety course is quite different from a five year old who hasn't. Yes, I have seen a five year old driving a small ATV. Do not allow drivers on Forest roads, trails, travelways or whatever who do not meet state standards of age, safety certification and adult presence.
262-4	All motorized vehicles licensed and driven by licensed drivers only on roads and designated trails. Why should this be any different on the Forest than our other public streets and roads? Our safety is still at stake.
268-4	All motorized vehicles driven by licensed drivers only on roads and designated trails.
307-4	Allowing under-aged drivers on public land would be a tremendous safety hazard both to the drivers as well as the public.
307-6	Allowing uninsured vehicles on Forest Service routes is lawsuit waiting to happen.
382-1	Any changes to the existing Off Road Vehicle laws or regulations either implicit or explicit, that would result in children under the age of 16 operating off road vehicles in areas where such actions are now prohibited will result in increases in the deaths and injures of said children.
386-21	Another issue that is not discussed much in the '07 DEIS is the designation of roads as motor vehicle trails. Supposedly, this innocent change in designation would allow less cost to FS road management. But the real impact comes in allowing unlicensed drivers and unlicensed vehicles. (This kind of sleight of hand by the CNF is historically what ruins trust by the public). Why would the CNF promote such liability and increased hazard?
406-7	I reference this web site about minors riding OHV's/ATVs' ( <a href="http://atvsafetynet.org/news.php?page=pr">http://atvsafetynet.org/news.php?page=pr</a> ) and want CNF to study it before making any more decisions. It will be obvious why I'm so displeased and objectionable to CNF's creative attempt to circumvent the Montana state laws.
415-1	I am deeply disturbed by the changes Custer National Forest (CNF) is proposing in vehicle and driver licensing requirements, and I am astonished by CNF's apparent perception that these are minor or inconsequential changes. Not all of these changes are adequately disclosed in the DEIS, and when they are, inadequate and irrelevant explanations are given. None of these changes have their consequences adequately analyzed.
415-2	A. Clear disclose the proposed action. B. Thoroughly analyze both the positive and negative consequences of the proposed action. C. Carefully explain the legal authority for the proposed action either under Montana Motor Vehicle Law, or the legal authority for not applying Montana law.
415-3	The DEIS clearly discloses the proposal to allow unlicensed vehicles. The DEIS fairly adequately, although minimally, discloses the proposal to allow underage drivers (12 to 16)....Since no action allowing VERY underage drivers was disclosed in the DEIS, the consequences of such an action were not analyzed. The comments above regarding underage drivers of course apply - but much more emphatically....There is nothing in the mission of the USFS that suggests any reason to "provide motorized recreational opportunities" for 7 year olds.
415-4	According to the above quotations from the DEIS unlicensed vehicles will be illegal on all roads and motorized trails on the Forest including those on the MVUM where the first

**Chapter 5: Response to Comments**

<b>Subject: Safety</b>		<b>Response #: SA-3, Road, Motorized Trail and State Law</b>
	quotation above will be printed. How can the Forest claim they will "not deviate from State law" and still allow unlicensed vehicles in violation of State law under which "the vehicle must be registered with a valid license plate"?	
415-5	Allowing VERY underage drivers (under 12 years old) would be a blatant violation of Montana State traffic law.	
415-6	Furthermore CNF needs to explain the legal authority by which "motorized trails" escape State law. If State traffic law does not apply then what traffic law does apply on "motorized trails"?	
418-7	What earthly good can be accomplished by allowing unlicensed drivers and vehicles on the Forest? For public safety, CNF should clearly state underage driving will not be allowed.	
461-71	In addition, the Custer NF asserts that Montana traffic laws do not apply to Forest Service trails. We question this assertion. Motorized trails open to all motorized use may fit within the definition of a "public highway." This is especially true given that Montana state law states that a "way of the state open to the public" is "any highway, road, alley, lane, parking area, or other public or private place adapted and fitted for public travel that is in common use by the public." MCA Sec. 61-8-101(1).	
<b>Summary of Comments:</b> Concerned the Forest Service is not following State Laws related to licensing requirements by designating motorized trails.		
<b>Response:</b> The Forest Service defers to State Law in regard to operation of vehicles on roads and trails. State laws related to roads fall under: <i>Montana Code Annotated, Title 61. Motor Vehicles</i> . State laws related to trails fall under: <i>Montana Code Annotated, Title 23 Parks, Recreation, Sports, and Gambling, Chapter 2 Recreation</i> .		
The Forest Service believes that both motorized roads and trails are legitimate and appropriate uses of the national forests. The travel planning process was designed to analyze the effects of all modes of travel, compare the relative merits and trade-offs of reasonable alternatives and ultimately determine where the opportunities for those uses could be provided. The Record of Decision documents the Forest Supervisor's conclusions about the various issues and the rationale for making his choice for a Travel Management Plan.		

<b>Subject: Safety</b>		<b>Response #: SA-4, Emergency Access</b>
<b>Letter-Comment #:</b> 421-8	Due to the inevitability of accidents and emergencies such as fires and human injuries, it is important to have allowable trails, roads, and access points for safety.	
<b>Response:</b> This concern was taken into account in all action alternatives. In addition, administration considerations were made when determining which routes remain for administrative use.		

**SEASON OF USE**

<b>Subject: Season of Use</b>		<b>Response #: SOU-1, Pryor Unit</b>
<b>Letter-Comment #:</b> 30-3	If Alternative B is chosen would a possible June 1st opening for seasonal roads and trails be considered.	
31-3	Proposal A already has a lot of road less area in it. The trails should also be open June 1st. The forest service information states this would be the time of the least damage. Waiting until June 15th gives us two less weeks of riding a summer.	
66-148	We suggest that the number of different closures periods should be kept to a maximum of two, if possible, in order to avoid confusion and resulting misunderstandings.	
66-158	Implement seasonal closures, where required, with input and review by OHV recreationists that will: (1) provide the maximum amount of OHV recreational opportunity during the summer recreation season in order to disperse all forms of trail use and thus minimize impacts to trail users; (2) provide winter OHV recreation opportunities in low-elevation areas that are not critical winter game range; (3) provide OHV recreation and access during hunting season by keeping major roads and OHV loops open while closing spur roads and trails necessary to provide reasonable protection of game populations and a reasonable hunting experience; and (4) provide OHV recreation opportunities during spring months in all areas where erosion and wildlife calving conditions reasonably allow.	
66-159	The number of different closures periods should be kept to a maximum of two, if possible, in	

<b>Subject:</b> Season of Use	<b>Response #:</b> SOU-1, Pryor Unit
	order to avoid confusion and resulting misunderstandings.
67-10	Seasons of use. If conditions warrant, there should be some flexibility to extend or reduce the season otherwise the most conservative dates are chosen and the public loses access for a significant amount of the year.
68-6	The Forest Service lacks the data to make decisions on seasons of road closure in the Pryors. The Forest Service has no data on snow pack, snow melt, precipitation for the Pryors except two years of precipitation data at Gooseberry Hollow collected after the Red Waffle Fire. The RAW Station, Wild Horse, at extreme northwest corner of the PMWHR was pulled out perhaps in the 1980's Extrapolating data from the Beartooths and Bighorns to substitute for the Pryors leads to erroneous assumptions. The extrapolated data used to determine season of use is not presented in the DEIS.
68-8	Recommendation: For Pryor Mountain Road, 2308, from junction with Crooked Creek Road to the PMWHR and for the Commissary Ridge Road, 2092, open on 25 May each year to have the roads open by Memorial Day weekend. My recommendation for the section of Pryor Mountain Road 2308 from Dryhead Vista to the PMWHR is to open the road on 25 May each spring to be consistent with rest of 2308. Indicate the designated roadbed. Post a warning that when wet or covered with snow the road may be impassible. Warn that drivers must stay on designated road.
68-9	My concern is that prior to the melting of the Jove's Ravine snowdrift people try to circumvent the drift by driving off road to the south. As they do so, they not only tear up the road embankment but also drive over <i>R. jovis</i> plants, which are still on the Forest Service's list of sensitive plants. Closing the 2308 until 25 May each year will eliminate this circumvention.
68-12	Because there is no justifiable reason to keep this section of 2308 closed after May each year, the Forest Service will have many people unhappy with Forest Service Rules.
68-13	Pryor Mountain Road from Dryhead Vista to the PMWHR: Often the roadbed is not evident so people drive in one of the many parallel roads. The advantage of closing the road until June 15 is that by then the roadbed is evident. However, because of the sponge like nature of the soil, the road can become mucky anytime it rains. This forested section does get more precipitation. As the roadbed dries, the ruts harden and remain. The end result is that the road throughout the summer is deeply rutted and difficult to drive until the edges of the ruts are beaten down in August after a long dry spell. The road is always going to be deeply rutted; that is the nature of the soil. Keeping this road closed even past 15 June will not prevent the muckiness and deep rutting.
68-17	Commissary Ridge Road: By the time the Jove's Ravine snowdrift has melted, the road down Commissary Ridge is free of snow. No snowdrifts accumulate on this portion of the Commissary Ridge road... There has been no damage to the roadbed over the years and no parallel roads. By Pryors standards it is a very good road that holds up well without maintenance. The road down Commissary Ridge can be opened by 25 May.
68-19	It makes sense to extend the seasonal closure of the roads to the end of hunting season. Even during hunting season with the early snowstorms and freeze-thaw the higher elevation roads become too muddy to be traveled.
68-23	If kept open, Island Ridge road should be open June 15 through April 1 as proposed in Alternative B. This would allow the road to dry and Commissary Creek to recede before vehicular traffic is allowed.
74-3	The Pryors have a drier climate and trails should only be closed in March and April for the snow melt. Yet, the Alternative B for the Pryors closes trails for snow melt/run off until June 15, based upon conditions in areas that are much different than the Pryors.
97-8	Most roads in the Pryors do not require closure from April 15 through June 15th. Historical information will prove that snow melt occurs mostly from the first part of April till the mid to the end of May. After May 1st there is little to no rain, other than very brief showers.
124-16	The seasonal closures (April 15 to June 15) are too short to protect vegetation resources. This should be changed to December 1 to July 1.
129-8	The seasonal closures as proposed in alternative B are mostly well selected (except for those routes which we do not believe should be motorized at all). The resource protection value of these restrictions is high. One exception is that the seasonal closure on Stockman Trail (#2850) should extend 1/4 mile south of the junction with trail #2492 due to the braided Stockman Trail

**Chapter 5: Response to Comments**

<b>Subject:</b> Season of Use	<b>Response #:</b> SOU-1, Pryor Unit
	caused by earlier abuse.
129-9	The short two-month closure (April 15 to June 15) is insufficient to protect the resource. The seasonal closures should be from December 1 to July 1 as proposed in the Forest's 2004 proposal.
129-33	2. The seasonal closures as proposed in alternative B are mostly well selected. These would be a good addition to Alternative C on these routes that are open to motorized use. The resource protection value of these restrictions is high. One exception is that the seasonal closure on Stockman Trail (#2850) should extend ¼ mile south of the junction with #2492 due to the braided Stockman Trail caused by earlier abuse. The short two-month closure (April 15-June 15) is insufficient to protect the resource. The seasonal closures should be from December 1 to July 1 as proposed in the Forest's 2004 proposal....The damage was caused by motorized abuse of a muddy road in early March. This shows that the seasonal closures should begin long before April 15.
132-3	Closing the trails from April 15 to June 15 is unrealistic. With our weather pattern, most snow is gone by the end of April or first part of May.
133-2	And closing trails from April 15 to June 15 is also unnecessary.
155-7	I feel seasonal restrictions being proposed under Alternative B are excessive for the Pryor range. Both these mountain ranges exhibit different patterns of how and when precipitation is garnered thru the year and I don't feel information gained from these sites can accurately predict what happens in the Pryor Range.
155-8	I feel a better alternative to this proposal would be closure from April 1st to May 20th which would in my personal opinion would give the mountain range plenty of time to dry out sensitive areas and also give the motorized community more of the prime time of spring to enjoy recreational opportunities.
156-4	I support the recommendation made by the Treasure State ATV for the dates to be changed to April 1st to May 20th. Weather and precipitation patterns have indicated these earlier dates would still allow the range to dry out, thus lessening the possibility of damage, while providing the motorized community a chance to enjoy the spring season of riding.
158-9	Please consider changing seasonal closure April 1st to May 20th as proposed by the Treasure State ATV rather than closures April 15th to June 15th.
161-39	Alternative B, Agency preferred alternative, opens high elevation roads in the Pryors from 6/15 to 4/14. (Table 2-3, pg.2-15). The document also stipulates in the Table 2-6 on page 2-19, open dates of 6/15 to 12/1, for the 60 miles of Pryor High Elevation Roads and trails. Thus, there appears to be a conflict in the Timing Restrictions presented in the DEIS. I personally favor 6/15 to 12/1 open dates. Following the review of the responses, this difference must be sorted out. Closing roads from 4/15 to 6/15, for the rationale given in the DEIS, is totally unrealistic and unacceptable.
161-4	The normal wet season, for the upper elevations in the Pryor's, is November through June. This is the period when the roads are most vulnerable to damage by rutting and by "user created" by-passes of snow drifts or wet pot holes.
161-5	Sage Creek #2308, and Crooked Creek #2085...the closure location should be at lower elevations on these main roads.
163-16	Seasonal closures are an improvement but they should last from the first of Dec to the end of May.
191-4	Seasonal closures should be from December 1 to July 1 to allow muddy conditions to dry and to keep drivers from going around snowdrifts, creating more muddy tire tracks.
262-3	Closure of the seasonal trails when actually affected by the muddy season. Over the years, this period of time has started earlier in the winter and spring due to the warmer temperatures. Please reconsider the dates from April 15 to June 15 to December 1 to July 1. These dates more accurately fit the true "muddy season" and comply with the Forests' 2004 proposal.
268-3	Closure of the roads when affected by the muddy season. Over the years, this period of time has started earlier in the winter and spring due to the warmer temperature. Please reconsider the dates of these road closures to fit the true "muddy season" and to avoid more off-road scars.
273-2	I would also suggest that the seasonal closures proposed in Alternative B be added to Alternative C, and modified to meet the 2004 timeframes (December 1st to July 1st). April 15th is too late to protect the area, with the warmer and rainier winters & springs we have.

<b>Subject: Season of Use</b>	<b>Response #: SOU-1, Pryor Unit</b>
	ATV's do not belong in those areas until July.
288-8	The seasonal closures as proposed in alternative B are well selected. These would be a good addition to Alternative C on those routes that are open to motorized use. The resource protection value of these restrictions is high. The short two month closure (April 15 to June 15) is, however, insufficient to protect the resource. The seasonal closures should be from December 1 to July 1 as in the Forest's 2004 proposal.
307-23	Season of closure might best be addressed on a road-by-road basis. Different roads open up and dry out at different times of the spring. Likewise roads become snow covered and impassable at different times in the fall. All roads should be closed until they are snow free and dry to minimize the negative impacts of parallel roads and ruts in attempts to avoid snow banks and wet areas.
396-15	In most areas though, the length of the motorized season should remain as it currently is. The past several years of drought have made a April 1st opening of most trails to motorized use very reasonable. The Forest Service should exercise a flexible decision on motorized trail openings based on a year by year basis, depending on trail conditions. The end of the motorized season is currently dictated by the first significant snowfall which automatically eliminates motorcycles from the trails. In most cases, to close the motorized trails before the 1st winter storm provides for too short of a season. August, September, October, and part of November are usually excellent times for motorized use because the snow banks have receded and the summer weather patterns generally create relatively dry trail conditions. In most years, by the opening of rifle hunting season, it is either too cold or the snow levels have dropped far enough to almost eliminate motorcycle use on the trails anyway.
404-3	Something I have noticed in my three years going to the Pryors is how badly road 2308 is torn up between the Crooked Creek Road junction and the wild horse range boundary, especially between Big Ice Cave and the wild horse range boundary. From my observations, people get past the long-lasting snow banks and muddy conditions of the road by going around them. The road has thus become rough and wide. A seasonal closure may help alleviate this, but I am not so sure that it would keep everyone off the road unless there was thorough enforcement of the closures.
406-13	Last but not least, the seasonal closure in Alt. B is a move in the right direction and I applaud you for having the strength to do what is best for the resource. However, on the ground evidence shows a need to expand the closure southward 1/4 to 1/2 mile along the Stockman trail #2850 beyond the junction with #2492. Also, evidence points to the seasonal closure dates in the 2004 proposal of Dec 1 to July 1 as being more appropriate toward truly protecting the resources, especially in the Pryor Mountains. The District Ranger can close later or open earlier on a year by year basis.
412-6	The designated season of use in the Pryor Area of June 15 - April 15 is not well researched and ill founded. Since this season of use is meant to limit damage incurred on trails while they are muddy and soft this is the improper time span. And since the Pryor Mountain soil is generally only vulnerable to rutting when saturated with snow runoff and early spring rains, the season of use needs to reflect this time span more appropriately. The proper season of use should be May 1st thru March 1st.
419-2	As for seasonal closing I have found that the proposed plan of April 15th to June 15th closure of the many trails does not reflect the conditions that exist in the Pryors....I would recommend the trail closures run from the first of April until mid May with the dates being flexible as conditions change from year to year.
420-2	It is our understanding that snow melt data was gathered using Snotel sites in the Bighorn and Beartooth Mountains. As far as we know, there is no Snotel site in the Pryor Mountains and that information from other Snotel sites was used in the Pryor Mountains seasonal closure decision process. Average snow falls, ground snow levels, and spring melting patterns in the Pryors are very different than either the Big Horns or the Beartooths. Members of the TSATV are very familiar with the Pryor Mountains and when visitation is prudent and when it is not. Based on this experience, we recommend changing the April 15-June 15 seasonal closure period to April 1-May 20. This change would help both OHV and non-OHV users access to favorite areas after May 20th.
421-31	At this time the DEIS is proposing for winter closures to be from March through June 1st, this

**Chapter 5: Response to Comments**

<b>Subject:</b> Season of Use	<b>Response #:</b> SOU-1, Pryor Unit
	is based on the weather conditions in the Beartooth. The Beartooth has very different weather patterns than the Pryors do. ... A much more appropriate time frame would be April 1st through May 15th. ...Memorial Day Weekend all areas should be open for use.
421-32	In the Beartooth's there should be no seasonal closures because the road base is rock and it can handle the wet travel. Pickett Pen Road up to Iron Mountain should remain open. No seasonal closures because the road base is rock. Trail #'s 2092, 2093, 2144, 2091, 2088, 2095, 2850 and start of the Y of 2012, 2814 above the Y closed for seasonal uses. If there are other problems we should address by coming together and having a special order and the barricades to close until which time when it can be used. All other trails left open with no restrictions because the road base can handle all weather conditions for traveling. ...would like no seasonal restrictions on road 2140 Iron Mountain or Picket Pen.
425-16	<u>The seasonal closures</u> suggested in Alternative B are acceptable and these should be incorporated into Alternative C for those motorized routes, which are open in Alternative C.
427-2	Seasonal closures from April 15th to June 15th is not acceptable. Prefer that it be April 1 to May 20th only. This is used almost every year during Memorial Day.
431-2	I support seasonal closures April 1st to May 20th. Trail 2091 to 2095A I believe it should be open all year I enjoy going in different weather spring summer & winter. The same answer for 2088 trail.
438-5	Seasonal restrictions proposed under the preferred alternative are excessive for the Pryor Range. Information explaining what study/studies used for rationale and how they apply to the site-specific resource conditions in the Pryor's is not apparent. Internal reports and studies, including prior NEPA analysis that are relevant to the site-specific conditions in the area are important resource and should be identified.
438-7	Seasonal closure on this trail as well as others in the vicinity should be held to April 1st until May 20th.
445-4	Another important issue is seasonal closure. While some roads (probably not enough) are closed for seasonal use (or only open for some use) that is not part of alternative C. It must be included. Much of the damage to the fragile Pryors landscape is done in the spring months when the ground is wet and vulnerable to damage by most types of travel into effect? How are you going to enforce the rule?
467-10	We recommend that the higher elevation segments of major travelways of Miller Trail/Stockman Trail/Red Pryor Divide Road be used for motorized recreation only if it can be limited to dry road conditions.
489-3	If seasonal closures are required, then I would like to see the closure period to be from April 1 to May 20th, instead. The reason for this is that the data for the water and moisture for the area was taken from Snotel and data in areas that are much different than the Pryor areas due to lack of Snotel data in the Pryors exactly. Due to the more arid temperatures in this area, the road closures recommended in your alternative B are often not having a problem with any moisture and mud erosions.
490-3	If seasonal closures are required, then I would like to see the closure period to be from April 1 to May 20th, instead. The reason for this is that the data for the water and moisture for the area was taken from Snotel and data in areas that are much different than the Pryor areas due to lack of Snotel data in the Pryors exactly. Due to the more arid temperatures in this area, the road closures recommended in your alternative B are often not having a problem with any moisture and mud erosions.
510-1	The seasonal road closure in the Pryor Mtns would affect all of bear season... It would also affect access to pole permittees on Stevens Hill... Seasonal closures would limit access to 15 days... I disagree with any seasonal road closures.
<p><b>Summary of Comments:</b> Numerous comments expressed concern over the seasons of use (SOU) proposed in the DEIS, and specifically those proposed for the Pryor Mountain Unit. Some comments request a longer SOU, while other comments requested a shorter SOU. Some comments urged flexibility in implementing a SOU based on current year's climate; while some comments requested that all routes remain open all year or for consideration during bear hunting season. A number of comments questioned the data and rationale for establishing the SOU.</p>	
<p><b>Response:</b> The Season of Use proposed for the Pryor Mountain Unit was initially based on analysis of SNOTEL data from 15 sites. The dates suggested by this analysis were then adjusted based on landform aspect and consideration of timing with the spring bear hunting season. Under Alternatives B and B Modified, respectively, motorized use on</p>	

<b>Subject:</b> Season of Use	<b>Response #:</b> SOU-1, Pryor Unit
designated routes during spring bear hunting season in the Pryor Mountains could occur on 62 out of 122 miles (51%) and 66 out of 124 miles (53%). Under Alternative C, motorized use on designated routes during spring bear hunting season in the Pryor Mountains could occur on 59 out of 78 miles (76%). Motorized use on designated routes during spring bear hunting season in the Pryor Mountains could occur on all designated routes under Alternative A and No Action. A detailed description of this analysis can be found in Appendix F.	

<b>Subject:</b> Season of Use	<b>Response #:</b> SOU-2, Picket Pin
<b>Letter-Comment #:</b> 421-32	In the Beartooth’s there should be no seasonal closures because the road base is rock and it can handle the wet travel. Pickett Pen Road up to Iron Mountain should remain open. No seasonal closures because the road base is rock. Trail #'s 2092, 2093, 2144, 2091, 2088, 2095, 2850 and start of the Y of 2012, 2814 above the Y closed for seasonal uses. If there are other problems we should address by coming together and having a special order and the barricades to close until which time when it can be used. All other trails left open with no restrictions because the road base can handle all weather conditions for traveling. ...would like no seasonal restrictions on road 2140 Iron Mountain or Picket Pen.
<b>Response:</b> After further review and in consultation with the Gallatin National Forest, Route #2140 Picket Pin Road on the Custer National Forest will have a yearlong season of use designated for motorized use in the preferred Alternative B Modified in the FEIS.	

<b>Subject:</b> Season of Use	<b>Response #:</b> SOU-3, Red Lodge Creek
<b>Letter-Comment #:</b> 161-6	Red Lodge Creek Road #2141; The route should be closed to vehicles, except over the snow vehicles, from 12/1 to 6/1, because of potential damage to the road surface and potential conflicts with X-Country Skiing and snowmobile use.
<b>Response:</b> Route #2141 season of use for minimizing impacts during spring thaw is addressed in Alternatives B, and B Modified. Portions of the route remain open for private land ingress and egress, and would also be designated for public motorized use.	

<b>Subject:</b> Season of Use	<b>Response #:</b> SOU-4, Campgrounds
<b>Letter-Comment #:</b> 67-2	A season of use designation of May 15 to September 30 would be placed on all roads within the ten currently gated developed campgrounds.” Why so early? September 30 is too early to close grounds.
<b>Response:</b> September 30 accommodates seasonal closing of campground infrastructure including water, garbage, latrine, and concessionaire services. It also helps reduce vandalism.	

## SOILS

<b>Subject:</b> Soils	<b>Response #:</b> S-1, Soil Crusts
<b>Letter-Comment #:</b> 41-3	The fact that you do not even mention cryptogamic or crytobiotic soil under your soil section leaves questions for the reader about the thoroughness of this DEIS. Crytogamic soils are very important for reducing soil erosion in dry environments of the west and they are present in the Pryor's. The plan needs to address the destruction and monitoring of cryptogamic soils as many USFS areas in the southwest already do.
129-27	We saw no mention of crytobiotic soils in the Forest’s analysis. What does the Forest inventory The Pryors Coalition show of such soils in the Pryors and the potential of Travel Plan alternatives to impact them?
205-1	If the USFS chooses plan B, I believe that the biological soils crusts in the Pryors will be irreparably damaged. The damage will increase the level of erosion and soil stability, will decrease the ability for seedling germination, and will decrease or halt plant growth.
205-4	I believe that no matter what we do as a community to protect the Pryor's, many people will take it upon themselves to drive wherever they wish. So, if we make it harder for them to access the area, it will make it that much harder for them to damage the biological soil crusts.
418-2	Cryptogamic soils should be considered.
425-10	More seriously, there is no mention of discussion of the issue of crytobiotic soils in the soils

**Chapter 5: Response to Comments**

<b>Subject: Soils</b>		<b>Response #: S-1, Soil Crusts</b>
		section of the DEIS. Is this due to a lack of knowledge of these problem soils or a decision to not include them to avoid a discussion of the impacts of such soil problems.
461-74		The DEIS provided a good list of the Erosion Risk Ratings for the Land Type Associations across the planning area. Table 3-28 titled, "Route Miles by Erosion Hazard Rating by Alternative" lists the erosion ranking for each alternative. The table did not differentiate between trails and roads, or provide a listing of the different trail classes and road maintenance levels. This information is necessary to adequately analyze the effects of the different alternatives. Finally, in order to adequately analyze soil impacts among the alternatives, the DEIS needs to identify cryptobiotic soils in the planning area and detail how these fragile soils will be protected.
<b>Summary of Comments:</b> What is the impact of travel management on soil crusts?		
<p><b>Response:</b> Information on soil crusts distribution and extent in the area is generally lacking. There are no references to soil crusts in the Carbon Count Soil Survey for the Pryor Mountains area. The NRCS Soils State Office in Bozeman was contacted and at this time they have no knowledge of any studies that may have taken place in Montana and Wyoming on the distribution and extent of soil crusts and/or cryptobiotic soil crusts in the project area (Personal Communication Jane Karinen, NRCS State Office Bozeman, MT).</p> <p>Soil crusts most likely do not occur on roads and trails due to existing conditions. Off-road travel by motor vehicle is currently prohibited except for dispersed camping within 300 feet of the road. The majority of dispersed camp sites are currently used and have some level of disturbance. These sites are most likely not located in the dryer open areas in the area but are more generally found in areas with higher vegetative cover and some shade. Off-trail travel (i.e. "bushwacking") by stock and foot travel could have a negative impact on soil crusts where they exist.</p> <p>Soil crusts probably do exist in the project area though the extent and distribution are not well known. There will be impacts to soil crusts mainly due to off-trail travel by stock and foot travel. Impacts to soil crusts from motor vehicle traffic should be minimal.</p>		

<b>Subject: Soils</b>		<b>Response #: S-2, Erosion Hazard Rating</b>
<b>Letter-Comment #:</b> 40-1		We still believe, however, that the preferred alternative should be modified to include further reductions in motorized routes, particularly routes in areas with high hazard (erosive) soils. The DEIS states that Alternative B would include 15.9 miles of public motor vehicle use and 49.3 miles of OHV use on high hazard rating soils. Alternative C, however, includes no such routes on high hazard soils. We believe additional reductions in motor vehicle and OHV route designations for high hazard soils should be included in the preferred alternative. At the very least improved rationale for having motor vehicle routes and OHV routes on high hazard soils with Alternative B should be proved that justifies designating motorized routes on high hazard soils.
461-38		In order to meet NEPA requirements for an adequate range of alternatives, one alternative needs to be developed that avoids and protects these soil types, in addition to mitigating the effects to soils with medium erosion risk ratings using proven mitigation techniques.
<p><b>Response:</b> Erosion hazard ratings are based on multiple factors. Basically, erosion hazard for roads and trails is the hazard or risk of soil loss from unsurfaced roads/trails. These ratings do not mean that management should not occur on soils with a specific rating but rather what types of mitigation and management may be needed to minimize the impact. For example, roads and trails with a high erosion hazard may require more frequent maintenance and higher cost erosion control methods. These ratings were determined by categorizing a whole map unit by the most restrictive rating in that map unit. If some map units had soils that had ratings completely different from each other (i.e. one had a high erosion hazard rating and one had a low erosion hazard rating) the map unit was given the rating that was considered most restrictive. In most cases, many of the landtype and soil units will actually have different ratings for the individual soils but since these components are not mapped separately the effect can not be disaggregated and displayed. Again, this is a rating based on the most restrictive hazard and it is the potential of the map unit, not necessarily the actual site that contains the routes.</p> <p>It would not be feasible to have an alternative that completely eliminates all roads and trails from landscapes with a high erosion hazard rating as it would be impossible to provide the necessary access for recreation, administration, and protection of the District.</p>		

<b>Subject:</b> Soils	<b>Response #: S-2, Erosion Hazard Rating</b>
Please see soils specialist report and FEIS Chapter 3, Soils section for additional discussion on soil erosion hazard ratings.	

<b>Subject:</b> Soils	<b>Response #: S-3, Episodic Events</b>
<b>Letter-Comment #:</b> 66-19	A sense of magnitude must be used when making decisions about road closures based on indicators such as sediment production. For example, a route should not be closed because it is estimated to produce 10 cubic yards less sediment. The sediment yield must be compared to naturally occurring conditions which includes fires. The recent fire in the Custer National Forest discharged thousands of cubic yards of sediment to the area streams which is more than all of the motorized routes in the project area for the next 100 years.
<b>Response:</b> NEPA requires a comparison of action alternatives to the no action alternative, not to episodic events.	

<b>Subject:</b> Soils	<b>Response #: S-4, Route #2492 (Bear Canyon)</b>
<b>Letter-Comment #:</b> 68-26	The roads up from Bear Canyon may have to be closed in the future because of erosion. My recommendation is to close these roads now to wheeled vehicles. These two roads would make excellent horse trails.
441-2	Bear Canyon Road #2492 should be converted to non-motorized use because it is located in a sensitive riparian area at high risk for irreparable damage from motorized use.
<b>Response:</b> Road 2492 is on a ridgeline, and road #24921 is in the riparian area. Both roads are proposed in the FEIS Alternative B Modified to not be designated for motorized use.	

<b>Subject:</b> Soils	<b>Response #: S-5, Productive Land Base</b>
<b>Letter-Comment #:</b> 461-36	Of particular concern is the preferred alternative's designation of non-system routes to motorized trails open to all motor vehicles. In order to meet NEPA's requirement to take a hard look at potential impacts, a site specific analysis for how each of these additions will impact the planning unit soil productivity is necessary. In order to adequately comment on all non-system additions, they should be illustrated on a map with the soil types and erosion rankings.
<b>Response:</b> The planning unit for this analysis is the Beartooth District. If non-system roads and trails are added to the system those roads and trails will be considered removed from the productive land base. If non-system roads and trails are not designated for motorize vehicle use, those roads and trails will be restricted to non-motorized use and could eventually return to productive capability. Depending on if restoration opportunities are completed, the time frame for return to productive capability will be quicker than without restoration activities. Each alternative displays the amount of non-system roads that were analyzed for designation for motor vehicle use. Information on soils, soil maps, and other information used in the analysis is located in the project file.	

<b>Subject:</b> Soils	<b>Response #: S-6, Separate Beartooth and Pryors</b>
<b>Letter-Comment #:</b> 124-19	These data should be split out and presented on two separate tables, one for the Pryors and one for the Beartooth unit.
<b>Response:</b> Data needs and their analysis are different for each resource area. Where splitting the data between the two units made sense for the analysis the resource specialist conducted the analysis separately. For the FEIS the soils analysis was evaluated separately for the Beartooths and Pryors. See Soils Specialist Report and FEIS Chapter 3 Soils Section.	

<b>Subject:</b> Soils	<b>Response #: S-7, Options Available</b>
<b>Letter-Comment #:</b> 425-9	It is incumbent that the Forest Service provide information to the public as to how you intend to curb or end use of roads located on high erodability soils-authorized or unauthorized-if your monitoring and evaluation determines any physical, biological or environmental adverse effects.
<b>Response:</b> There are many options available to the deciding official on how to address specific resource concerns, such as season of use, temporary emergency closures, or addition of drainage structures. The exact option to be used should be dependent on the specific resource concern.	
The 2005 Travel Management Rule sets the stage for modifying motorized travel designations annually by requiring	

**Chapter 5: Response to Comments**

<b>Subject:</b> Soils	<b>Response #: S-7, Options Available</b>
that new maps be printed every year that reflect any route changes identified since the last printing. There is no plan to revisit travel management planning on a District-wide scale again; rather annual adjustments would be made based on identification of adverse resource impacts.	

**VEGETATION**

<b>Subject:</b> Vegetation	<b>Response #: V-1, Stock</b>
<b>Letter-Comment #:</b> 95-2	I would like to further your restrictions to include all of the Beartooth Wilderness off limits to all horses and stock use. .... Water channels have formed in these horse ruts and further exasperate the problem thus degrading the trail and contaminating our streams with unnatural sediment loads during times of snow melt and surface run-off. ... It is well documented that stock animals area the number one importer of the noxious weed seeds. ... back country camping sites that have had horse/stock use have been 'girdled' and killed by repeatedly tying the animals to them, and the off setting riparian areas are riddled with deep hoof impressions and manure.
<b>Response:</b> Recreational stock may transport weed seed by carrying the seed in the hair, hooves, or digestive tract. They may also increase seed germination by reducing vegetation competition in areas of excessive grazing, girdling, and by ground disturbance in areas of excessive trailing. Weed seeds are also transported by wind and water, and wildfire provides seedbed conditions that enhance germination, establishment, and spread. The largest occurrence of the weed inventory on the Beartooth District occurs along major motorized transportation routes, trailheads, and in wildfire areas. Because many natural processes and motorized/non-motorized agents can continue to transport weeds and seed seeds, removing just recreational stock will not totally eliminate the spread of weeds. Weed management needs an optimal balance of use restriction, public education, implementation of best management practices, and effective treatment measures. The current Weed Seed Free Forage Order prohibits the possession or storage of hay, grain, straw, cubes, pelletized feed, or mulch that is not certified as being noxious weed free or noxious weed seed free by an authorized State Department of Agriculture official or designated county official; each individual bale or container must be tagged or marked as weed free and reference the written certification.	

<b>Subject:</b> Vegetation	<b>Response #: V-2, Route #2088 (Shriver Peak)</b>
<b>Letter-Comment #:</b> 386-17	Shriver Pk. Road (#2088) is a user-created extension into sensitive terrain that creates too much impact by motor vehicles. This entire road needs to be closed to motor vehicles to protect all resources.
<b>Response:</b> Impacts to vegetation settings are analyzed in FEIS Vegetation and Weeds section. A 2.2 mile portion of the route would not be designated for public motorized use in Alternative B Modified to reduce the potential for impacts to cultural resources. In addition, the route would have a season of use on it to reduce impacts to the route and adjacent resources during the spring snow break-up period.	

<b>Subject:</b> Vegetation	<b>Response #: V-3, Irreversible/Irretrievable</b>
<b>Letter-Comment #:</b> 163-2	How can designation of a road system/adjacent 300ft area be considered retrievable and reversible? Even if the funding were available, the political reality of attempting to close roads makes it, for all practical purposes, irreversible and irretrievable. Effects created by the road such as damage to cultural sites, spread of noxious weeds and erosion cannot be rolled back to the original condition by closing a mistakenly open road 10 years from now.
<b>Response:</b> The proposed actions have been evaluated for irreversible and irretrievable commitments of resources consistent with NEPA requirements and the definition of those terms in a NEPA context. Based on this, no irreversible commitments of renewable resources were identified. Roads and trails designated for public motorized use are considered irretrievable commitments as long as they remain designated routes.	

<b>Subject:</b> Vegetation	<b>Response #: V-4, Long Term Productivity</b>
<b>Letter-Comment #:</b> 136-6	Chapter 3, on page 3-4, heading 3.1.6, says that "Selection of any of the alternatives considered in this analysis is not expected to affect the long term productivity of the various resources within or adjacent to the project area." I do not believe that evidence presented in the DEIS supports that conclusion. One of the "resources" that I believe deserves close attention is the

<b>Subject:</b> Vegetation	<b>Response #: V-4, Long Term Productivity</b>
	tremendous diversity of plants and plant community types that is present in the Pryors.
136-7	Most of the evidence presented in the DEIS indicates clearly that the Alternative C is the better alternative for insuring the protection of what is really unique plant diversity in the study area and indeed in Montana. The concerns I am raising here are not often addressed or not adequately addressed by the treatment given in the DEIS. I do not find that the assertion that all of the alternatives offered in the DEIS can be expected to be neutral with respect to the "long term productivity of the various resources within or adjacent to the project area" is supported by a qualified scientist, by references to scientific works and models on this topic, or even by the facts presented in the DEIS.
<b>Response:</b> The FEIS will reflect the following clarification. In general, designation of routes would not affect the ability of the land to produce continuous supplies of Forest resources. However, selection of any of the action alternatives considered in this analysis could affect the long term productivity in a small area of the Beartooth District, as outlined in Chapter 3 of the EIS relative to soil, vegetation, water, fish, and wildlife. Designation of routes would take a relatively small area out of production for the sake of human use and enjoyment of public lands.	

<b>Subject:</b> Vegetation	<b>Response #: V-5, Weeds</b>
<b>Letter-Comment #:</b> 40-23	We encourage limiting motorized uses to designated roads and trails to reduce threat of weed spread, and limitations on motorized use in roadless areas, which are often reservoirs of native plants. The need to avoid the spread of weeds, provide further support for the selection of Alternative C.
68-5	The problem of proliferating weeds is reason enough to close more roads than the Forest Service has proposed closing in Alternative B...Slowing the introduction of weeds is an underlying reason to close those roads recommended for closure by the Pryors Coalition.
124-20	Under Alternative B 11,000 acres are shown as highly susceptible, whereas only 2,200 acres are highly susceptible under Alternative C. In view of the almost irreversible nature of noxious weed infestation, and projected increased use of the area, this alone should be reason enough to select Alternative C as the preferred Alternative.
266-2	To preserve this unique ecosystem the number of roads must be limited and motorized off-road use curtailed. Roads provide avenues for noxious weed infestations and soil erosion.
274-4	Alternative B is also insufficient for minimizing the spread of invasive species, reducing landscape fragmentation, and providing secure wildlife habitat.
416-4	All other issues aside the imminent threat of noxious weeds should be sufficient to convince CNF to designate only a very minimum number of motorized routes in the Pryors. Perhaps both Alternative C and the Pryors Coalition proposal have too many roads. In fact CNF should be taking emergency steps to stop motorized traffic on many routes in the Pryors BEFORE the new Travel Plan takes effect.
425-13	In your analysis in the Vegetation section apparently, five times as many acres in Alternative B are susceptible to noxious weed infestation than in Alternative C. This will require more funding and staff time for weed monitoring and treatment. If the needed weed control staff and funding are not available then it is probable that noxious weeds will infest significant areas of the Pryors.
487-2	Reducing the number of roads where motorized vehicles are allowed to travel will help concentrate weed infestation to more manageable locations.
505-3	In this consideration of closing or maintaining roads, why not incorporate the Forest Service's knowledge of weeds - the destructive nature, the difficulty of controlling, the relationship of roads to the spread of weeds? Surely the Forest Service is aware of the increasing expense of controlling the now present weeds in the Pryors.
<b>Summary of Comments:</b> Concern about the spread of noxious weeds.	
<b>Response:</b> Research has shown that motorized vehicles tend to have a greater capacity for spreading weeds than non-motorized travel. There should be reduced risk of impacts to ecosystems under Alternatives B, B Modified, and C and increased impacts under Alternative A. In comparison to the No Action Alternative, Alternative A increases motorized routes by 19%, Alternatives B and B Modified decreases motorized routes by 9% and 7%, respectively, and Alternative C decreases motorized routes by 31%.	
Weeds will continue to be spread as a result of motorized and non-motorized resource management, recreational use,	

**Chapter 5: Response to Comments**

<b>Subject:</b> Vegetation	<b>Response #:</b> V-5, Weeds
<p>other human activities, wildlife, and natural processes. To reduce the effects of weed spread, the Forest Service will monitor routes for early detection of new weed patches and treat patches when they are still small. Weed treatments are more successful and less costly when the infestations are limited in size. The impacts of weed management were analyzed in the 2006 Custer National Forest Weed Management EIS and were incorporated into this analysis by reference.</p>	

<b>Subject:</b> Vegetation	<b>Response #:</b> V-6, Research Natural Areas
<b>Letter-Comment #:</b> 307-13	<p>The Forest Service is to be commended for closing Road 2009 to motorized vehicles. It currently allows motorized access to Trail #9. ATVs have not stopped at the end of the road, but have continued on up Trail #9, causing considerable damage to the trail. It is imperative that OHVs are not allowed to reach Line Creek Plateau. This is a fragile alpine area with a Research Natural Area designation and should be protected from vehicle damage.</p>
<p><b>Response:</b> Motorized vehicle use is prohibited in Line Creek Plateau Resource Natural Areas per the 2000 EA and Decision Order.</p>	

<b>Subject:</b> Vegetation	<b>Response #:</b> V-7, Sensitive Plants (Shoshonea)
<b>Letter-Comment #:</b> 136-3	<p>My concern is that the DEIS makes shoshonea sound like it grows like commercial wheat: we have 155 acres covered by this plant that is rated G2/G3 and S1! This is a plant with exceptionally specific habitat requirements. It grows in a few small patches that are widely dispersed. Disruption to even one of these little patches is going to reduce the amount of shoshonea known to exist on the entire planet by a significant amount.</p>
<p><b>Response:</b> All Forest Service sensitive plant species are categorized as having various aspects of rarity. There was no intent to diminish the importance of conserving these unique colonies and habitats. The project file for the sensitive plant analysis provides numerous background information which is not displayed at length in the DEIS, but was utilized as part of the overall analysis. You are correct that <i>Shoshonea pulvinata</i> is a narrow endemic with a global distribution limited to 12 occurrences associated with the Bighorn Basin area. Eight occurrences are located in Wyoming, in the eastern Absaroka Mountains and the Owl Creek Mountains; three of these occurrences are found on the Shoshone National Forest. Four occurrences are located in the Beartooth and Pryor mountains in south-central Montana. Occurrences are composed of mats that are comprised of hundreds or even thousands of individual plants. The total number of plants is estimated to be 210,000 in Wyoming and 12,000 in Montana. The Shoshonea colony on the Custer NF occurring in Big Pryor Mountain is on steep terrain and at least 1/2 mile away from any proposed designated motorized route. The Burnt Timber Road # 2849 bisects one population in the Lost Water Canyon colony but off-route motorized travel is typically restricted by steep terrain. The remaining Lost Water Canyon populations are greater than 300 feet away from motorized routes.</p>	

<b>Subject:</b> Vegetation	<b>Response #:</b> V-8, Season of Use (Jove's Ravine)
<b>Letter-Comment #:</b> 68-9	<p>My concern is that prior to the melting of the Jove's Ravine snowdrift people try to circumvent the drift by driving off road to the south. As they do so, they not only tear up the road embankment but also drive over <i>R. jovis</i> plants, which are still on the Forest Service's list of sensitive plants. Closing the 2308 until 25 May each year will eliminate this circumvention.</p>
<p><b>Response:</b> Many respondents requested Memorial Day weekend be the beginning of the season of use for this and many other areas, rather than June 16. Further analysis of climate data, including snow-free periods and historic temperatures, was conducted. Alternative B Modified season of use in the FEIS responds to not only the new climate information, but also accommodates a Memorial Day weekend opening. Jove's buttercup, a Forest Service sensitive plant species, tends to grow in areas where snowbanks are receding in certain habitats, including areas along road 2308. Alternatives B and C season of use on road 2308 (includes the vicinity of Jove's Ravine) is from 6/15 to 4/15 and lessens vulnerability to impacts from drifts being circumvented by vehicles. Alternative B Modified season of use on road 2308 is 5/22 - 4/15 continues to lessen the vulnerability to impacts to Jove's Buttercup versus the yearlong season of use as analyzed in Alternative A and the No Action Alternative.</p>	

<b>Subject:</b> Vegetation		<b>Response #:</b> V-9, Sensitive Plants (Pryor Mountains)
<b>Letter-Comment #:</b> 192-1	This concentration of rare vegetation types, in combination with documented occurrences of rare plant species such as <i>Lesquerella lescii</i> (Pryor Mountain bladderpod) and <i>Shoshonea pulvinata</i> (shoshonea), highlight the significant biological diversity value of the Pryor Mountains.	
<b>Response:</b> You are correct that the Pryor Mountains are considered a botanical hotspot with high biological diversity value. All Forest Service sensitive plant species are categorized as having various aspects of rarity. There was no intent to diminish the importance of conserving these unique colonies and habitats. The project file for the sensitive plant analysis provides numerous background information which is not displayed at length in the DEIS, but was utilized as part of the overall analysis.		

<b>Subject:</b> Vegetation		<b>Response #:</b> V-10, Sensitive Plants (Beartooth and Pryor)
<b>Letter-Comment #:</b> 461-65	The DEIS concludes that, “[i]mplementation of any alternative would not be anticipated to move any sensitive plant species within the project area toward federal listing.” (DEIS p. 3-145). Unfortunately, the analysis only looked at the overall district and did not examine the Beartooth and Pryors Units separately. Since the Absoraka-Beartooth Wilderness constitutes such a large portion of the planning area, grouping the whole district together skews the analysis results. Even though the conclusion stated in the DEIS may remain the same, it is still necessary to evaluate the district by discrete units in order to properly determine cumulative effects and locate opportunities to minimize impacts as is required under the E.O.	
<b>Response:</b> The FEIS addresses both the Pryor and Beartooth Units of the Beartooth District relative to the sensitive plant analysis.		

<b>Subject:</b> Vegetation		<b>Response #:</b> V-11, Sensitive Plants (Goldenweed)
<b>Letter-Comment #:</b> 467-11	Beartooth Large-Flowered Goldenweed (S1S2, G4G5T2T3, USFS Sensitive) grows in Big Pryor North in the vicinity of Forest Service Road 2500. The travel plan should call for monitoring damage to the plant and immediate remedial steps to be taken to protect it.	
<b>Response:</b> The Travel Plan will call for compliance monitoring which will help assess whether or not issues with sensitive plant populations, including Beartooth Goldenweed, will need further attention. Special orders or changes to the Motorized Vehicle Use Map are steps that can be taken if travel compliance issues threaten viability of population.		

<b>Subject:</b> Vegetation		<b>Response #:</b> V-12, Sensitive Plants – Botanical Hot Spot
<b>Letter-Comment #:</b> 493-1	Sensitive plant species and vegetation concerns were substantially ignored. The Pryor's are a botanical outstanding interest with diverse plants reflecting low and higher elevations. These sensitive plants are threatened by OHMV's, with no fewer than 35 sensitive species in the area.	
<b>Response:</b> Sensitive plant species were analyzed in DEIS Vegetation - Sensitive Plants section. You are correct that the Pryor Mountains are known as a botanical hotspot. The Pryor Mountain's outstanding botanical features and interest will be added to the description of the affected environment in the FEIS - Vegetation section.		

<b>Subject:</b> Vegetation		<b>Response #:</b> V-13, Sensitive Plants - Correction
<b>Letter-Comment #:</b> 385-3	The DEIS gives the habitat of <i>Potentilla plattensis</i> as sagebrush steppe. It actually occurs in moist to wet alkaline meadows within the sagebrush ecosystem. Common associated species include Baltic rush and shrubby cinquefoil.	
<b>Response:</b> This clarification is noted in the FEIS Vegetation - Sensitive Plants section.		

**Chapter 5: Response to Comments**

<b>Subject:</b> Vegetation		<b>Response #: V-14, Preferred Alternative</b>
<b>Letter-Comment #:</b> 226-3	Choosing the management plan that best protects these unique assets is the only responsible action. Without serious regulation and effective administration of the regulations the long term viability of this ecosystem will be degraded and losses will and have occurred. We do not believe that the CNF present preferred alternative (Alternative B) adequately protects the plant and wildlife habitats of the Pryor Mountains. We believe that Alternative C with the modifications suggested by the Pryors Coalition will best protect the fragile ecosystem of the Pryor Mountains.	
<b>Response:</b> There should be reduced risk of impacts to ecosystems under Alternatives B, B Modified, and C and increased impacts under Alternative A. In comparison to the No Action Alternative, Alternative A increases motorized routes by 19%, Alternatives B and B Modified decreases motorized routes by 9% and 7%, respectively, and Alternative C decreases motorized routes by 31%.		

<b>Subject:</b> Vegetation		<b>Response #: V-15, Subalpine Meadows</b>
<b>Letter-Comment #:</b> 254-2	In creating a travel plan for this unique wilderness I urge you to adopt Alternative C. This is not to prevent people from enjoying the Pryor Mountains, but to reduce our impact on the wildlife and their habitat. The sub-alpine meadows are especially sensitive to off-road use and as roads become wet and muddy, they are widened by people going off-road in order to pass.	
<b>Response:</b> Potential high elevation impacts are disclosed in the FEIS Vegetation section. The Season of Use limitations outlined in Alternatives B, B Modified, and C will also limit people going off-road in order to pass during spring thaw in the higher elevations which is when the majority of road widening tends to occur.		

<b>Subject:</b> Vegetation		<b>Response #: V-16, Dispersed Vehicle Camping</b>
<b>Letter-Comment #:</b> 68-44	If the 600-foot swath was actually used, that use would be detrimental to vegetation. I do not know of places where there are campsites on both sides of the road.	
<b>Response:</b> Terrain features (i.e., steeper slopes), areas exposed to harsh elements (i.e. wind-blown ridges, alpine/subalpine areas), and other elements reduce the probability that the entire 600 foot swath would have impacts from dispersed vehicle camping.		

<b>Subject:</b> Vegetation		<b>Response #: V-17, Vegetation - Issues</b>
<b>Letter-Comment #:</b> 136-1	I am concerned that the DEIS contains so little analysis of the impact on native plants of increased exposure to motorized recreation. I do not believe that the DEIS has given adequate attention to the subject.	
136-8	In addition to the general neglect of issues related to vegetation, I am concerned that some of the information presented in the DEIS might be misleading.	
<b>Response:</b> The DEIS focused on areas where issues were raised relative to riparian (DEIS - Water Quality section) and alpine/subalpine zones where impact recovery can be difficult and long term. There was no intent to diminish the potential for impacts to the vast diversity of native vegetation found within the Project Area. A broader section regarding impacts to native vegetation will be included into the FEIS, including information that you and others provided in your responses.		

<b>Subject:</b> Vegetation		<b>Response #: V-18, Vegetation below 8000'</b>
<b>Letter-Comment #:</b> 461-59	The DEIS introduction states that “Most interest heard from public comment pertains to the alpine and subalpine systems that are difficult to recover.” (DEIS p. 3-122). Even though “most interest” in public comments focuses on these areas, this does not mean impacts to vegetation at lower elevations should be excluded from analysis. The DEIS needs to analyze motorized route designations by unit, elevation and cover type. As the DEIS states, “Many of the high elevation motorized routes occur through areas of open grass and forbs on gentle to moderate terrain,” (DEIS p. 3-122). These areas are susceptible to illegal off-route use and the DEIS must evaluate the potential impacts in these areas from illegal use.	
461-60	An adequate analysis would look at each of these characteristics for each planning unit. Instead, the analysis lumped together all miles and acres over 8,000 ft and then claimed that “all alternatives pose minor potential impacts to subalpine / alpine landscape area (less than 3%	

<b>Subject:</b> Vegetation		<b>Response #:</b> V-18, Vegetation below 8000'
	of total),” (DEIS p. 3-123). The decision not to include acres below 8,000 ft is arbitrary and capricious, and in violation of NEPA. Furthermore, the only analysis by alternative is found in Table 3-47. This does not constitute adequate NEPA analysis.	
461-61	The DEIS's unsubstantiated conclusion on cumulative impacts is that “Implementation of any of the alternatives considered in this EIS would not be expected to contribute to significant cumulative effects associated with native vegetation.” (DEIS p. 3-124). This claim is arbitrary and capricious, and in violation of the disclosure and analysis requirements of NEPA.	
<b>Response:</b> Impacts to vegetation below 8,000 feet are incorporated into the FEIS. NEPA analysis typically assumes that there will be compliance with laws, regulations, and policy. Attempting to identify the location and extent of unauthorized off-route use is outside the scope of this analysis.		

<b>Subject:</b> Vegetation		<b>Response #:</b> V-19, Weeds, Level of Risk
<b>Letter-Comment #:</b>	In discussing the analysis methodology, the DEIS explains, “Overlaying weed inventories and designated public motorized routes, with this susceptibility assessment can further identify areas that are potentially at risk from invasion.” (DEIS p. 3-129). Unfortunately, designated routes do not include identified non-system routes. The decision to exclude identified non-system routes from the weed susceptibility assessment was arbitrary and capricious, and is in violation of NEPA. Therefore, all conclusions based on the Level of Risk determinations should be re-evaluated.	
461-62		
<b>Response:</b> The analysis is based on the design of each Alternative which includes variations in which some non-system routes become system routes. For those alternatives which describe changing non-system to system routes, the DEIS / FEIS did complete the analysis for those particular routes. Non-system routes not designated for public use may remain on the landscape until such time that they re-vegetate naturally or are physically decommissioned. From a cumulative effects standpoint, there is potential for weed spread along these routes, just as there is potential for weed spread in some areas that are not disturbed, or areas that could be disturbed by other elements such as wildfire.		

<b>Subject:</b> Vegetation		<b>Response #:</b> V-20, Weeds (Motorized/Non-motorized)
<b>Letter-Comment #:</b>	Given the very serious threat of noxious weeds, and the fact that five times as many acres are highly susceptible within the motorized road corridors in Alternative B than in Alternative C, we simply can see no basis for the following sentence which appears, without justification, in the middle of the analysis. <i>Based on these observations, there is insufficient data to draw a definite conclusion that any alternative would have a significant difference on the spread of noxious weeds based only on the type of use allowed under that alternative. (DEIS page 3-135)</i>	
129-28		
<b>Response:</b> This paragraph will be revised in the FEIS to clarify the intended concept. Research has shown that motorized vehicles tend to have a greater association for spreading weeds than non-motorized vehicles (Tyser and Worley, 1992). The current weed inventory for the Custer National Forest shows this same correlation; more weeds are present along motorized routes than along non-motorized routes. However, except for the Londale and Lane research, there is no data that shows different types of motorized vehicles spread weeds at different rates. For example, ATVs are not proven to spread more weeds than snowmobiles, or pick-up trucks. Consequently, all forms of motorized vehicles were lumped together in the risk analysis. The route was considered to be at a higher risk to weed invasion if it was used by motorized vehicle than if it was used by non-motorized vehicle.		

<b>Subject:</b> Vegetation		<b>Response #:</b> V-21, Clarification
<b>Letter-Comment #:</b>	The DEIS states, “[t]he amount of use is of much greater significance in determining the risk of spreading or introducing noxious weeds than the type of use,” (p. 3-134), but does not cite any studies for this conclusion. The DEIS further states, “No data on the amount of use on various roads and trails has been collected. Neither is there any known data concerning the correlation between the type of recreation use and the spread of weeds.” (DEIS 3-134). This statement seems to contradict previous conclusions that “Motorized vehicles and equipment contribute the most to introduction and spread of noxious weeds because of vehicle mobility and size, and/or distance of travel within a given time,” (DEIS p. 3-127). Finally, the DEIS concludes, “there is insufficient data to draw a definite conclusion that any alternative would have a significant difference on the spread of noxious weeds based only on the type of use allowed	
461-64		

**Chapter 5: Response to Comments**

<b>Subject: Vegetation</b>		<b>Response #: V-21, Clarification</b>
	under that alternative.” (DEIS p. 3-135). This is arbitrary and capricious, and in violation of NEPA. The deficiencies stated above clearly demonstrate that the Custer NF did not take a hard look at weed susceptibility in the Pryors Unit, and the DEIS made contradictory statements in order to arrive at its conclusion.	
<p><b>Response:</b> This paragraph will be revised in the FEIS to clarify the intended concept. The word "motorized" should have been in front of "use" when addressing "amount of use" and "type of use". The statements, “No data on the amount of use on various roads and trails has been collected. Neither is there any known data concerning the correlation between the type of recreation use and the spread of weeds”, will also be removed for clarification. The intended information was stated further in the same paragraph. Research has shown that motorized vehicles tend to have a greater association for spreading weeds than non-motorized vehicles. The current weed inventory for the Custer National Forest also shows this same correlation; more weeds are present along motorized routes than along non-motorized routes. However, except for the Londale and Lane research, there is no data that shows different types of motorized vehicles spread weeds at different rates. For example, ATVs are not proven to spread more weeds than snowmobiles, or pick-up trucks. Consequently, all forms of motorized vehicles were grouped together in the risk analysis. The route was considered to be at a higher risk to weed invasion if it was used by motorized vehicle than if it was used by non-motorized vehicle.</p>		

<b>Subject: Vegetation</b>		<b>Response #: V-22, Table Clarification</b>
<b>Letter-Comment #:</b> 461-63	Just as in the vegetation recovery section, the DEIS analysis arbitrarily lumped together the entire planning area for weed susceptibility by cover type, (Table 3-52, DEIS p. 133), even though Table 3-51 contains this information for the Beartooth Unit separately. Nowhere does the DEIS list the same information for the Pryors Unit. Even more, Table 3-53 lists the acres of current weed infestation by alternative only. This approach does not adequately analyze weed susceptibility in the Pryors Unit.	
<p><b>Response:</b> DEIS Table 3-51 contains information for the Beartooth District, which includes both the Beartooth and Pryor Units. DEIS Table 3-53 also contains information for the Beartooth District, which includes both the Beartooth and Pryor Units. In response to public comments, the FEIS displays of information by the Beartooth Unit, the Pryor Unit, and the Beartooth District as a whole.</p>		

<b>Subject: Vegetation</b>		<b>Response #: V-23, Literature Citations</b>
<b>Letter-Comment #:</b> 411-54	The weed study is flawed. The CNF is using a study from Australia. This study says that the majority of weed seeds are spread by 4-wheel drive off road vehicles vs. 2-wheel vehicles. This is the closest study that CNF can find to support a preconceived agenda to restrict OHV's. While ignoring a study from Shelley and Petroff from Montana State University. That states wind, and wildlife are the major spreaders of weed seeds in the forest. Their no study's linking OHV use as a major spreader of weed seeds. The CNF has failed to contact local state and county weed board officials for information concerning control of weeds and the spread of weed seeds. Not doing this shows the CNF is not interested in working with agency's that are more experienced with these matters than the CNF. The CNF should work with these agency's to come up with a accurate weed plan. And not base it on speculation and study's from areas that do not share any resemblance to the CNF on topography, plant and weed species, climate, recreational uses, and public education.	
<p><b>Response:</b> The 2006 Custer National Forest Weed EIS was utilized in the analysis and incorporated by reference (DEIS Vegetation - Weeds section). The 2006 EIS was a comprehensive analysis which incorporated exhaustive literature citations, including Sheley and Petroff (1999) form Montana State University. The DEIS disclosed the information that wind, water, and wildlife can also spread weed seeds. The local state and county weed officials were contacted during the 2006 Weed EIS as well. The Forest Service routinely coordinates with them. The DEIS provides evidence that there is a high association with the Custer National Forest inventoried weed populations being found along motorized routes as well as in areas of wildfire occurrence (DEIS Vegetation - Weeds section).</p>		

<b>Subject:</b> Vegetation		<b>Response #:</b> V-24, 2006 CNF Weed Management EIS
<b>Letter-Comment #:</b>  66-89	We request that the document make a fair evaluation of all sources and uses that contribute to the noxious weed problem including hikers, mountain bikers, equestrians (non-use of weed-free hay), etc. The document should also fairly evaluate how natural processes and wildlife spread noxious weeds. The document should include a balanced discussion of the noxious weed problem. The discussions, decisions and measures used to mitigate noxious weeds should be applied impartially to all visitors and with a realistic representation of noxious weeds natural ability to spread versus a relative magnitude for every activity's contribution.	
<b>Response:</b> This analysis tiers to the 2006 Custer National Forest Weed Management EIS and will not be reiterated in the Travel Planning EIS. The DEIS and the 2006 Weed EIS did recognize spread vectors by all types of human uses, natural processes, and wildlife (DEIS Vegetation - Weeds section). The majority of the inventoried weeds on the Beartooth District occur along motorized routes and many are associated with wildfire areas. The Integrated Pest Management Program (including descriptions of the education, prevention, control methods, mitigation measures, monitoring and early detection) was described in the 2006 Weed EIS. To help mitigate weed introduction and spread of weeds, best management practices outlined in the 2006 Custer National Forest Weed Management EIS and Forest Service Manual 2080 are applied impartially to all visitors and users.		

<b>Subject:</b> Vegetation		<b>Response #:</b> V-25, Vehicle Cleaning
<b>Letter-Comment #:</b>  406-12	We require weed free feed for pack and riding stock using the forest - but what has been done for weed free vehicular travel?...Would a requirement that all motorized vehicles and trailers be washed clean (top and bottom) less than 8 hours prior to use on public property, be appropriate?	
418-8	Consider requiring vehicles be clean and weed-free before entering the Forest just as you require weed-free horse traffic. As you know, once introduced, noxious weeds are almost impossible to remove.	
<b>Response:</b> Requiring all motorized vehicles and trailers to be cleaned and weed-free prior to entering all Forest Service land is not a feasible mitigation measure, nor is it enforceable, so it was dismissed from further consideration.		

<b>Subject:</b> Vegetation		<b>Response #:</b> V-26, Vegetation - Impacts
<b>Letter-Comment #:</b>  406-11	The continued motorized use of these routes will only exasperate the existing environmental damage and heighten the nauseating long term repair cost. Continued compaction of soils, denuding of vegetation and deposits of weed seed by vehicles, even the smaller ATV's will lead to irreparable (sic) damage of the environment. At least the conversion to non-motorized trails will lessen the rehabilitation costs and be more resource friendly.	
<b>Response:</b> Vegetation impacts are disclosed in the FEIS Vegetation and Weeds section.		

## WATER QUALITY

<b>Subject:</b> Water Quality		<b>Response #:</b> WQ-1, Opportunities
<b>Letter-Comment #:</b> 40-2	The DEIS indicates that only a small percentage of roads on the District received annual maintenance. We believe there is a need to address road conditions that contribute to degraded water quality and aquatic habitat particularly to address road related water quality impairment in 303(d) listed streams.	
40-5	Efforts to improve road conditions and reduce sediment delivery from roads should be an important element of the Travel Plan. The Custer National Forest, Beartooth Ranger District should coordinate their travel management planning with the Montana DEQ as well as EPA TMDL staff to assure travel plan consistency the TMDLs and water quality restoration plans being prepared by MDEQ.	
40-7	It is not clear to us, however, if adequate resources (funds) are available to implement the field recommendations in Table 3-31 and/or the priority rehabilitation measures in Appendix E to address water quality impacts. The FEIS should identify those recommendations which will be carried out on a timely basis to address water quality impacts of existing roads and adjacent	

**Chapter 5: Response to Comments**

<b>Subject: Water Quality</b>		<b>Response #: WQ-1, Opportunities</b>
	dispersed sites.	
40-12	However, even though we are pleased that the preferred alternative would likely reduce motorized use impacts to water quality, we have concerns that non-use of some routes (#2073F, 2073H, 2085A, 2097C, and 2478) will not fully mitigate water quality impacts, and future actions will be needed to bring such routes into compliance with forest plan standards and water quality regulations (page 3-93).	
461-37	Given that the DEIS already stated that nonmotorized trails have less impacts than motorized routes, the DEIS should provide a breakdown of each trail class type and road maintenance level with information on what mitigation needs would be necessary for each. The DEIS should provide evidence that the BMPs adequately minimize soil impacts before making a blanket statement that there will be no significant impacts from the preferred alternative. We would like to point out that reduced impacts does not necessarily equal adequate mitigation, or meet the E.O. requirement to minimize impacts.	
461-39	Though BMPs are often considered to be sufficient to satisfy this requirement, if motorized use of a route is in violation of the Surface Water Quality Standards, even with application of the BMPs, then the route should be closed until further degradation can be avoided.	
461-40	The DEIS refers to the use of BMPs to satisfy the requirement of preventing degradation or contributing to degradation of already limited streams, and states that BMPs will be more fully discussed later. (DEIS p. 3-77). However, no specific discussion of BMPs, as relating to water quality, can be found in the DEIS, other than a laundry list of general BMPs <sup>6</sup> which does not specify when application of these BMPs is triggered, how they are implemented, or how effective they have proven to be. There is no explanation for how the “reasonableness” of BMPs is determined or whether their application provides for the protection of “present and reasonably anticipated beneficial uses.” (See ARM 17.30.602(25)).	
461-47	However, in order for the analysis to be accurate, and for the list of priority rehabilitation to be effective in reducing actual water quality impacts, unidentified non-system routes need to be addressed. We request that the Custer NF provide a plan and implementation schedule for removing any non-system routes after the release of the Beartooth District MVUM.	
<p><b>Summary of Comments:</b> Several comments expressed concern that existing route and dispersed site impacts to water quality may not receive adequate funding to mitigate the impacts and requested that a rehabilitation plan be incorporated into the travel plan decision. Several comments requested routes or sites that impact water quality be closed until mitigation is applied. Another comment raised concerns over the identification, implementation and effectiveness of best management practices (BMP) to mitigate water quality impacts.</p>		
<p><b>Response:</b> This travel plan process is the first step towards addressing known water quality problems associated with transportation routes and dispersed camp sites. Routes with substantial impacts were either not designated or were designated for administrative use only, and dispersed campsites with substantial impacts were closed. These routes and sites were then added to Appendix E- Opportunities where future analysis would determine the level of mitigation necessary to address the impact. Site specific design of BMPs would occur at this stage. Routes and sites with a lower level of impact that can be addressed through normal maintenance were left open, but again added to Appendix E as a future opportunity. Since out-year funding levels and priorities are unknown at this time, defining a firm schedule for implementation of these opportunities is not possible through this analysis.</p> <p>Publications concerning BMP effectiveness of road maintenance and construction include Logan (2001), Seyedbagheri (1992), and USDA-FS (2002).</p>		

<b>Subject: Water Quality</b>		<b>Response #: WQ-2, TMDL</b>
<b>Letter-Comment #:</b> 40-5	Efforts to improve road conditions and reduce sediment delivery from roads should be an important element of the Travel Plan. The Custer National Forest, Beartooth Ranger District should coordinate their travel management planning with the Montana DEQ as well as EPA TMDL staff to assure travel plan consistency the TMDLs and water quality restoration plans being prepared by MDEQ.	
40-6	We recommend that the impairment status of surface waters within the area be compared vs. the most current 2006 303 (d) list (available at, <a href="http://www.deq.state.mt.us/CWAIC/default.aspx">http://www.deq.state.mt.us/CWAIC/default.aspx</a> ), to be sure that all listed streams are identified in the FEIS.	

<b>Subject:</b> Water Quality	<b>Response #:</b> WQ-2, TMDL
<p><b>Response:</b> TMDL streams on the 2006 303(d) List that were pertinent to this analysis were identified correctly in the DEIS. TMDL streams not identified in the DEIS involve Category 1 and 4C streams (TMDLs not required), and stream segments that do not headwater on the Forest. All streams listed on the 2006 303(d) List within and adjacent to the District are now included in the FEIS along with clarification of TMDL category and location relative to the analysis area. All of these streams are scheduled for TMDL development during the 2009-2012 planning period. Information in the FEIS relative to water quality will be available and provided during this TMDL planning process.</p>	

<b>Subject:</b> Water Quality	<b>Response #:</b> WQ-3, Meyers Creek/Lodgepole Trails
<p><b>Letter-Comment #:</b> 438-1</p>	<p>The proposed conversion of Route #22, Lodgepole Trail and #27 Meyers Creek Trail to non-motorized use is not supported with documentation and scientific rationale for the change. Motor Vehicle Route and Area Designation Guide, National OHV Implementation Team V111705, page 26 states: Purpose and Need. Changes to the forest transportation system are evaluated as site-specific proposal. Each proposed action required a site-specific statement of purpose and need, which should be narrowly tailored to the proposal. The statement of purpose and need should enumerate the rationale for the site-specific changes being proposed. Chapter 3, page 94 refers to 'reduce risks to water resources' by closing the trail to motorized travel, Table 3-31, page 86 shows "Lodgepole Creek, Maintain and monitor". The attached appendix A contains two water quality studies conducted in other areas to be added to the discussion on last paragraph, page 3-82. While they were not conducted on the area in question or in Montana, the conclusions and management actions taken show area closure is not the answer to the possible risk to the water resources and Your Appendix C page 16, offers two different rationales: 1. "Provide additional opportunities for pack and saddle stock". Our comment: With 345,000 acres of the Absaroka-Beartooth Wilderness Area lying within the District it would appear the opportunities already exist in abundance. If there is a need for more pack and saddle stock opportunities, it should be supported by documented monitoring of actual usage in the area. 2. 'Reduce disturbance to wildlife habitat and provide a non-motorized hunting experience'. Comment on the non motorized hunting experience: Documented objective evaluation and monitoring of the hunting areas must substantiate the need for more non motorized hunting experiences. If that need is proven, a restriction on these trail during hunting season would be reasonable mitigation</p>
<p><b>Response:</b> Trails 22 and 27 are proposed for motorized use with motorcycles under Alternative B Modified. A seasonal use period is proposed from 6/15 to 12/1.</p> <p>Thank you for the information you provided on water quality studies of off-road vehicle use in California. Due to the range of variability in site characteristics and conditions across the country, motorized travel has a tremendous variability in type and level of impact. Some sites are much more sensitive to disturbance and less resilient to heal than others. Mitigation that allows motorized use in some areas may not be adequate mitigation, or may be too costly, to allow use in other areas.</p>	

<b>Subject:</b> Water Quality	<b>Response #:</b> WQ-4, Forest Service Handbook
<p><b>Letter-Comment #:</b> 461-41</p>	<p>Chapter 2 refers to the "Soil and Water Conservation Practices Handbook," housed at FSH 2509.22, as containing the applicable BMPs. The internet site for Forest Service directives does not contain a FSH 2509.22. Region 2's Soil and Water Conservation Practices Handbook appears to be housed at FSH 2509.25, but there is no corresponding direction for Region 1. Please explain this discrepancy and provide the appropriate information concerning type and application of BMPs. Finally, the citation for the definition of "naturally occurring" is incorrect and should be ARM 17.30.602(19). There is no ARM 16.20.603.</p>
<p><b>Response:</b> The Soil and Water Conservation Practices Handbook is a regional directive and is not available on the Regional Office or Washington Office website. It is however, available from the project record. The format of this handbook provides an objective, explanation and implementation for each practice listed. Individual practice identification numbers are provided in the FEIS to facilitate reference to the handbook. An effort is currently underway at the Washington Office level to revise this handbook for consistency and use across the entire National Forest System and a final version is expected in 2008 or 2009.</p>	

**Chapter 5: Response to Comments**

<b>Subject:</b> Water Quality	<b>Response #: WQ-4, Forest Service Handbook</b>
Our reference for naturally occurring has been updated to ARM 17.30.602(19).	

<b>Subject:</b> Water Quality		<b>Response #: WQ-5, Cumulative Effects</b>
<b>Letter-Comment #:</b> 461-42	The effect of proposed routes together with existing system routes should be evaluated cumulatively in order to gain a clearer picture of potential environmental impacts. Sedimentation on existing routes is mentioned several times in the analysis and should be fully evaluated in the direct effects of the proposed action. The DEIS states “Due to the large number and miles of routes, GIS analysis using existing spatial data was the only practical method to accomplish this evaluation” (DEIS p. 3-83). While it may be practical to use this approach it is not necessarily accurate if the spatial data excluded non-system routes. Unfortunately the DEIS does not explain the limitations of this approach as is required under the Data Quality Act. Without accounting for the deficiencies of the model, cumulative impacts cannot be adequately analyzed.	
<b>Response:</b> The effects of the proposed actions along with existing routes are analyzed and displayed in the FEIS, as they were in the DEIS. The effects are based on a risk analysis, not a sediment modeling analysis. As stated in the DEIS, “Existing cumulative effects models for water and sediment yield are not adequate to quantify to a single cumulative value, the effects of all the diverse activities in individual drainages including wildfire/prescribed fire, mining, dispersed camping, off-highway vehicle use, grazing, floodplain development, timber harvest, and transportation networks. A combination of individual models could prove useful, but a large amount of additional data (on-ground and spatial) would be necessary to obtain valid results. The only way to address these various activities cumulatively for this travel plan analysis is to address each activity individually and then qualify, in general terms, the cumulative effects between specific activities where appropriate.” Additional information is provided in the FEIS supporting the rationale to not use sediment models for effects determination in this analysis.		

<b>Subject:</b> Water Quality		<b>Response #: WQ-6, Stream Crossings</b>
<b>Letter-Comment #:</b> 461-43	There appears to be no evaluation of the effect of increased use of stream crossings in areas that do not have bridges or other constructed crossings, and therefore are occurring in the streambed itself, stirring up sediment and disturbing stream habitat. There is also no discussion of stream crossings of user created routes that are additions to the system. These effects must be disclosed in order to make a fully reasoned and informed decision.	
<b>Response:</b> Stream crossings are accounted for in the water quality analysis in the FEIS, as they were in the DEIS. The number of crossings of perennial streams and intermittent streams are one of three basic variables used in the route risk analysis. This variable is also used in the cumulative route risk analysis by 6 HUC watershed. Crossings are identified through a GIS intersection of the route layer and stream layer. The route layer includes user created routes as identified during the 1999-2000 field verification effort.		

<b>Subject:</b> Water Quality		<b>Response #: WQ-7, Maintenance</b>
<b>Letter-Comment #:</b> 461-37	Given that the DEIS already stated that nonmotorized trails have less impacts than motorized routes, the DEIS should provide a breakdown of each trail class type and road maintenance level with information on what mitigation needs would be necessary for each. The DEIS should provide evidence that the BMPs adequately minimize soil impacts before making a blanket statement that there will be no significant impacts from the preferred alternative. We would like to point out that reduced impacts does not necessarily equal adequate mitigation, or meet the E.O. requirement to minimize impacts.	
461-44	In addition, Table 3-30 titled, “Route Risk Summary” should display miles and number of routes by specific trail class and road maintenance levels. Without looking at these routes individually, the DEIS cannot adequately evaluate potential water quality impacts because each trail class and road maintenance level have different erosion potentials and therefore different mitigation needs. This demonstrates a need to look more closely at conditions on the ground or at the very least use a modeling system that can adequately account for different trail classes, road maintenance levels and non-system routes.	
<b>Response:</b> Road maintenance levels were initially considered as a potential variable to use in the route risk analysis. However, since the level of backlog maintenance is high, the correlation between any given routes’ maintenance level and the actual maintenance the route receives is poor. Therefore, maintenance levels, or trail class, were not useful or		

<b>Subject:</b> Water Quality	<b>Response #:</b> WQ-7, Maintenance
appropriate variables to incorporate into the route risk analysis.	

<b>Subject:</b> Water Quality	<b>Response #:</b> WQ-8, Vehicle Type
<b>Letter-Comment #:</b> 461-45	While this may be true for some actions, we take exception with the claim that converting system roads to motorized trails open to all motor vehicles will not increase risk for moderate and high risk routes. However, by allowing vehicles over 50” to use these trails, they will in effect act as roads and have the same tread width and vehicle weight/compaction. Even more, their potential for impacts may be greater than a road because maintenance will be based on trail class instead of road maintenance level. The water quality impacts analysis needs to account for this difference instead of making a blanket assertion that all roads to trails conversion will reduce impacts.
<b>Response:</b> Thank you for pointing this out. Since the type of vehicle use or the level of maintenance on these routes is unlikely to change significantly through this action, we anticipate no change in risk to water quality from these actions. This change is incorporated into the FEIS, Water Quality, and Environmental Effects.	

<b>Subject:</b> Water Quality	<b>Response #:</b> WQ-9, Administrative Use
<b>Letter-Comment #:</b> 461-46	Furthermore, the assertion that non-use will adequately mitigate impacts on routes converted to administrative use is questionable at best. While this may occur, the DEIS provides no assurances that there will be adequate monitoring to ensure the mitigation is sufficient, nor does it describe the closure devices or enforcement strategy that will ensure illegal use does not occur.
<b>Response:</b> The DEIS states “ <i>Converting system roads to administrative use reduces traffic and allows revegetation of the road surface to occur, both of which reduce erosion.</i> ” The DEIS did not assert that non-use will adequately mitigate impacts from these actions. In fact, the DEIS, Water Quality, Effects By Alternative, Alternative A states: “ <i>field observations indicate that routes 2073F and 2073H contribute to water quality impacts and this conversion will not mitigate these impacts.</i> ”	

<b>Subject:</b> Water Quality	<b>Response #:</b> WQ-10, Route Risk Analysis
<b>Letter-Comment #:</b> 461-48	The Custer NF should have provided at least one action alternative that does not designate motorized use on moderate and high risk routes. Both the Preferred Alternative and Alternative C add essentially the same amount of non-system routes with moderate or high risk ratings; this is hardly a choice. The West Fork Rock Creek drainage is a municipal watershed, with an A-1 classification from the state of Montana. A-1 classified streams are held to a higher standard than B-1 classified streams, including lower thresholds for coliform and turbidity. There is no alternative which fully protects and improves this important watershed. Heavy dispersed recreation (camping) impacts are occurring in the Rock Creek drainage. (DEIS p. 3-82). However, there is no indication as to how these water quality impacts will be eliminated.
<b>Response:</b> The route risk analysis is a theoretical approach to help determine relative risks (hypothetical impacts) across a broad landscape and the range of alternatives. It is based on limited data input and is not meant to reflect absolute site conditions. It is not appropriate to use the results from this analysis to identify routes for non-designation. That determination should only be based on actual field verified impacts as was done for a number of routes.	
Providing an adequate range of alternatives does not require that every single action within a decision have a range of possible outcomes. The range of designated non-system moderate and high risk routes varies from 0 to 5.4 miles across all alternatives.	

**Chapter 5: Response to Comments**

<b>Subject: Water Quality</b>		<b>Response #: WQ-11, Non-system Routes</b>
<b>Letter-Comment #:</b> 461-49	Finally, it is inappropriate that all alternatives provide for adding user created routes to the transportation system. As admitted in the draft EIS, “[u]nplanned (user created) routes have the potential to be the most detrimental to water quality because of improper location of the route in relation to adjacent streams.” However, many user created routes are adopted into the proposed system under all alternatives. It is inappropriate to add these routes to the system without extensive discussion as to the measures that should and will be taken to mitigate the impacts of these routes to water quality. The effects of these routes cannot be brushed aside by referring to the incorporation of BMPs.	
<b>Response:</b> The Forest Service had extensive discussions on all routes, including user-created routes, to ascertain the appropriateness of designating individual routes. User created routes do have the <i>potential</i> to be the most detrimental to water quality, but not all user-created routes are <i>in fact</i> , impacting water quality. Those user-created routes that were designated, were either found to have no adverse resource impact, or were identified as requiring mitigation and then added to the list of opportunities.		

<b>Subject: Water Quality</b>		<b>Response #: WQ-12, Routes #21407 &amp; #241412</b>
<b>Letter-Comment #:</b> 461-50	The DEIS states “This alternative proposes to add 4.1 miles of moderate and high risk nonsystem routes. Field observations indicate that routes 21407 and 241412 proposed for addition contribute to water quality impacts. Adding these routes to the transportation system will continue these impacts into the foreseeable future until road maintenance occurs, although it is unknown when maintenance would occur.” (DEIS p. 3-93). This is an obvious violation of the E.O.s direction to minimize impacts and should be eliminated from any alternative.	
<b>Response:</b> Actions associated with these routes have been changed in the FEIS. Route 21407 is proposed to be designated contingent on correcting water quality problems, and 241412 is not proposed to be designated.		

<b>Subject: Water Quality</b>		<b>Response #: WQ-13, Sediment Production</b>
<b>Letter-Comment #:</b> 66-19	A sense of magnitude must be used when making decisions about road closures based on indicators such as sediment production. For example, a route should not be closed because it is estimated to produce 10 cubic yards less sediment. The sediment yield must be compared to naturally occurring conditions which includes fires. The recent fire in the Custer National Forest discharged thousands of cubic yards of sediment to the area streams which is more than all of the motorized routes in the project area for the next 100 years.	
66-164	Therefore, the impact of recreation should be fairly compared to the impact of floods, wildfire, and other natural events on all resource areas. These comparisons should also include natural levels of noxious weeds, carbon dioxide production ( <a href="http://www.cbmjournals.com/content/pdf/1750-0680-2-10.pdf">http://www.cbmjournals.com/content/pdf/1750-0680-2-10.pdf</a> ), deforestation, erosion and sediment production, and loss of organic material....Sediment production associated with motorized recreation cannot begin to compare to this magnitude and, therefore, it is not reasonable use sediment as a basis to close motorized recreational opportunities when impacts from “Let it burn” and other management policies are a million times greater and considered acceptable.	
<b>Response:</b> Sediment production from travel routes was not quantified for this analysis due to numerous issues associated with existing sediment models as relayed in the DEIS. Erosion and sediment transport was discussed in both general terms, and in specific terms in relation to various activities.		
As stated in the DEIS, “ <i>Watersheds, undisturbed by human influences, are not static systems. Deep snow packs and heavy spring rains can cause substantial flooding, landslides and instream erosion. Wildfire, wind, or insect and disease mortality can drastically alter the vegetative composition of a watershed. Depending on the extent of mortality and rate of stand decomposition, impacts to stream systems can also be substantial. Beneficial uses, including fisheries habitat, can be negatively affected by these natural events. However, watersheds left undisturbed after natural events, can and do recover rapidly, and ultimately provide conditions that fully support all beneficial uses within a relatively short period of time. These natural disturbances occur infrequently, which allows for significant and generally rapid recovery of hydrologic and erosional processes prior to the next major disturbance event. This results in pulse effects to water resources, which are moderate to high in magnitude, but low in frequency. Within the current climatic regime and prior to significant human influence, stream systems have developed under pulse type</i>		

<b>Subject:</b> Water Quality	<b>Response #:</b> WQ-13, Sediment Production
<p><i>disturbances. The effects from recurring or continual human activities are considered <u>chronic</u>. Although chronic effects are generally low to moderate in magnitude, they occur with moderate to high frequency. In contrast to pulse effects, chronic effects may not allow for significant recovery of the soil and water resource over time.</i></p> <p>For this reason, human caused sediment is an issue and Montana Water Quality Law requires that human caused sediment loading to surface waters be minimized for all land management activities. Under ARM 17.30.623 (2) (f) (B1 waters) “No increases are allowed above naturally occurring concentrations of sediment, settleable solids, oils, or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.” Naturally occurring is defined in ARM 16.20.603 as: “the water quality condition resulting from runoff or percolation, over which man has no control, or from developed lands where all reasonable land, soil and water conservation practices have been applied”. Reasonable land, soil and water conservation practices are similar to Best Management Practices (BMPs). BMPs are considered reasonable only if beneficial uses are fully supported. (DEIS/FEIS, Water Quality, Affected Environment)</p>	

<b>Subject:</b> Water Quality	<b>Response #:</b> WQ-14, Dispersed Camping
<b>Letter-Comment #:</b> 66-44	Dispersed campsites are very desirable camp sites. Closure of these sorts of dispersed campsites would have a very significant impact on the public and we request that they remain open. If water quality concerns are the basis for these closures, then there are reasonable alternatives to mitigate these concerns, such as allowing only self-contained camping units to use them. Additionally, a sense of magnitude needs to be applied when assessing the water quality impacts from camping. For example, it appears that cattle grazing along the stream have a much greater impact than any camp site that we observed. Now don’t get us wrong, we support all reasonable multiple-uses of the forest including cattle grazing. We are concerned that the incremental impacts on the public of closing dispersed camp sites are relatively significant while the real improvement to the environment will be relatively insignificant. Again, we request that all reasonable camp sites located along water courses remain open.
66-45	If dispersed camp sites are to be closed based on water quality concerns, then we request that the decision include a water quality monitoring program to establish the baseline water quality prior to the closure of dispersed camp sites and continue that program after the closure to establish whether any significant water quality improvement was realized. The decision should also include a provision to re-open closed camp sites when no significant improvement in water quality was realized by the closure.
<p><b>Response:</b> The majority of dispersed campsites reviewed have minimal or no impact to water quality. This is due to site characteristics that are relatively resistant to normal human activities that occur from camping. Characteristics that increase the risk of impact include 1) sites that confine and route surface runoff to trails that access streams, 2) sites located directly adjacent to streams where no filter distance exists to trap sediment, and 3) sites adjacent to stream banks composed of fine textured soils that are easily destabilized by foot traffic, are difficult to revegetate and are prone to erosion by high streamflows. These sensitive sites are deemed too costly to maintain and difficult to rehabilitate after impacts have occurred.</p> <p>The water quality impacts of single or multiple dispersed sites would not likely be detectable in streamflow because 1) the sediment load from the site is minor relative to numerous other sediment loads from the upstream watershed, both natural and human caused, 2) variability in sediment production and transport due to variability in precipitation events, and 3) inability to differentiate sediment loads of dispersed sites from other sediment sources upstream. Monitoring on-site ground conditions and determining whether or not sediment is routed to stream systems is preferred to monitoring streamflow water quality.</p>	

<b>Subject:</b> Water Quality	<b>Response #:</b> WQ-15, Routes in the Pryors
<b>Letter-Comment #:</b> 68-20	The Pryors Coalition has recommended that Island Ridge road, 2093, be permanently closed, as it is little used and unnecessary. Additionally there are water quality concerns.
68-21	The road leaving the junction with 2092 goes into the Commissary Creek drainage. The initial section is through clayey soil that is very slick when wet. Commissary Creek pools before it flows over the road. There is no culvert to protect either road or stream.
68-22	Less than a half-mile is a wooden cattleguard which is rotting. Soon it will be difficult for a

**Chapter 5: Response to Comments**

<b>Subject: Water Quality</b>		<b>Response #: WQ-15, Routes in the Pryors</b>
		wheeled vehicle to pass that point unless the Forest Service fills the ditch under the guard. Perhaps there are plans to replace the wooden cattleguard with a metal one.
68-25		The roads 2492 and 2814 become hellacious in the northern half of section 74 and the southern half of sections 28 and 27 in T 8S R 26E... There are places where the roads are steep and the drainage is directly down the road. Any soil and gravel has been washed out.
68-27		The section of 2850, Stockman Trail, between the junctions with 28507 and 28505 is one of the worst braided roads in the Pryors... The multiple parallel roads are subject to erosion even though they are on contour. Seasonal closure is not a solution to healing his quagmire. I recommend that this section be permanently closed.
467-16		As to specific trouble areas, the geology, topography and soil science related to the steeper portions of Forest Service roads 2496 (Miller Trail) and 2850 (Stockman Trail) combine to create a soil erosion and water quality problem. The soil underlying these roads easily ruts and erodes. When it is carrying water, Ingraham Creek runs down onto Stockman Trail and alongside it for a quarter-to a half-mile, picking up sedimentation from the erosion and washing it downstream. The Forest Service should study this and perform corrective maintenance before marking the road open.
<b>Summary of Comments:</b> Water quality concerns with specific routes in the Pryors.		
<b>Response:</b> Thank you for all the information on erosion problems along these routes. Route 2093 and portions of route 2850 are proposed for seasonal closure and should address some of the erosion problems. However, because the watercourse next to Stockman Trail has an intermittent or ephemeral flow regime, and sediment and flow drop out when valley bottom grade flattens out, water quality issues do not exist relative to any perennial stream downslope. All of the problems you have identified are included in Appendix E- Resource Improvement Opportunities and will be addressed as funding becomes available.		

<b>Subject: Water Quality</b>		<b>Response #: WQ-16, Wetlands</b>
<b>Letter-Comment #:</b> 40-16		We believe the FEIS should include some disclosure of potential travel management impacts upon wetlands, and if no impacts are expected, at least state that.
<b>Response:</b> The route risk analysis is a surrogate for effects to streamside wetlands (riparian areas). Routes, or portions of routes that lie within 100 feet of perennial or intermittent streams is a variable in the analysis that increases the route risk index. Routes with these characteristics generally fall into the moderate or high risk category, although not all moderate and high risk routes contain substantial streamside wetlands. Isolated wetlands are a much more difficult resource to access the impacts from transportation systems, especially on a large scale. Field reviewed routes were the means to identify impacts and only one isolated wetland was found, although it could also be linked to the very upper end of the headwaters of Crooked Creek. Route 2097C is an alternate route to the Sage Creek Guard Station and crosses a wetland area with seeps. This is an existing system route that would <u>not</u> be designated under Alternative B Modified.		

**WILDLIFE**

<b>Subject: Wildlife</b>		<b>Response #: WL-1, Impacts of Motorcycles on Wildlife Security</b>
<b>Letter-Comment #:</b> 25-1		If it is a game wintering area motorcycles won't be there during that time of the year anyway.
25-2		If it is a game crossing area motorcycles won't and don't have any negative impact on that either.
190-1		These two trails are #27- Meyers Creek and #22 - Lodgepole. The main reason given is due to the interruption of the game migration patterns. Do you have documented studies of this? If so we would like to see these studies and over how many years have they been done? The reason for our or my concern is that the authorized use of these trails as well as others had been going on for 50 years. The use of these trails has not produced user conflict or created resource damage. The use of these trails by motorcyclers has been to produce that Forest outdoor experience while not being subjected to other forms of motorized use.

<b>Subject:</b> Wildlife		<b>Response #: WL-1, Impacts of Motorcycles on Wildlife Security</b>
396-10	Wildlife security is not threatened by motorcycle use unless they are purposely being chased or harassed, which is illegal. A study performed at Montana State University on wildlife proved that animals showed lower heart rates and shorter flight distances when approached by motorized vs. non-motorized users because the element of surprise does not exist with motorized users like it does with hikers, horses, and mountain bikes.	
<b>Summary of Comments:</b> Questions the impacts of motorcycles on big game and wildlife security. One commenter requested to see studies.		
<b>Response:</b> The Forest Service has not conducted studies of big game use of this area. Information on big game use was provided by Montana Fish, Wildlife and Parks. Elk migrate through the Meyers Creek and Lodgepole Creek areas in spring and fall as they move between summer and winter range. In addition, the lower portions of both drainages provide mule deer winter/spring range and spring moose calving habitat. Few studies specific to effects of motorcycles are available. Detailed information and cited literature regarding impacts of motorized recreation on big game and other wildlife is in the Affected Environment-Management Indicator Species: Elk and Affected Environment - General Wildlife sections of the FEIS. Additional information is in the wildlife report in the project file.		

<b>Subject:</b> Wildlife		<b>Response #: WL-2, Route #22 (Lodgepole) &amp; #27 (Meyers)</b>
<b>Letter-Comment #:</b> 28-1	We would like to see these areas closed to motorized vehicles. Closing to motorized vehicles would minimize impacts on the elk migration/reduce disturbance to high quality wildlife habitat & provide a non-motorized area for hikers/horseback riding & hunting...	
29-1	I agree with alternative B and C for the Lodgepole and Meyers Creek areas. This remote location should be closed to motorized vehicles to minimize impacts on elk migration through the area and to keep to a minimum any disturbance of wildlife habitat.	
32-3	Closing these roads to vehicles would not only help to minimize the impact on elk migration, but would also help to reduce disturbances to the habitats of the incredible wildlife that exist here	
33-1	I agree with Alternative B & C for Lodgepole and Meyers Creek areas. As former landowners, then annual visitors, and now current leasees of property bordering on both Lodgepole and Meyers Creek area since 1975, my family holds sacred the continued remoteness and quiet of the wilderness areas in question. These areas are no place for motorized vehicles; the noise, air pollution and general disturbance of the vehicles change the complexion of one of the most beautiful spots in the state (and country), not to mention the negative impact on important elk migration and all the high quality wildlife habitat these areas provides. Closing these areas to vehicle traffic would also provide a much-needed non-motorized area for hikers/horseback riding and hunting.	
35-1	I am writing in support of Alternative B & C for the Lodgepole and Meyers Creek areas. I encourage this closure for several reasons. I was born in the beautiful Lodgepole valley and even though I no longer reside there it is my hope and dream that it be preserved for future generations. By closing these areas to motorized access this will assist in keeping this area in its natural habitat. Non-motorized access would assist in minimizing impact on the natural elk migration that occurs in this area, as well as, reduce disturbance to a high quality wildlife habitat. By allowing foot traffic there will still be access to the public for a first class non-motorized area for hikers, horseback riding and hunting while preserving a pristine valley for years to come.	
65-1	I wanted to cast my 2 cents worth in support of either Alternative B or C for the Lodgepole Meyers Creek Areas. The best case scenario would be to close it completely to motorized traffic to minimize impact on game habitat and yet keep it available to access for foot traffic and horse traffic to the more remote areas to the north.	
<b>Summary of Comments:</b> Supports closing Lodgepole and Meyers Creek areas to motorized vehicles to minimize impacts to elk and high quality wildlife habitat.		
<b>Response:</b> The Lodgepole and Meyers Creek trails would remain open to motorcycles under Alternative B Modified, with a season of use for protection of big game. The Forest Service believes that designation of these two trails for motorcycle use with a season of use to reduce impacts to wintering big game and moose calving is a reasonable approach to management of these two routes.		

**Chapter 5: Response to Comments**

<b>Subject:</b> Wildlife		<b>Response #: WL-3, FWS Concurrence</b>
<b>Letter-Comment #:</b> 40-21	EPA recommends that the final EIS and Record of Decision include documentation of U.S. Fish & Wildlife Service concurrence with these "no effect" assessments upon T&E species. If the consultation process is treated as a separate process, the Agencies risk USFWS identification of significant impacts, perhaps additional mitigation measures, or changes to the preferred alternative.	
<b>Response:</b> Documentation from the Fish and Wildlife Service is standard procedure and will be provided in the FEIS Chapter 4 – Consultation section.		

<b>Subject:</b> Wildlife		<b>Response #: WL-4, Short-horned Lizard</b>
<b>Letter-Comment #:</b> 41-4	In the wildlife review section, greater short horned lizards are mentioned as inhabiting the area. However, the DEIS states that no plan will increase habitat access that may effect this species. This is an incorrect statement and further work should be done to properly determine the current distribution of this species and the potential impacts.	
<b>Response:</b> In the FEIS, Alternative B Modified would have 25 fewer miles of designated motorized route in the Pryor Mountains than the No Action alternative (124 vs 149 miles) and 42.5 fewer miles than Alternative A, the most motorized alternative (124 vs. 166.5 miles). The FEIS Alternative A includes all routes identified in the 1999-2000 inventory, including non-system routes, except for those that would not be designated for public use under any action alternative. Since new routes are not proposed, there would be no increase in access to short-horned lizard habitat. In addition, Werner, et al (Amphibians and Reptiles of Montana, 2004) state, “Habitat alteration is probably the biggest threat to the Greater Short-horned Lizard.” The travel planning process addresses existing routes, thus habitat alteration has already occurred.		

<b>Subject:</b> Wildlife		<b>Response #: WL-5, Sensitive Snake Species</b>
<b>Letter-Comment #:</b> 41-5	... both hognose and milk snakes are not considered to be in the area in the DEIS, which may also be incorrect without specific surveys to search for these species that are highly elusive and difficult to find. I found no citation for evidence that survey work for these species has ever been done.	
<b>Response:</b> Surveys for hognose snakes and milk snakes have not been conducted on the Beartooth District. The lowest elevation on the Beartooth District is approximately 5000’, well above the highest known elevations that Werner, et al (Amphibians and Reptiles of Montana, 2004) show of 4,060’ for hognose snakes and 3,960 for milk snakes. We recognize the potential for species to occur outside their known geographic and elevational range. However, with site specific data not available, we used information that is known about these species in Montana.		

<b>Subject:</b> Wildlife		<b>Response #: WL-6, Seasonal Closures</b>
<b>Letter-Comment #:</b> 41-6	Seasonal closures should be a part of both Alternative B and C. Seasonal closures for ground nesting birds and songbirds should also be an option that is offered under a plan.	
66-94	Therefore, reasonable alternatives to the closure of motorized roads and trails exist and can be used to address wildlife concerns. We request that these sorts of reasonable alternatives to closure of roads and trails to motorized visitors be adequately considered and incorporated into the preferred alternative.	
310-1	I even agree with further off-road restrictions during hunting season to protect big game, but this is as far as it should go.	
396-14	Instead of completely closing motorized trails in wildlife migratory corridors, a shorter season could be implemented. This method has been used for many years in part of the South Boulder drainage of the Tobacco Root Mountains in the Beaverhead national Forest to protect mountain goats.	
<b>Summary of Comments:</b> Some respondents felt that additional seasonal closures should be included to protect ground nesting birds and songbirds. Others felt that seasonal closures should be used instead of permanent motorized road and trail closures for wildlife protection.		
<b>Response:</b> Seasonal closures for protection of various resources, including wildlife, are included in all alternatives in the FEIS.		

<b>Subject: Wildlife</b>		<b>Response #: WL-7, Peregrine Falcon</b>
<b>Letter-Comment #:</b> 41-7	Peregrine falcon nests are very rare in eastern Montana and the Pryor's comprise well over half the know sites in the eastern part of the state. Therefore these sites should be protected to fullest from possible disturbance, even if it means closing major road sections seasonally.	
<b>Response:</b> Seasons of use to minimize road damage during snow melt would protect the peregrine falcon nest during the earlier part of the nesting season. We recognize that the latter part of the nesting season would not be covered by the season of use. However, the Custer National Forest Land and Resource Management Plan Amendment Number 20 specifies a ½-mile-radius (or less if deemed appropriate after an on-the-ground biological review) no-disturbance zone around peregrine falcon nests from February 1 to August 15. The amendment applies specifically to oil and gas leasing activity, but we could use it as a guideline in travel planning. The known nest in the Pryors is greater than ½ mile from the nearest road that would be open for public motorized travel. In addition, future road closures could be put in place by Custer National Forest Special Order if the Forest Service determines that peregrine falcons are at risk.		

<b>Subject: Wildlife</b>		<b>Response #: WL-8, Route #2144 (Punchbowl)</b>
<b>Letter-Comment #:</b> 53-1	I strongly recommend that the Punchbowl route #2144 be closed to motorized public use east of section 29 (including segments in sections 28, 27, 22, and 23). Official administrative and non-motorized public activities such as hiking and horse riding uses of the track would be compatible with wildlife restoration.	
129-17	Eliminating motorized use of #2144 could help the return of elk to the area.	
386-18	Road #2144 into Punchbowl needs to be closed to motor vehicles to allow secure wildlife habitat in this potentially excellent habitat.	
<b>Response:</b> Road #2144 east of 2144H would be designated with a season of use to minimize road damage during spring breakup, which may potentially benefit some wildlife. However, other resources were also considered during the travel planning process and the Forest Service believes that designation of Road #2144 with a season of use, as identified in Alternative B Modified, is a reasonable approach to management of this route.		

<b>Subject: Wildlife</b>		<b>Response #: WL-9, Route #2088</b>
<b>Letter-Comment #:</b> 106-6	<b>Please close Route 2088</b> , a 2-track route that penetrates miles into the Big Pryor hiking, riding and resource protection area. That area should be kept intact, without motorized traffic, for quiet public uses and wildlife habitat.	
124-17	We do not agree with the proposal to open road 2088 on Big Pryor to motorized use because doing so would impact deer and potential elk habitat.	
129-18	The Pryors Coalition also strongly recommends against opening #2088 to motorized use. This area could, like Punchbowl, be good secure habitat for deer and elk. The Pryors Coalition 9 Road #2088 also goes through some culturally sensitive areas. In the Cultural Resources part of the DEIS the Forest expresses concern about both Alternatives B and C.	
333-1	#2088 should not be open to motorized use west Crater Ice Cave. I want this area preserved for quiet and reflective use and wildlife.	
403-4	Also Route #2088 should not be open to motorized use into the Big Pryor North Hiking, Riding, and Resource Protection Area. Keep this area for the quiet users including wildlife.	
<b>Summary of Comments:</b> Road #2088 should be closed to motorized use to provide secure habitat for wildlife, including deer and elk.		
<b>Response:</b> A 2.2 mile section of Road #2088 to the east of the junction with Road #2095A would partially address the above concerns. The remainder of Road #2088 would be designated with a season of use to minimize road damage during spring break up. It is recognized that closure of the designated portion of the route may potentially benefit wildlife. However, other resources, such as recreation opportunities and access to range improvements, were also considered during the travel planning process. The Forest Service believes that designation of portions of Road #2088 with a season of use is a reasonable approach to management of this route..		

<b>Subject: Wildlife</b>		<b>Response #: WL-10, Route #20972 (Roberts Bench)</b>
<b>Letter-Comment #:</b> 386-20	Road #20972 (Roberts Bench) should be closed to motor vehicles to protect soil, wildlife habitat, and open space (as promoted in the CNF '04 DEIS).	
<b>Response:</b> In the FEIS Alternative B Modified, the first 0.59 mile of Road #20972 would be designated for motorized use. The remainder of the road would not be designated. There are no specific soil or wildlife habitat concerns associated with maintaining the first 0.59 miles of this route.		

**Chapter 5: Response to Comments**

<b>Subject: Wildlife</b>		<b>Response #: WL-11, Type of User</b>
<b>Letter-Comment #:</b>  387-7	Heart monitors were put on elk in Yellowstone Park and the heart rate and flight distances were recorded as snowmobiles and cross country skiers went by. (Ward, A. L. and J. J. Cupal. 1976. Telemetered heart rate of three elk as affected by activity and human disturbance. USDA Forest Service, Rocky Mountain Forest and Range Experiment Station. Laramie, WY. 9 pp.). Elk were disturbed twice as much from non-motorized passer bys as from motorized. This discovery can be transferred to ATV and motorcycle use in the summer in relation to hikers and not to mention the impact on wildlife from dogs. Motorized users rarely take pets with them and as in Bozeman we are seeing a huge impact from dogs on our public land. The Forest Service must take this information in to account when deciding the allowed uses of our federally managed public land.	
<b>Response:</b> The reference to Ward and Cupal (1976) was reviewed and is consistent with analysis located within Chapter 3 of the FEIS. The effects of both motorized and non-motorized uses (including pets) on elk have been evaluated and described in the Wildlife section of Chapter 3. To analyze the general effects of motorized and non-motorized routes on wildlife, a one km buffer on each side of a route was used as suggested by Ruediger (1996). This is considered the “virtual footprint” (Forman et al. 2003) of the route on the land. This is an average, but the true impacts of routes vary significantly with terrain, vegetation, amount and types of use on the route, species-specific behavior, and other factors.		

<b>Subject: Wildlife</b>		<b>Response #: WL-12, General Wildlife Impacts</b>
<b>Letter-Comment #:</b>  66-47	The impact of OHV recreation on wildlife has been overstated by the agency and wildlife biologists. First, wildlife populations are at all time high ( <a href="http://www.mtstandard.com/articles/2005/11/30/outdoors/hjjeigjjcefjb.txt">http://www.mtstandard.com/articles/2005/11/30/outdoors/hjjeigjjcefjb.txt</a> ) at the same time when OHV use is increasing. If there is any impact to be identified, it appears that it should be that the positive impact associated with increasing OHV use and increasing wildlife populations. Secondly, OHV use does not kill wildlife. Wildlife coexists just fine with OHVs. This was recently confirmed again by a study in Yellowstone Park which found that “Most elk, bison and trumpeter swans barely reacted last winter to the presence of snowcoaches and snowmobiles in Yellowstone National Park, according to a study released Tuesday. Scientists watched more than 2,100 interactions between over-snow vehicles and wildlife last year to try to determine how they responded. Of those, 81 percent of the animals had no apparent response or they looked and then resumed what they were doing, the study said” ( <a href="http://www.helenair.com/articles/2005/12/14/montana/a10121405_04.prt">http://www.helenair.com/articles/2005/12/14/montana/a10121405_04.prt</a> and <a href="http://www.nps.gov/yell/parkmgmt/upload/winterrec05.pdf">http://www.nps.gov/yell/parkmgmt/upload/winterrec05.pdf</a> ). It appears that the disturbance of wildlife by OHV issue including wildlife corridors is being exaggerated to further the conversion of multiple-use lands to non-motorized lands....Hikers and wolves impact wildlife more than OHV use yet hikers and wolves are unrestricted....Some interests are pushing the wildlife corridor concept as a reason to close areas to motorized use....Significant issues must be answered before this concept can be given any credibility. Issues include: 1. Why would wildlife follow physically challenging basin divides where food and water is scarce versus other corridors? They don’t. This is easily verified by open areas such as McDonald Pass of the jagged areas of the continental divide where we have never observed any significant number of wildlife crossings versus great numbers of wildlife crossing that we have observed in other area that are more favored by wildlife. 2. There is no data or credible documentation that the continental divide or other basin divides are favored for wildlife migration. Especially theories that purport that wildlife will migrate form Mexico to Canada. This is counter to the types of habitat that different species require in order to survive. There is a significant lack of credible evidence to support the wildlife hypothesis. 3. The lack of authorization or mandate from congress for this sort of designation and use of public land. 4. The socioeconomic issues associated with the attempt to use the wildlife corridor concept to convert multiple use lands to defacto wilderness.	
250-3	On BLM lands along the south face of Red Pryor Mountain, is a network of roads. These roads where often used by many individuals for access to the mountain. Bighorn sheep, horses, bears, etc....are abundant in the area and the roads do not seem to impact them. Certainly the existing roads on USFS lands do not impact the wildlife in the manner in which the opposition claims.	

<b>Subject: Wildlife</b>		<b>Response #: WL-12, General Wildlife Impacts</b>
411-53	The CNF statement that a 1-kilometer wide impact area exists on all trails and roads is an opinion of the forest service and does not have proven science to support this issue. It exaggerates the footprint on the forest to uneducated people. The real on the ground width on the trails and roads should be used and gives an accurate number of miles and acreage that is being used by the public.	
421-34	According to the Yellowstone Elk Survey, there are no findings that the motorized sports affect the Elk any different than the non-motorized traffic yet the motorized sports are having to pay the price of old studies that could have conclusions to reach either side of the issue. If studies are done to determine the affects on wildlife and the studies find that there are no direct affects from motorized use, how can the Forest Service say they are closing the areas to preserve the wildlife that the motorized users are not bothering? ...With this in mind, we ask that those closures to OHV use designed to protect identified habitat be dropped from this plan, allowing the research project to move forward.	
<b>Summary of Comments:</b> Questions that motorized use actually affects wildlife.		
<b>Response:</b> The majority of literature and research regarding the effects of human activities on wildlife support the conclusion that motorized use has greater adverse impacts than non-motorized use. The literature does not support the notion that OHV use has a positive impact on wildlife. Detailed discussions and literature citations regarding effects of roads, motorized (including ATV's) and non-motorized use on wildlife are in the Affected Environment – Sensitive Species: Grizzly Bear, Affected Environment – Management Indicator Species: Elk, and Affected Environment - General Wildlife sections of the FEIS. Additional information is in the wildlife report in the project file.  The Affected Environment - General Wildlife section of the FEIS discusses types of wildlife susceptible to being killed by motorized vehicles on various types of roads. Additional information is in the Affected Environment - General Wildlife – Mortality section of the wildlife report in the project file.		

<b>Subject: Wildlife</b>		<b>Response #: WL-13, Robertson Creek Area</b>
<b>Letter-Comment #:</b> 421-19	All existing roads should remain open. A way to connect trails should be explored and implemented. Trails 2008, 2008A, & 20084 should remain Open along with trails 2009 & 20094 with no seasonal closures. They should remain open all the way and dead end at the mines, 1 1/2 to 2 miles past where 7 begins. No Elk Security because there are no elk in this area due to the wolves driving them out. 20094 & Robinson Creek are the only 2 access points from Red Lodge to the Wyoming border.	
<b>Response:</b> Seasonal closures are in effect in the Robertson Creek area to protect elk winter range. We recognize that elk use of this area has declined over the past few years, but the reasons for the decline are not known. Based on discussions with Montana Fish, Wildlife and Parks, recent elk movements indicate that elk will likely reoccupy the winter range in the near future. Thus, seasonal closures will remain in effect to facilitate that reoccupation.		

<b>Subject: Wildlife</b>		<b>Response #: WL-14, Grizzly Bear - Delisting</b>
<b>Letter-Comment #:</b> 66-100	The current analysis does not adequately consider grizzly bear delisting under the Reasonably Foreseeable actions. This action is imminent...Other pended delisting of endangered species must also be considered.	
<b>Response:</b> Grizzly bears were delisted effective April 30, 2007 as described in the Affected Environment – Sensitive Species: Grizzly Bear – Regulatory Framework section of the FEIS. To help prevent future relisting, the Custer National Forest will abide by the standards for management of grizzly bear habitat as directed in the Forest Plan Amendment for Grizzly Bear Habitat Conservation for the Greater Yellowstone Area National Forests (USDA Forest Service, April 2006) and the Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area (Interagency Conservation Strategy Team, March 2007). Bald eagles were delisted effective August 8, 2007 but were not analyzed because they typically occur on the District during winter, and winter over-the-snow travel is not part of this project. Canada lynx are not expected to be delisted in the foreseeable future. Gray wolf delisting will become effective March 28, 2008. Least tern and black-footed ferret habitat does not occur on or near the Beartooth District, thus these species were not analyzed.		

**Chapter 5: Response to Comments**

<b>Subject:</b> Wildlife		<b>Response #: WL-15, Grizzly Bear – Motorized Use Effects</b>
<b>Letter-Comment #:</b> 461-68	Taken together, these threats and the precarious status of the grizzly population indicate that the grizzly is indeed on a trend towards listing and the Custer must take appropriate actions to prevent that from occurring. Analysis of the effects of increased motorized use and access on the grizzly are inadequate and do not fully evaluate how increasing use in these areas will contribute to the trend towards re-listing of the grizzly, or even how the effects on grizzly will be minimized, as required in the E.O. Finally, the analysis of sensitive species and wildlife generally does not satisfy the requirement of the National Forest Management Act that the Forest Service must ensure that a diverse population of wildlife will be maintained in the planning area. (See 16 U.S.C. § 1604(g)(3)(B)). There is no indication by the analysis presented that a diverse wildlife population will be maintained.	
<b>Response:</b> The Yellowstone grizzly bear population was delisted effective April 30, 2007, and thus is not on a trend toward listing. To help prevent future relisting, the Custer National Forest will abide by the standards for management of grizzly bear habitat as directed in the Forest Plan Amendment for Grizzly Bear Habitat Conservation for the Greater Yellowstone Area National Forests (USDA Forest Service, April 2006) and the Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area (Interagency Conservation Strategy Team, March 2007). Discussion on effects of increased motorized use and access on grizzly bears has been added to the Environmental Consequences – Sensitive Species: Grizzly Bear in the FEIS to address that portion of the comment. Wildlife diversity is addressed through the concept of focal species as discussed in the FEIS Affected Environment – General Wildlife.		

<b>Subject:</b> Wildlife		<b>Response #: WL-16, Grizzly Bear – Cumulative Effects</b>
<b>Letter-Comment #:</b> 467-25	For grizzlies, similar to Lynx, the DEIS reaches the flawed conclusion that "[g]iven that over 96% of the [Primary Conservation Area] and over 91% of the biologically suitable habitat outside the [Primary Conservation Area] would continue to be secure habitat under all alternatives, cumulative effects of past, present, and reasonably foreseeable future actions is expected to be small." DEIS at 3-161. The conclusion is flawed because, like the DEIS' analysis for lynx, it ignores the fact that cumulatively significant impacts can result from "individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7.	
<b>Response:</b> Forest Service recognizes that generally speaking, individually minor impacts have potential to create cumulatively significant impacts. However, on Forest Service lands in the project area, the proportion of grizzly bear habitat inside the Primary Conservation Area (PCA) and biologically suitable habitat outside the PCA that could potentially have activities contributing to cumulative effects is a relatively small proportion of available habitat. In addition, the Forest Plan Amendment for Grizzly Bear Habitat Conservation for the Greater Yellowstone Area National Forests (USDA Forest Service, April 2006) and the Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area (Interagency Conservation Strategy Team, March 2007) provide standards for management of grizzly bear habitat that the Forest Service must comply with. Forest Service adherence to the guidelines reduces potential for cumulative impacts of activities on Forest Service lands.		

<b>Subject:</b> Wildlife		<b>Response #: WL-17, Cumulative Effects - Encroachment</b>
<b>Letter-Comment #:</b> 66-101	The encroachment of residences into the forest is often the most significant factor contributing to the loss of summer and/or winter wildlife habitat. First, we request that the impact of these permanent encroachments be quantified and compared to the relatively minor impact that mechanized forest visitors have on wildlife habitat.	
<b>Response:</b> The Forest Service does not control the development of private land inholdings within the forest boundary. A short discussion of this impact is included in the FEIS in Environmental Consequences – General Wildlife – Cumulative Effects.		

<b>Subject:</b> Wildlife		<b>Response #:</b> WL-18, Cumulative Effects – Alternative C
<b>Letter-Comment #:</b> 425-7	Question: since the economic impact either for non-motorized use or motorized use is apparently not "cumulative" and "small", why not then select Alternative C which converts 13 miles of roads to administrative use only and adds seasonal restrictions on 27 miles of moderate and high risk routes and has the potential of having the lowest impact on wildlife (and Plant) mortality as well as having the least adverse effects on susceptible bird species.	
<b>Response:</b> The Forest Service is required to consider more than just impacts to natural resources and economics. Consideration must also be given to recreational/social issues. Alternative B was identified in the DEIS, and Alternative B Modified in the FEIS, based on information from the analysis which indicated they would provide a wide range of recreation access opportunities, while still providing for the sustainability of natural and cultural resources in the project area.		

<b>Subject:</b> Wildlife		<b>Response #:</b> WL-19, Secure Habitat – Motorized Use
<b>Letter-Comment #:</b> 107-1	The trail density and extensive OHV use allowed does not provide secure areas for wildlife that are essential for rest, nutrition and reproduction.	
307-24	The Forest Service has said that the Travel planning process does not allow them to designate non-motorized areas as suggested by the Pryors Coalition proposal. However, there is nothing preventing the Forest Service from not designating roads through the middle of these suggested areas so that they may be designated later in the Forest Planning process. For this reason, Road 2088 past Crater Ice Cave, Road 2093 (Cave Ridge Road), Road 20972 on Roberts Bench, and Road 2144 in the Punchbowl area should be closed. Closing these roads would also provide much needed secure wildlife habitat and in the case of Road 2088 protect the existing cultural resources.	
394-1	Alternative B fails to designate areas for protection of wildlife and other natural resources, and for quiet recreational pursuits. It is critical that significant blocks of this special landscape be set aside from the impacts of motorized use. We are disturbed and disappointed that Custer National Forest chose not to formally designate such areas in this Travel Plan. We believe that Forest regulations both allow and encourage such an action - as do principles of responsible land management. If such designations are not made in this Travel Plan then at least the opportunity to do so in future must be preserved in the choices of which particular routes to designate for motorized use. Acceptance of motorized use of routes #2088 on Big Pryor Mountain (including #2095A). Punchbowl route #2144, and an overabundant number of motorized routes up the southwest face will prevent appropriate designation of protected zones in the future.	
397-3	These areas (Pryors) need to be kept natural and off limits to all motorized vehicles to protect critical wildlife habitat and to provide the quiet solitude that I and many other users seek.	
467-32	Two-track route #2088 past Crater Ice Cave and route #2492 on Big Pryor Mountain's southwest slope should be non-motorized, in order to protect wildlife habitat....	
<b>Summary of Comments:</b> Secure habitat needs to be provided for wildlife. Road 2088 past Crater Ice Cave, Road 2093 (Cave Ridge Road), Road 20972 on Roberts Bench, Road 2492 (Bear Canyon Road), Road 2144 in the Punchbowl area, and Road 2095A should be closed.		
<b>Response:</b> Discussions for Roads 2088, 20972, and 2144 are addressed in the wildlife response to comments specific to those roads. In the FEIS Alternative B Modified, Roads 2093 and 2095A would be open to motorized use with seasons of use. On the southwest face of the Pryors, Roads 2018, 20182, and 2011 would also have seasons of use. The seasons of use were designed to minimize road damage during spring thaw, but would also protect wildlife during the time of year when the roads are closed to motorized vehicles. The effects of all routes proposed to be designated for public motorized use, including those without a season of use such as Bear Canyon Road (#2492), are contained in the Wildlife section of Chapter 3.		
On the southwest face of the Pryors, closure or non-designation of routes 2012, 24921, 20161, 2016, 20162, 2091H4, 2091H3, 2091H, 2091H2, 2091H1, 20911, 20912, and 20913 as proposed in Alternative B Modified would increase the acreage of secure wildlife habitat compared to the current situation and the no action alternative.		

**Chapter 5: Response to Comments**

<b>Subject:</b> Wildlife		<b>Response #: WL-20, Secure Habitat - Increases</b>
<b>Letter-Comment #:</b> 396-12	Ironically, when it comes to wildlife security, many species have been increasing in population over the past several years with the current level of motorized use in place. Their habitat is not as fragile as some would have you believe because bald eagles return to our ranch yearly for as long as memory serves, unaffected by all the ranch activity in the immediate vicinity. Also grizzly bears, black bears, elk, deer, moose, and mountain lions have in recent years been much more prevalent on our valley ranch. This indicates that their existence is not severely affected by human presence. Grizzly bears are on the verge of delisting, and the recent Fish, Wildlife, and Parks Summit held in Bozeman concluded that Elk were overpopulated Statewide all once again attained with the current level of motorized use in the forest.	
<p><b>Response:</b> It is recognized that the population of some species has increased over the past few years. Increases of some species such as grizzly bears, bald eagles, and elk can be attributed largely to conservation efforts undertaken by federal, state, and private entities. Given that, there remains a need to provide secure habitat as directed by documents including the Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area (Interagency Conservation Strategy Team, March 2007), the Greater Yellowstone Area National Forests Grizzly Bear Amendment (August 2007), and the Montana Final Elk Management Plan (Montana Fish, Wildlife and Parks, January 2005). In addition, numerous studies have analyzed effects of human presence on wildlife. Discussions and literature citations regarding effects of various human activities on wildlife are in the FEIS, particularly in Affected Environment - Grizzly Bear, Affected Environment - Elk, and Affected Environment - General Wildlife. Additional information is in the wildlife report in the project file.</p>		

<b>Subject:</b> Wildlife		<b>Response #: WL-21, Big Game - Elk and Big Horn Sheep</b>
<b>Letter-Comment #:</b> 124-21	Although there are no elk in the Pryors proper (although there are elk in the northern part of the Pryors in the Crow reservation) we believe the travel plan does not sufficiently address the potential for elk to populate the rest of the Pryors. For that to happen, sufficient areas of habitat such as calving grounds need to be designated and any motorized travel eliminated. Alternative C would be much more favorable to elk propagation.	
165-2	As for wildlife, it would be an excellent idea to establish quiet zones to encourage growth of the elk and big horn sheep populations in the Pryors.	
<p><b>Response:</b> Motorized travel as shown in Alternative B Modified would not preclude elk from repopulating the Pryors, nor would it preclude expansion of the big horn sheep population. Seasonal closures designed to minimize road damage during spring thaw would also protect elk during calving season. Seasonal closures for elk protection on the Beartooth Mountains portion of the District extend until April 15 or May 15, depending on the location. Seasonal closures in the Pryors would extend until May 22 or June 15, depending on the location, and thus would provide protection during calving season should elk reoccupy the Forest Service portion of the Pryors in the future.</p> <p>The big horn sheep population in the Pryors has increased since 2003.</p>		

<b>Subject:</b> Wildlife		<b>Response #: WL-22, Big Game – Elk and Deer</b>
<b>Letter-Comment #:</b> 288-6	The Forest's Preferred Alternative B is not the best for wildlife. In the DEIS white-tailed deer and mule deer are identified as "habitat indicator species", and "key species". However they are not analyzed because the Forest says the "analysis for elk serves as a surrogate for white-tailed deer", and "impacts are expected to be similar for" elk and mule deer. (DEIS pages 3-15, 153). But there are no elk in the Pryors, although there were historically and should reintroduction occur habitat should be set aside and managed for elk. The FS concluding that Alt c would provide the lowest road density in both Units thus elk security would be highest is further evidence for adopting Alt. C.	
307-25	As it now stands there are inadequate roadless areas to provide needed protection for deer and potentially elk.	
487-3	The Forest Service has a direct and specific duty to protect and maintain the land for viable populations of elk and deer in their habitat in the Pryors. This responsibility trumps the recreation desires of any particular group of recreationists who may wish to use a road or trail or any decision to add impacting roads or trails to the permanent National Forest road system.	
<p><b>Response:</b> The standard method for analyzing potential impacts to deer is to use elk as a surrogate. Elk, and thus deer, were analyzed for the Pryors as discussed in the FEIS Affected Environment – Management Indicator Species: Elk.</p>		

<b>Subject:</b> Wildlife	<b>Response #:</b> WL-22, Big Game – Elk and Deer
The afore-mentioned section in the FEIS describes why the elk analysis also serves as analysis for mule deer and white-tailed deer. It is recognized that Alternative C would provide the lowest road density relative to elk and deer habitat. However, FEIS Alternative B Modified would not result in unacceptable resource trade-offs, while providing reasonable motorized opportunities.	

<b>Subject:</b> Wildlife	<b>Response #:</b> WL-23, Wildlife Habitat-General
<b>Letter-Comment #:</b> 254-2	In creating a travel plan for this unique wilderness I urge you to adopt Alternative C. This is not to prevent people from enjoying the Pryor Mountains, but to reduce our impact on the wildlife and their habitat. The sub-alpine meadows are especially sensitive to off-road use and as roads become wet and muddy, they are widened by people going off-road in order to pass.
254-3	As the agency in charge of our National Forests you are to protect their biodiversity while allowing for multiple use. If we allow unregulated vehicle use in the Pryors than we are allowing for only one use: the noise, pollution and destruction of valuable habitat will ruin the area for others, not to mention the animals and plants who have no where else to go. Quiet use is critical in maintaining this wilderness for all to benefit and enjoy.
<b>Response:</b> Unregulated, cross-country vehicle use would not be authorized in the Pryors. Vehicle use would be regulated through designation of routes where motorized vehicle use would be allowed, non-designation of other routes where motorized vehicle use would not be allowed, and seasons of use on specific routes to minimize road damage during spring thaw. These measures would minimize damage to habitat, including sub-alpine meadows, and other resources while allowing for multiple use of the National Forest.	

<b>Subject:</b> Wildlife	<b>Response #:</b> WL-24, Analysis – Motorized Trails
<b>Letter-Comment #:</b> 66-97	The road density evaluations must also consider the viable alternative of closing a reasonable number of routes during hunting season and other critical seasons and then opening them during the summer recreation season. This strategy would effectively address road density criteria without nearly as many motorized closures as proposed.
307-7	Conversion of Roads and Trails...If it means taking those tours out of the road density statistics for wildlife analysis, then they should remain "roads".
<b>Response:</b> Motorized trails were included with roads in the road density analysis for lynx, wolves, grizzly bear, wolverine, elk, bighorn sheep, and general wildlife-indirect effects. Road density was not used as a criterion for determining if individual routes should be designated or not. More detail on analysis methods is in the project file.	

<b>Subject:</b> Wildlife	<b>Response #:</b> WL-25, Analysis - Data
<b>Letter-Comment #:</b> 387-6	Wildlife studies from the past are full of possible scenarios that at the time were all that a biologist had to predict the possible impact of multiple uses on wildlife. The last few years have brought us actual true data that must be used by the Forest Service and the old antiquated predictions must be discarded. If the "Best Available Science" is not used in formulating the travel plan document your conclusions will be arbitrary and capricious.
<b>Response:</b> The most recent data available during analysis was used to address potential impacts to wildlife. Descriptions of methods used are present in the project file.	

<b>Subject:</b> Wildlife	<b>Response #:</b> WL-26, Analysis – Road Density
<b>Letter-Comment #:</b> 66-98	The Forest Service should discard the original “road density guidelines” and develop new guidelines that reflect the habitat most critical for bears as one that is timber harvested and roaded. Old outdated science formulated by assumptions should not be used when true science and actual data is now available.
387-9	Because of the true science that has been gathered by this study on the bears in the Swan valley, I request that the Forest Service discard the original "road density guidelines" and initiate new guidelines that reflect the habitat most critical for bears as one that is timber harvested and roaded. Old outdated science formulated by mere predictions and assumptions must not be used when true science and actual data is available.
<b>Response:</b> The guidelines used for the project grizzly bear analysis were based on percent secure habitat as described further in the FEIS Affected Environment – Grizzly Bear. Direction for the Forest Service to use secure habitat standards is contained in the Forest Plan Amendment for Grizzly Bear Habitat Conservation for the Greater	

**Chapter 5: Response to Comments**

<b>Subject:</b> Wildlife	<b>Response #: WL-26, Analysis – Road Density</b>
Yellowstone Area National Forests (USDA Forest Service, April 2006) and the Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area (Interagency Conservation Strategy Team, 2007).	

<b>Subject:</b> Wildlife	<b>Response #: WL-27, Noise - Motorcycles</b>
<b>Letter-Comment #:</b> 396-11	Like most other motorcycle riders in the forest, I ride a 4-stroke machine that is relatively quiet. I would much rather see a decibel level restriction implemented in certain areas than to have these areas closed completely. This would easily be accomplished by eliminating the noisy 2-stroke machines from certain areas. I have encountered all forms of big game many times, and they have usually simply watched me ride past them. On the other hand, there have been studies that indicate that big game is startled much quicker by a hiker or a horse than a motorized machine because of the element of surprise.
<b>Response:</b> The Custer Forest Plan standards for management of wildlife include “where necessary to protect wildlife values, access and/or traffic will be restricted in key wildlife habitats during critical periods (Custer National Forest Management Plan, p. 18.). Instituting decibel level restrictions in lieu of closures would not meet the intent of this management standard. Also, it is recognized that non-motorized use can affect wildlife, including big game, and in some cases can be more disruptive to wildlife than some types of motorized use. However, the majority of research and literature regarding the effects of human use on wildlife supports the conclusion that motorized use has greater impacts due to the distance that noise can travel, and because motorized users can travel further faster, resulting in disturbance impacts over a much greater area and thus affecting a larger number of individual animals.	

<b>Subject:</b> Wildlife	<b>Response #: WL-28, Noise Levels</b>
<b>Letter-Comment #:</b> 425-23	This document (DEIS) we believe does not adequately define a range of noise, in decibels, for all motorized vehicles using authorized and unauthorized Forest Roads. Nor does this document provide adequate acceptable decibel ratings for all motorized vehicles to prevent any adverse reaction to wildlife - particularly as related to birds, migratory and others, causing, as stated, "panic flight"; damage to eggs"; and "aggressive attacks" etc.
<b>Response:</b> A discussion of decibel levels of motorized vehicles is included in the FEIS Affected Environment – General Wildlife- Habitat Modification/Changes to Behavior - Motorized. Response of wildlife in general to noise is also discussed in this FEIS section. Response of songbirds to specific noise levels is in the FEIS Affected Environment – Migratory Birds – Disturbance. Apparent effects of specific noise levels are quite variable depending on species, vegetation, terrain and other factors. Thus, specifying acceptable decibel ratings relative to wildlife during the project planning process is not practical. However, the Montana sound law (MCA 61-9-418) requires a 96 decibel sound limit maximum for motorcycles and ATVs operated off-highway on public lands.	

<b>Subject:</b> Wildlife	<b>Response #: WL-29, Elk</b>
<b>Letter-Comment #:</b> 387-34	With regards to the Elk studies that your district is using in the Travel Management Plan, the first study you refer to was done by Canfield 1999. Ms. Canfield is a board member of the Wildlife Society and we believe the information she has contributed to your decision is bias in nature. Today Elk populations are over target numbers in 64% of the 44 Elk Management Units in Montana yet you close areas for Elk security. Quentin Kujala, FWP Wildlife Management Bureau Chief, stated on December 8th, 2007 at the Elk Summit in Bozeman, "Motorized access is important for hunter access and the control of elk population". CBU requests that you address the ability to control the population of elk in your forest through hunting by increasing access by motorized vehicles.
<b>Response:</b> Many other references in addition to Canfield (1999) were used in the project elk analysis (see FEIS Affected Environment – Management Indicator Species: Elk). Regardless of how elk populations compare with target numbers, the Custer Forest Plan standards for management of wildlife include “where necessary to protect wildlife values, access and/or traffic will be restricted in key wildlife habitats during critical periods (Custer National Forest Management Plan, p. 18.) In addition, management of elk populations is under the jurisdiction of Montana Fish, Wildlife and Parks, not the Forest Service.	

<b>Subject: Wildlife</b>		<b>Response #: WL-30, Breeding Season</b>
<b>Letter-Comment #:</b> 413-3	...- in the breeding season the big majority of birds are dependent upon riparian and wetland areas. These are critical. This the season critical not only for bird, but for other wildlife. I really did not notice any recognition of this in Section 3.1.2 (Issue #8: Wildlife and Habitat, page 3-148 and following pages.	
<b>Response:</b> Recognition of breeding season for birds is included in the Affected Environment – Migratory Birds – Habitat Alteration section of the wildlife report in the project file. For other wildlife, breeding season is recognized as follows: 1) Gray Wolf (in terms of den and rendezvous sites): FEIS Environmental Consequences – Threatened and Endangered Species: Gray Wolf – Direct and Indirect Effects – Effects Common to All Alternatives; 2) Wolverine (in terms of den sites): FEIS Affected Environment – Sensitive Species: Wolverine and Environmental Consequences – Sensitive Species: Wolverine – Direct and Indirect Effects – Effects Common to All Alternatives; 3) Bats (in terms of maternity colonies and sites): FEIS Affected Environment – Sensitive Species: Bat Species and Environmental Consequences – Sensitive Species: Bat Species; 4) Bighorn sheep (in terms of lambing): FEIS Affected Environment – Management Indicator Species: Bighorn sheep; and 5) Wildlife in general (in terms of breeding areas, reproduction and rearing of young): FEIS Affected Environment – General Wildlife.		

<b>Subject: Wildlife</b>		<b>Response #: WL-31, Birds</b>
<b>Letter-Comment #:</b> 425-5	Question: why have more roads and trails as in Alternative B when roads and trails cause disturbance to birds?...We question your logic on this issue of Environmental Consequences, to Migratory Birds.	
<b>Response:</b> Alternative C would potentially have the least impact on birds, but this is not the only resource considered during route designation. The Forest Service believes that both motorized and non-motorized uses are legitimate and appropriate uses of the national forests. The travel planning process was designed to analyze the effects of various modes of travel, compare the relative merits and trade-offs of reasonable alternatives, and ultimately determine where opportunities for those uses could be provided. The Record of Decision documents the Forest Supervisor’s conclusions regarding the issues and the rationale for making his choice of a Beartooth Travel Management alternative.		

<b>Subject: Wildlife</b>		<b>Response #: WL-32, Analysis - Maps</b>
<b>Letter-Comment #:</b> 467-26	A map disclosing the spatial extent of the route system relative to wildlife habitat would be extremely helpful and seems a logical component of the Forest Service’s hard look duty, providing both the Forest Service and the public with the ability to identify problematic routes relative to wildlife populations and habitats	
<b>Response:</b> Due to the number of wildlife species present on the District, it is not practical or possible to provide maps of habitat for all species. However, maps showing routes relative to habitat for elk, big horn sheep, wolverine, and grizzly bear are in the project file.		

<b>Subject: Wildlife</b>		<b>Response #: WL-33, Lynx Analysis Units</b>
<b>Letter-Comment #:</b> 461-67	The Canada Lynx section was one of the few actually separated into units, but these were based on the Lynx Conservation Assessment and Strategy, not the Pryor or Beartooth unit as elsewhere in the DEIS. However, the Pryor Mountain Lynx Analysis Unit (LAU) only represents a small portion of the area evaluated, which includes three larger LAUs in the Beartooths. This average road density data based on LAUs is not valid for the Pryor LAU, where the road density is much larger (0.6 mi/sq mi in No Action).	
<b>Response:</b> The Lynx Conservation Assessment and Strategy (Ruediger, Bill, et al. August 2000) and the Northern Rockies Lynx Management Direction Record of Decision (USDA Forest Service, March 2007) direct the Forest Service to conduct analysis based on Lynx Analysis Units. Lynx analysis for this project was conducted based on that direction as described in the FEIS Affected Environment – Threatened and Endangered Species: Canada Lynx.		

<b>Subject: Wildlife</b>		<b>Response #: WL-34, Lynx Direction</b>
<b>Letter-Comment #:</b> 411-49	A record of decision for the long awaited “Northern Rockies Lynx Management Direction” FEIS was finally signed on March 23, 2007. While the PNF is not within the project area, this document comprises the best available information for management of lynx and should be considered in development of this travel plan, even if it requires a modification of the Forest	

**Chapter 5: Response to Comments**

<b>Subject: Wildlife</b>		<b>Response #: WL-34, Lynx Direction</b>
	Plan.	
467-22	For lynx, it appears that the DEIS conflates compliance with the LCAS programmatic guideline for backcountry routes with no impacts. See DEIS at 3-156.	
<p><b>Response:</b> The lynx analysis was based on direction provided in the Northern Rockies Lynx Management Direction Record of Decision (USDA Forest Service, March 2007) and the Lynx Conservation Assessment and Strategy (LCAS) (Ruediger, Bill, et al. August 2000). Guidelines in the LCAS are based on road density by lynx analysis unit. Comparison of road densities in the FEIS Affected Environment – Canada Lynx and the LCAS programmatic planning guidelines show that all alternatives meet the guidelines.</p>		

<b>Subject: Wildlife</b>		<b>Response #: WL-35, Baseline Condition</b>
<b>Letter-Comment #:</b>		
467-21	The "existing baseline condition" has already caused an existing baseline impact to wildlife that must be disclosed and accounted for. This is particularly important given the number of non-system routes disclosed in Appendix C that have never been properly addressed through NEPA. From our review the impact analysis provides a textbook example of agencies improperly using a shifting baseline to accommodate additional use and degradation.	
467-23	There is also no discussion concerning how the existing baseline condition is affecting lynx or how that baseline has shifted since the 1987 Travel Plan. With lynx, an ESA-listed species, as with other protected species, the status quo is patently unacceptable and the Forest Service has an obligation to not simply acquiesce to the status quo but to actually conserve the species and make every effort to restore habitat - in particular given the absence of adequate Forest Plan guidance for lynx conservation.	
<p><b>Response:</b> The Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area, Interagency Conservation Strategy Team, March 2007; and the Greater Yellowstone Area National Forests Grizzly Bear Amendment, August 2007 provide direction regarding the appropriate baseline to use for grizzly bear analysis.</p> <p>Guidance for lynx conservation is contained in the Northern Rockies Lynx Management Direction Record of Decision (LMD) (USDA Forest Service, March 2007) and the Lynx Conservation Assessment and Strategy (LCAS) (Ruediger, Bill, et al. August 2000). The LMD does not specifically discuss baseline condition. However, it alludes to it by requiring monitoring of snow-compacting activities compared to the period 1998 to 2000. This does not apply to the Beartooth Travel Management because over-snow activities are not part of the District's current travel planning process. The FEIS Alternative A includes all motorized routes identified in the 1999-2000 inventory, including non-system routes, except for those that would not be designated for public use under any action alternative. Thus, Alternative A can be considered the baseline condition.</p>		

<b>Subject: Wildlife</b>		<b>Response #: WL-36, Lynx Designation Criteria</b>
<b>Letter-Comment #:</b>		
467-24	Even without these flaws, the ultimate determination for lynx - that "[a]ll alternatives are consistent with the laws, regulations, policy, and Federal, Regional, and State direction, the Custer National Forest Management Plan, and the Northern Rockies Lynx Management Direction" - is conclusory, does not satisfy Executive Order 11644's designation criteria, and is unsupported by the DEIS' analysis of impacts. DEIS at 3-157.	
467-27	Moreover, it would be helpful to identify opportunities to affirmatively restore habitat. For example, the Forest Service did, on its website, provide a map containing potential lynx habitat. The logical next step would be to take that map, overlay each alternative, and also consciously identify opportunities where the elimination of a route or routes through decommissioning or obliteration would enhance the potential habitat. The DEIS' general maps of route locations, because they only include the routes themselves and administrative boundaries, gives a skewed view of the land. Preparing a spatial map containing route locations and habitat locations - as well as the location of other important resources, such as water - would also assist the Forest Service in identifying quiet use recreation enclaves or other areas wherein motorized use should be prohibited.	
<p><b>Response:</b> Designation criteria relative to lynx is not specified in the Executive Order. However, applicability to lynx can be inferred in Sec. 3 (1) and (2), and Sec. 9 (a). The Beartooth Travel Management plan satisfies Sec. 3 (1) and (2), which apply to location of areas and trails, because: a) areas are not being designated, and b) routes proposed to be converted to motorized trails already exist on the ground, thus they are already located.</p>		

<b>Subject:</b> Wildlife	<b>Response #:</b> WL-36, Lynx Designation Criteria
Relative to Sec. 9, analysis of affects to lynx was conducted based on the direction developed to reduce or eliminate adverse effects of land management activities on lynx in accordance with the Northern Rockies Lynx Management Direction Record of Decision (LMD) (USDA Forest Service, March 2007) and the Lynx Conservation Assessment and Strategy (LCAS) (Ruediger, Bill, et al. August 2000).	

<b>Subject:</b> Wildlife	<b>Response #:</b> WL-37, General
<b>Letter-Comment #:</b> 406-4	Wildlife is and always will be one of the forest resources; however, especially in the Pryors, wildlife seems to have lost the status of resource. Please take a fresh look at the effect motorized use has had on the wildlife resource.
<b>Response:</b> The effects of roads and motorized use on wildlife were analyzed in detail for specific species and for wildlife in general. Detailed information is available in the FEIS Wildlife and Habitat, and in the project file.	

<b>Subject:</b> Wildlife	<b>Response #:</b> WL-38, Birds - Monitoring
<b>Letter-Comment #:</b> 425-6	In the event if Alternative B becomes the Preferred Alternative for this section of the Custer Forest Travel Plan, YVAS must insist that in the final Record of Decision, relative sections of Alternative C concerning migratory birds need to be incorporated into the Preferred Alternative and that a monitoring plan must be established to show without reasonable doubt that impacts are not occurring.
<b>Response:</b> The migratory birds section of the DEIS was reviewed, but the “relative sections” the commenter was referring to could not be determined and therefore it could not be addressed. It is recognized that Alternative C may potentially have the least impact on migratory birds, but this is not the only resource considered during the travel planning process. The Forest Service feels that the FEIS Alternative B Modified would not result in unacceptable resource trade-offs. Compliance monitoring has been incorporated as a part of all alternatives. Although compliance monitoring doesn’t specifically address migratory birds, public compliance with the Beartooth Travel Management plan would help minimize potential adverse impacts to birds.	

<b>Subject:</b> Wildlife	<b>Response #:</b> WL-39, Analysis – District Level
<b>Letter-Comment #:</b> 461-66	Just as in the Vegetation section, the DEIS lumped the whole district together in analyzing potential impacts to wildlife. For reasons explained above, this does not meet NEPA’s hard look requirement. In addition, the fact that the bighorn sheep and elk analysis were broken into different units demonstrates that the decision not to do the same for other specific species was arbitrary and capricious. Because the district was not consistently separated into units, it is difficult to adequately comment on the alternatives.
<b>Response:</b> Analysis for the lynx was based on the Canada Lynx Conservation Assessment and Strategy (Ruediger, Bill, et al. August 2000) and the Northern Rockies Lynx Management Direction Record of Decision (USDA Forest Service, March 2007), which direct the Forest Service to conduct analysis based on Lynx Analysis Units. Analysis for grizzly bear was based on the Forest Plan Amendment for Grizzly Bear Habitat Conservation for the Greater Yellowstone Area National Forests (USDA Forest Service, April 2006) and the Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area (Interagency Conservation Strategy Team, March 2007), which direct the Forest Service to conduct analysis based on grizzly bear subunits. The other species and species groups were analyzed separately for the Beartooth and Pryors Units in the FEIS. The exception is Migratory Birds, which were lumped because no analysis standards or guidelines are available for this wildlife group.	

<b>Subject:</b> Wildlife	<b>Response #:</b> WL-40, Analysis – New Information
<b>Letter-Comment #:</b> 66-96	Wildlife security criteria and standards in the forest plan are out of date. The science, data and findings as far as road density and impact of motorized vehicles on wildlife have changed significantly. This new information must be considered in this evaluation.
<b>Response:</b> Changes to Forest Plan criteria and standards are part of the Forest Plan revision process and are beyond the scope of this project. The most up-to-date information available was included in wildlife analyses. Citations are included throughout Chapter 3: Wildlife and Habitat and in Chapter 4: References - Wildlife of the FEIS.	

## OPPORTUNITIES

<i>Subject: Opportunity</i>	<i>Response #: O-1</i>
<u><i>Letter-Comment #:</i></u> 44-1	There is a conflict of interests - mixed groups - using the West Fork Silver Run Trails, there are hikers, horseback riders and bikers. For public safety the trail should be one way only.
66-135	We request that the ties to the land that are part of our local western culture and heritage be protected and that the preferred travel management alternative include opportunities to visit these features as part of motorized interpretative spur destinations and loops.
68-11	The only place on the section of Pryor Mountain Road from the junction with Crooked Creek Road and Dryhead Vista that becomes slick is at the Red Mud Catchment where there is a layer of the Amsden red clay. That section could be greatly improved by diverting the overflow from the catchment to flow through the culvert and not down the road. As it is now, vehicles slide there but never become stuck.
68-16	If the PMWHR northwest fence is ever rebuilt, 2009 at the earliest, road equipment will have to be brought in to construct an effective gate for vehicles. That would be an opportunity to improve the road immediately northwest of the fence by ditching and building up the roadbed.
68-21	The road leaving the junction with 2092 goes into the Commissary Creek drainage. The initial section is through clayey soil that is very slick when wet. Commissary Creek pools before it flows over the road. There is no culvert to protect either road or stream.
68-22	Less than a half-mile is a wooden cattleguard which is rotting. Soon it will be difficult for a wheeled vehicle to pass that point unless the Forest Service fills the ditch under the guard. Perhaps there are plans to replace the wooden cattleguard with a metal one.
68-25	The roads 2492 and 2814 become hellacious in the northern half of section 74 and the southern half of sections 28 and 27 in T 8S R 26E... There are places where the roads are steep and the drainage is directly down the road. Any soil and gravel has been washed out.
68-27	The section of 2850, Stockman Trail, between the junctions with 28507 and 28505 is one of the worst braided roads in the Pryors... The multiple parallel roads are subject to erosion even though they are on contour. Seasonal closure is not a solution to healing this quagmire. I recommend that this section be permanently closed.
299-3	The Billings Motorcycle Club would offer to adopt Trails 22 and 27 under the Adopt a Trail Program if they were allowed to remain open for motorcycle usage. We have an established record of working in concert with the Forest Service and Bureau of Land Management to preserve and maintain trails in a variety of other areas in the state of Montana. We are willing to provide the manpower to maintain these trails under the direction of you and your staff.
345-8	Create additional agency eyes and ears through a volunteer corps drawn from those participants in public meetings who have shown their commitment to the Pryors transcends issues of personal use. The volunteers could help post and maintain the "open" signs. Implement a no-nonsense campaign (through media, signs on the ground, volunteer corps) broadcasting the agency's intention to enforce the above.
421-16	The Horse backers need areas they can go to for easy day rides. So we need to have an area where we can control the weeds and have an easy trail. We believe that we can have this work in the Pryor's and also off of Meyer's Creek. The horse backers can work with the hiking community and CPA to make these trail systems easy for all to enjoy off of Crooked Creek Road and from the camp grounds. There could be a designating staging area for the horse backers down wind from the campground and there is another area that is north east that could be used.
421-20	The area off of Sage Creek Campground should have a trail system for non-motorized users. This area is up against the rims or south to the bluffs. Cliffs on, south of the main road. This is the only campground in the Pryors. We need a trail system to connect to the south side of the Pryor's. This is why we need to consider connecting trails off the main roads to the south side for non-licensed drivers to ride with their families under the 2005 Travel Rules.
421-38	Ben Bow Trail area is an ideal spot for camping and is gaining in popularity. An area should be allowed toward the mine for rough camping with parking access and should also remain open for all forms of multiple-use activity. A play area should be created in the center, and more looping trails should be created. Based on the 2005 Travel management Plan. Two new

<b>Subject:</b> Opportunity	<b>Response #:</b> O-1
	multiple-use trails should be built using grant money and volunteer work. 1A along the Nye Road should circle back to 2A and connect to the Switchbacks. Open riding areas should be open near the golf course. This area needs to connect back to the East/West rosebud area and Red Lodge. Under the 2005 Travel Manage Plan the forest Service should be looking for a way to connect to the communities and connect to areas together. Also, the Forest Service did not comment on the rock area that is open and is being used now. Just past the church turn off about 1 1/2 mile on the left side of the road. There is about 20 acres of rock and used for 4x4 rock crawling experiences. This is a rock pile and should be considered in the preferred Alt. B.
421-40	This is the area [Map 4, Area 1] near the ski hill and going toward the Paradise CampGround. This area is generally reserved for non-motorized use, but the three main roads should remain open as they are. More hiking opportunities should be created with the groups to allow for the development of a better trail systems map. During summertime use, the area off of private property should connect Area 1 to Area 5 with the use of an under 50" trail for all multiple uses that qualify under that heading. Eventually, Area 5 should be connected to East Rosebud. All spur roads should remain open for disperse camping.
421-47	Also need to create a loop in the middle of the Ben Bow trail to connect to the road. Also need to make the Ben Bow a day use for family that bring the non-licensed driver to ride, we can use the side of the road for and great a trail system connecting the trails together. We need to be able to connect the Ben Bow area to the Iron Mountain or Picket Pen to make routes!
461-33	We feel that in order for the Custer NF to ensure meeting the Executive Order mandate to minimize damage to soils, it should provide a plan and implementation schedule for removing any non-system routes after the release of the Beartooth District MVUM. Without such a plan the Custer NF's environmental analysis of soils in the planning area would be inaccurate since these non-system routes were not included in the current cumulative impacts analysis.
496-2	I am a member of the Billings Motorcycle Club, and we as a club will offer to adopt Trails 22 and 27 under the Adopt a Trail Program if they were allowed to remain open for motorcycle usage.
<b>Response:</b> The opportunities identified from your comments are outlined in Appendix E. They may be addressed as funding becomes available. We look forward to working with you.	

**- End of Chapter 5 -**

# Appendix A: 2005 Motorized Travel Rule

36 CFR Parts 212, 251, 261, and 295 Travel Management; Designated Routes and Areas for Motor Vehicle Use; Final Rule:

## 4. Text of the Final Rule

### List of Subjects

*36 CFR Part 212:* Highways and roads, National Forests, Public lands—rights-of-way, and Transportation.

*36 CFR Part 251:* Administrative practice and procedure, Electric power, National Forests, Public lands rights-of-way, Reporting and recordkeeping requirements, Water resources.

*36 CFR Part 261:* Law enforcement, National Forests.

*36 CFR Part 295:* National Forests, Traffic regulations.

Therefore, for the reasons set out in the preamble, amend part 212, subpart B of part 251, and subpart A of part 261, and remove part 295 of title 36 of the Code of Federal Regulations as follows:

## PART 212—TRAVEL MANAGEMENT

1. Amend part 212 by revising the part heading to read as set forth above.
  - 1a. Remove the authority citation for part 212.
2. Designate §§ 212.1 through 212.21 as subpart A to read as set forth below:

### Subpart A—Administration of the Forest Transportation System

- 2a. Add an authority citation for new subpart A to read as set forth below:

**Authority:** 16 U.S.C. 551, 23 U.S.C. 205.

3. Amend § 212.1 as follows:

- a. In alphabetical order, add the following definitions: administrative unit; area; designated road, trail, or area; forest road or trail; forest transportation system; motor vehicle; motor vehicle use map; National Forest System road; National Forest System trail; off-highway vehicle; over-snow vehicle; road construction or reconstruction; temporary road or trail; trail; travel management atlas; and unauthorized road or trail; and
- b. Revise the definitions for forest transportation atlas, forest transportation facility, and road; and
- c. Remove the definitions for classified road, new road construction, road reconstruction, temporary road, and unclassified road.

### § 212.1 Definitions.

**Administrative unit.** A National Forest, a National Grassland, a purchase unit, a land utilization project, Columbia River Gorge National Scenic Area, Land Between the Lakes, Lake Tahoe Basin Management Unit, Midewin National Tallgrass Prairie, or other comparable unit of the National Forest System.

**Area.** A discrete, specifically delineated space that is smaller, and in most cases much smaller, than a Ranger District.

## Appendix A: 2005 Motorized Travel Rule

**Designated road, trail, or area.** A National Forest System road, a National Forest System trail, or an area on National Forest System lands that is designated for motor vehicle use pursuant to § 212.51 on a motor vehicle use map.

**Forest road or trail.** A road or trail wholly or partly within or adjacent to and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources.

**Forest transportation atlas.** A display of the system of roads, trails, and airfields of an administrative unit.

**Forest transportation facility.** A forest road or trail or an airfield that is displayed in a forest transportation atlas, including bridges, culverts, parking lots, marine access facilities, safety devices, and other improvements appurtenant to the forest transportation system.

**Forest transportation system.** The system of National Forest System roads, National Forest System trails, and airfields on National Forest System lands.

**Motor vehicle.** Any vehicle which is self-propelled, other than:

- (1) A vehicle operated on rails; and
- (2) Any wheelchair or mobility device, including one that is battery-powered, that is designed solely for use by a mobility-impaired person for locomotion, and that is suitable for use in an indoor pedestrian area.

**Motor vehicle use map.** A map reflecting designated roads, trails, and areas on an administrative unit or a Ranger District of the National Forest System.

**National Forest System road.** A forest road other than a road which has been authorized by a legally documented right-of-way held by a State, county, or other local public road authority.

**National Forest System trail.** A forest trail other than a trail which has been authorized by a legally documented right-of-way held by a State, county, or other local public road authority.

**Off-highway vehicle.** Any motor vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain.

**Over-snow vehicle.** A motor vehicle that is designed for use over snow and that runs on a track or tracks and/or a ski or skis, while in use over snow.

**Road.** A motor vehicle route over 50 inches wide, unless identified and managed as a trail.

**Road construction or reconstruction.** Supervising, inspecting, actual building, and incurrence of all costs incidental to the construction or reconstruction of a road.

**Temporary road or trail.** A road or trail necessary for emergency operations or authorized by contract, permit, lease, or other written authorization that is not a forest road or trail and that is not included in a forest transportation atlas.

**Trail.** A route 50 inches or less in width or a route over 50 inches wide that is identified and managed as a trail.

**Travel management atlas.** An atlas that consists of a forest transportation atlas and a motor vehicle use map or maps.

**Unauthorized road or trail.** A road or trail that is not a forest road or trail or a temporary road or trail and that is not included in a forest transportation atlas.

4. Amend § 212.2 by redesignating paragraphs (b) as (d), revising paragraph (a), and adding new paragraphs (b) and (c) to read as follows:

### § 212.2 Forest transportation program.

(a) **Travel management atlas.** For each administrative unit of the National Forest System, the responsible official must develop and maintain a travel management atlas, which is to be available to the public at the headquarters of that administrative unit.

**(b) *Forest transportation atlas.*** A forest transportation atlas may be updated to reflect new information on the existence and condition of roads, trails, and airfields of the administrative unit. A forest transportation atlas does not contain inventories of temporary roads, which are tracked by the project or activity authorizing the temporary road. The content and maintenance requirements for a forest transportation atlas are identified in the Forest Service directives system.

**(c) *Program of work for the forest transportation system.*** A program of work for the forest transportation system shall be developed each fiscal year in accordance with procedures prescribed by the Chief.

5. Amend § 212.5 as follows:

- a. Revise paragraphs (a)(1) and (a)(2)(ii);
- b. Revise the heading for paragraph (c) introductory text to read as set forth below:
- c. Revise the heading for paragraph (d) introductory text to read as set forth below:

**§ 212.5 Road system management.**

**(a) *Traffic rules.***

**(1) *General.*** Traffic on roads is subject to State traffic laws where applicable except when in conflict with designations established under subpart B of this part or with the rules at 36 CFR part 261.

**(2) *Specific.***

(ii) Roads, or segments thereof, may be restricted to use by certain classes of vehicles or types of traffic as provided in 36 CFR part 261. Classes of vehicles may include but are not limited to distinguishable groupings such as passenger cars, buses, trucks, motorcycles, all-terrain vehicles, 4-wheel drive vehicles, off-highway vehicles, and trailers. Types of traffic may include but are not limited to groupings such as commercial hauling, recreation, and administrative.

**(c) *Cost recovery on National Forest System roads.***

**(d) *Maintenance and reconstruction of National Forest System roads by users.***

6. Amend § 212.7 by revising the paragraph heading and text of paragraph

(a) to read as follows:

**§ 212.7 Access procurement by the United States.**

**(a) *Existing or proposed forest roads that are or will be part of a transportation system of a State, county, or other local public road authority.***

Forest roads that are or will be part of a transportation system of a State, county, or other local public road authority and are on rights-of-way held by a State, county, or other local public road authority may be constructed, reconstructed, improved, or maintained by the Forest Service when there is an appropriate agreement with the State, county, or other local public road authority under 23 U.S.C. 205 and the construction, reconstruction, improvement, or maintenance is essential to provide safe and economical access to National Forest System lands.

7. Amend § 212.10 by revising paragraph (d) to read as follows:

**§ 212.10 Maximum economy National Forest System roads.**

(d) By a combination of these methods, provided that where roads are to be constructed at a higher standard than the standard—consistent with applicable environmental laws and regulations—that is sufficient for harvesting and removal of National Forest timber and other products covered by a particular sale, the purchaser of the timber and other products shall not be required to bear the part of the cost necessary to meet the higher standard, and the Chief may make such arrangements to achieve this end as may be appropriate.

## Appendix A: 2005 Motorized Travel Rule

### § 212.20 [Removed and reserved]

8. Remove and reserve § 212.20.

9. Add a new subpart B to read as follows:

### Subpart B—Designation of Roads, Trails, and Areas for Motor Vehicle Use

Sec. 212.50 Purpose, scope, and definitions.

212.51 Designation of roads, trails, and areas.

212.52 Public involvement.

212.53 Coordination with Federal, State, county, and other local governmental entities and tribal governments.

212.54 Revision of designations.

212.55 Criteria for designation of roads, trails, and areas.

212.56 Identification of designated roads, trails, and areas.

212.57 Monitoring of effects of motor vehicle use on designated roads and trails and in designated areas.

**Authority:** 7 U.S.C. 1011(f), 16 U.S.C. 551, E.O. 11644, 11989 (42 FR 26959).

### § 212.50 Purpose, scope, and definitions.

(a) **Purpose.** This subpart provides for a system of National Forest System roads, National Forest System trails, and areas on National Forest System lands that are designated for motor vehicle use. After these roads, trails, and areas are designated, motor vehicle use, including the class of vehicle and time of year, not in accordance with these designations is prohibited by 36 CFR 261.13. Motor vehicle use off designated roads and trails and outside designated areas is prohibited by 36 CFR 261.13.

(b) **Scope.** The responsible official may incorporate previous administrative decisions regarding travel management made under other authorities, including designations and prohibitions of motor vehicle use, in designating National Forest System roads, National Forest System trails, and areas on National Forest System lands for motor vehicle use under this subpart.

(c) For definitions of terms used in this subpart, refer to § 212.1 in subpart A of this part.

### § 212.51 Designation of roads, trails, and areas.

(a) **General.** Motor vehicle use on National Forest System roads, on National Forest System trails, and in areas on National Forest System lands shall be designated by vehicle class and, if appropriate, by time of year by the responsible official on administrative units or Ranger Districts of the National Forest System, provided that the following vehicles and uses are exempted from these designations:

- (1) Aircraft;
- (2) Watercraft;
- (3) Over-snow vehicles (see § 212.81);
- (4) Limited administrative use by the Forest Service;
- (5) Use of any fire, military, emergency, or law enforcement vehicle for emergency purposes;
- (6) Authorized use of any combat or combat support vehicle for national defense purposes;
- (7) Law enforcement response to violations of law, including pursuit; and
- (8) Motor vehicle use that is specifically authorized under a written authorization issued under Federal law or regulations.

(b) **Motor vehicle use for dispersed camping or big game retrieval.** In designating routes, the responsible official may include in the designation the limited use of motor vehicles within a specified distance of certain designated routes, and if appropriate within specified time periods, solely for the

purposes of dispersed camping or retrieval of a downed big game animal by an individual who has legally taken that animal.

**§ 212.52 Public involvement.**

*(a) General.* The public shall be allowed to participate in the designation of National Forest System roads, National Forest System trails, and areas on National Forest System lands and revising those designations pursuant to this subpart. Advance notice shall be given to allow for public comment, consistent with agency procedures under the National Environmental Policy Act, on proposed designations and revisions. Public notice with no further public involvement is sufficient if a National Forest or Ranger District has made previous administrative decisions, under other authorities and including public involvement, which restrict motor vehicle use over the entire National Forest or Ranger District to designated routes and areas, and no change is proposed to these previous decisions and designations.

*(b) Absence of public involvement in temporary, emergency closures.* (1) General. Nothing in this section shall alter or limit the authority to implement temporary, emergency closures pursuant to 36 CFR part 261, subpart B, without advance public notice to provide short-term resource protection or to protect public health and safety.

*(2) Temporary, emergency closures based on a determination of considerable adverse effects.* If the responsible official determines that motor vehicle use on a National Forest System road or National Forest System trail or in an area on National Forest System lands is directly causing or will directly cause considerable adverse effects on public safety or soil, vegetation, wildlife, wildlife habitat, or cultural resources associated with that road, trail, or area, the responsible official shall immediately close that road, trail, or area to motor vehicle use until the official determines that such adverse effects have been mitigated or eliminated and that measures have been implemented to prevent future recurrence. The responsible official shall provide public notice of the closure pursuant to 36 CFR 261.51, including reasons for the closure and the estimated duration of the closure, as soon as practicable following the closure.

**§ 212.53 Coordination with Federal, State, county, and other local governmental entities and tribal governments.**

The responsible official shall coordinate with appropriate Federal, State, county, and other local governmental entities and tribal governments when designating National Forest System roads, National Forest System trails, and areas on National Forest System lands pursuant to this subpart.

**§ 212.54 Revision of designations.**

Designations of National Forest System roads, National Forest System trails, and areas on National Forest System lands pursuant to § 212.51 may be revised as needed to meet changing conditions. Revisions of designations shall be made in accordance with the requirements for public involvement in § 212.52, the requirements for coordination with governmental entities in § 212.53, and the criteria in § 212.55, and shall be reflected on a motor vehicle use map pursuant to § 212.56.

**§ 212.55 Criteria for designation of roads, trails, and areas.**

*(a) General criteria for designation of National Forest System roads, National Forest System trails, and areas on National Forest System lands.* In designating National Forest System roads, National Forest System trails, and areas on National Forest System lands for motor vehicle use, the responsible official shall consider effects on National Forest System natural and cultural resources, public safety, provision of recreational opportunities, access needs, conflicts among uses of National Forest System lands, the need for maintenance and administration of roads, trails, and areas that would arise if the

## Appendix A: 2005 Motorized Travel Rule

uses under consideration are designated; and the availability of resources for that maintenance and administration.

**(b) *Specific criteria for designation of trails and areas.*** In addition to the criteria in paragraph (a) of this section, in designating National Forest System trails and areas on National Forest System lands, the responsible official shall consider effects on the following, with the objective of minimizing:

- (1) Damage to soil, watershed, vegetation, and other forest resources;
- (2) Harassment of wildlife and significant disruption of wildlife habitats;
- (3) Conflicts between motor vehicle use and existing or proposed recreational uses of National Forest System lands or neighboring Federal lands; and
- (4) Conflicts among different classes of motor vehicle uses of National Forest System lands or neighboring Federal lands.

In addition, the responsible official shall consider:

- (5) Compatibility of motor vehicle use with existing conditions in populated areas, taking into account sound, emissions, and other factors.

**(c) *Specific criteria for designation of roads.*** In addition to the criteria in paragraph (a) of this section, in designating National Forest System roads, the responsible official shall consider:

- (1) Speed, volume, composition, and distribution of traffic on roads; and
- (2) Compatibility of vehicle class with road geometry and road surfacing.

**(d) *Rights of access.*** In making designations pursuant to this subpart, the responsible official shall recognize:

- (1) Valid existing rights; and
- (2) The rights of use of National Forest System roads and National Forest System trails under § 212.6(b).

**(e) *Wilderness areas and primitive areas.*** National Forest System roads, National Forest System trails, and areas on National Forest System lands in wilderness areas or primitive areas shall not be designated for motor vehicle use pursuant to this section, unless, in the case of wilderness areas, motor vehicle use is authorized by the applicable enabling legislation for those areas.

### **§ 212.56 Identification of designated roads, trails, and areas.**

Designated roads, trails, and areas shall be identified on a motor vehicle use map. Motor vehicle use maps shall be made available to the public at the headquarters of corresponding administrative units and Ranger Districts of the National Forest System and, as soon as practicable, on the website of corresponding administrative units and Ranger Districts. The motor vehicle use maps shall specify the classes of vehicles and, if appropriate, the times of year for which use is designated.

### **§ 212.57 Monitoring of effects of motor vehicle use on designated roads and trails and in designated areas.**

For each administrative unit of the National Forest System, the responsible official shall monitor the effects of motor vehicle use on designated roads and trails and in designated areas under the jurisdiction of that responsible official, consistent with the applicable land management plan, as appropriate and feasible.

10. Add a new subpart C to read as follows:

#### **Subpart C—Use by Over-Snow Vehicles**

Sec. 212.80 Purpose, scope, and definitions.

212.81 Use by over-snow vehicles.

**Authority:** 7 U.S.C. 1011(f), 16 U.S.C. 551, E.O. 11644, 11989 (42 FR 26959).

**§ 212.80 Purpose, scope, and definitions.**

The purpose of this subpart is to provide for regulation of use by over-snow vehicles on National Forest System roads and National Forest System trails and in areas on National Forest System lands. For definitions of terms used in this subpart, refer to § 212.1 in subpart A of this part.

**§ 212.81 Use by over-snow vehicles.**

(a) **General.** Use by over-snow vehicles on National Forest System roads and National Forest System trails and in areas on National Forest System lands may be allowed, restricted, or prohibited.

(b) **Exemptions from restrictions and prohibitions.** The following uses are exempted from restrictions and prohibitions on use by over-snow vehicles:

- (1) Limited administrative use by the Forest Service;
- (2) Use of any fire, military, emergency, or law enforcement vehicle for emergency purposes;
- (3) Authorized use of any combat or combat support vehicle for national defense purposes;
- (4) Law enforcement response to violations of law, including pursuit; and
- (5) Use by over-snow vehicles that is specifically authorized under a written authorization issued under Federal law or regulations.

(c) **Establishment of restrictions and prohibitions.** If the responsible official proposes restrictions or prohibitions on use by over-snow vehicles under this subpart, the requirements governing designation of National Forest System roads, National Forest System trails, and areas on National Forest System lands in §§ 212.52, 212.53, 212.54, 212.55, 212.56, and 212.57 shall apply to establishment of those restrictions or prohibitions. In establishing restrictions or prohibitions on use by over-snow vehicles, the responsible official shall recognize the provisions concerning rights of access in sections 811(b) and 1110(a) of the Alaska National Interest Lands Conservation Act (16 U.S.C. 3121(b) and 3170(a), respectively).

**PART 251—LAND USES**

**Subpart B—Special Uses**

11. Revise the authority citation for part 251, subpart B, to read as follows:

**Authority:** 7 U.S.C. 1011(f); 16 U.S.C. 460l– 6a, 460l–6d, 472, 497b, 497c, 551, 580d, 1134, 3210; 30 U.S.C. 185; 43 U.S.C. 1740, 1761–1771.

12. Amend § 251.51 by revising the definitions for “forest road or trail” and “National Forest System road” to read as follows:

**§ 251.51 Definitions.**

**Forest road or trail.** A road or trail wholly or partly within or adjacent to and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources.

**National Forest System road.** A forest road other than a road which has been authorized by a legally documented right-of-way held by a State, county, or other local public road authority.

## PART 261—PROHIBITIONS

13. The authority citation for part 261 continues to read as follows:

**Authority:** 7 U.S.C. 1011(f); 16 U.S.C. 460l– 6d, 472, 551, 620(f), 1133(c)–(d)(1), 1246(i).

14. Amend § 261.2 to revise the definitions for “motor vehicle,” “forest road or trail,” “National Forest System road,” and “National Forest System trail,” and add definitions in alphabetical order for “administrative unit” and “area,” to read as follows:

### Subpart A—General Prohibitions

#### § 261.2 Definitions.

**Administrative unit.** A National Forest, a National Grassland, a purchase unit, a land utilization project, Columbia River Gorge National Scenic Area, Land Between the Lakes, Lake Tahoe Basin Management Unit, Midewin National Tallgrass Prairie, or other comparable unit of the National Forest System.

**Area.** A discrete, specifically delineated space that is smaller, and in most cases much smaller, than a Ranger District.

**Forest road or trail.** A road or trail wholly or partly within or adjacent to and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources.

**Motor vehicle** means any vehicle which is self-propelled, other than:

- (1) A vehicle operated on rails; and
- (2) Any wheelchair or mobility device, including one that is battery-powered, that is designed solely for use by a mobility-impaired person for locomotion and that is suitable for use in an indoor pedestrian area.

**National Forest System road.** A forest road other than a road which has been authorized by a legally documented right-of-way held by a State, county, or other local public road authority.

**National Forest System trail.** A forest trail other than a trail which has been authorized by a legally documented right-of-way held by a State, county, or other local public road authority.

#### §§ 261.13 through 261.21 [Redesignated as §§ 261.15 through 261.23]

15. Redesignate §§ 261.13 through 261.21 as §§ 261.15 through 261.23.

15a. Add new § 261.13 and § 261.14 to read as follows:

#### § 261.13 Motor vehicle use.

After National Forest System roads, National Forest System trails, and areas on National Forest System lands have been designated pursuant to 36 CFR 212.51 on an administrative unit or a Ranger District of the National Forest System, and these designations have been identified on a motor vehicle use map, it is prohibited to possess or operate a motor vehicle on National Forest System lands in that administrative unit or Ranger District other than in accordance with those designations, provided that the following vehicles and uses are exempted from this prohibition:

- (a) Aircraft;
- (b) Watercraft;
- (c) Over-snow vehicles;
- (d) Limited administrative use by the Forest Service;
- (e) Use of any fire, military, emergency, or law enforcement vehicle for emergency purposes;
- (f) Authorized use of any combat or combat support vehicle for national defense purposes;

- (g) Law enforcement response to violations of law, including pursuit;
- (h) Motor vehicle use that is specifically authorized under a written authorization issued under Federal law or regulations; and
- (i) Use of a road or trail that is authorized by a legally documented right-of-way held by a State, county, or other local public road authority.

**§ 261.14 Use by over-snow vehicles.**

It is prohibited to possess or operate an over-snow vehicle on National Forest System lands in violation of a restriction or prohibition established pursuant to 36 CFR part 212, subpart C, provided that the following uses are exempted from this section:

- (a) Limited administrative use by the Forest Service;
- (b) Use of any fire, military, emergency, or law enforcement vehicle for emergency purposes;
- (c) Authorized use of any combat or combat support vehicle for national defense purposes;
- (d) Law enforcement response to violations of law, including pursuit;
- (e) Use by over-snow vehicles that is specifically authorized under a written authorization issued under Federal law or regulations; and
- (f) Use of a road or trail that is authorized by a legally documented right-of-way held by a State, county, or other local public road authority.

16. Amend § 261.55 by revising the introductory text to read as follows

**§ 261.55 National Forest System trails.**

When provided by an order issued in accordance with § 261.50 of this subpart, the following are prohibited on a National Forest System trail:

**PART 295—USE OF MOTOR VEHICLES OFF NATIONAL FOREST SYSTEM ROADS  
[REMOVED]**

17. Remove the entire part 295.

Dated: October 19, 2005.

**Mark Rey,**

*Undersecretary of Agriculture for Natural Resources and Environment.*

[FR Doc. 05-22024 Filed 11-8-05; 8:45 am]

**BILLING CODE 3410-11-P**

**Appendix A: 2005 Motorized Travel Rule**

**- End of Appendix A -**

# Appendix B: Forest Plan Direction and Proposed Changes

## B.1 RELATIONSHIP TO FOREST PLAN

The 1986 Custer National Forest Land and Resources Management Plan (Forest Plan) directs management of all Federal lands within the Beartooth Ranger District. The Forest Plan provides both Forest-wide Management direction and direction for specific management areas. Forest Plan forest-wide goals, objectives, and standards are found in chapter II, pages 3-39. Management Area direction is found in chapter III page 41-99 of the Forest Plan. Forest Plan direction and proposed changes (by amendment) related to travel management is listed in the following Table.

**Table B.1. Forest Plan management direction related to travel management.**

Management Area	Current FP Management Direction	Proposed Changes Applicable to All Action Alternatives
<b>Forest-wide Direction</b>		
Forest-wide	The goal of providing for public access to and within the Forest is to provide at least an access point per five miles of administrative boundary where there is not adequate access from inside Nation Forest System land. However, the intent will not be to provide road/trail access to all areas on the Forest (pages 3-4).	No Change
Forest-wide	The goal of recreation management is to provide a broad spectrum of recreation experience opportunities for the benefit and enjoyment of the public, with due consideration for other forest uses and resources (page 4).	No Change
Forest-wide	The Forest transportation system required by this plan will be constructed and managed to minimize adverse impacts on the resources, while providing access to public lands for the public and for the management of the resources (page 5).	No Change
Forest-wide	Travel restrictions will be developed and maintained to meet land management objectives. These restrictions will provide reasonable access for public recreation, hunting and range maintenance/administration, but will confine motorized vehicles to specific roads, trails, or areas identified on a map. Vehicular access of these designated locations will be prohibited, except by permit. A map and information showing closures, restrictions, and opportunities on the Forest for motorized and nonmotorized use will be provided to the public (page 13).	No Change

Appendix B: Forest Plan Direction and Proposed Changes

Table B.1. Forest Plan management direction related to travel management.

Management Area		Current FP Management Direction	Proposed Changes Applicable to All Action Alternatives
Mgt. Area	Acres <sup>1</sup>	Management Direction	
B	59,175 Ac (~10%)	<p><b>C. Management Standards</b></p> <p><b>1. Recreation</b></p> <p>a. Semi-primitive motorized, and roaded natural recreation opportunities will be provided (page 45).</p> <p><b>7. Facilities</b></p> <p>a. The arterial and collector system will be maintained for public use (page 47).</p>	No Change
C	17,216 Ac (~3%)	<p><b>C. Management Standards</b></p> <p><b>7. Facilities</b></p> <p><b>d. Beartooth District</b></p> <p>1) Travel is permitted on FR 3009 yearlong.</p> <p>2) The need for jeep roads in the Mill Draw, Ruby Draw, Gold Creek and the NF Line Creek will be analyzed using input from interested groups and agencies.</p> <p>3) All other roads in this management area on Beartooth District will be closed from December 1 to May 15 (page 51).</p>	<p><b>C. Management Standards</b></p> <p><b>7. Facilities</b></p> <p><b>d. Beartooth District</b></p> <p><u>Delete the following:</u></p> <p><b>d. Beartooth District</b></p> <p>1) Travel is permitted on FR 3009 yearlong.</p> <p>2) The need for jeep roads in the Mill Draw, Ruby Draw, Gold Creek and the NF Line Creek will be analyzed using input from interested groups and agencies.</p> <p>3) All other roads in this management area on Beartooth District will be closed from December 1 to May 15.</p> <p><u>Replace with:</u></p> <p><b>d. Beartooth District</b></p> <p>The Beartooth travel management direction will provide reasonable access but will confine motorized vehicles to specific roads and trails during critical periods to protect wildlife and other resources.</p>
D	65,813 Ac (~11%)	<p><b>C. Management Standards</b></p> <p><b>1. Recreation</b></p> <p>a. The travel plan for these areas will provide reasonable access for public recreation, hunting, and range maintenance and administration, but will confine motorized vehicles to specific roads and trails during critical periods to protect wildlife and other resources (page 53).</p>	No Change
E	28,315 Ac (~5%)	<p><b>C. Management Standards</b></p> <p><b>1. Recreation</b></p> <p>a. The recreation setting will generally be roaded natural and</p>	No Change

<sup>1</sup> Some Management Areas have joint designations and therefore, some acreages are double counted when totalling the figures. For example, Lost Water Canyon RNA, Management Area L, has joint designation with Lost Water Canyon Recommended Wilderness, Management Area H.

**Table B.1. Forest Plan management direction related to travel management.**

Management Area		Current FP Management Direction	Proposed Changes Applicable to All Action Alternatives
		<p>rural, although small areas of semiprimitive motorized will occur through the area (page 58).</p> <p><b>6. Facilities</b></p> <p><b>b.</b> Arterial and collector roads when constructed will be maintained for public use (page 60).</p>	
F	11,343 Ac (~2%)	<p><b>C. Management Standards</b></p> <p><b>9. Facilities</b></p> <p><b>a.</b> Roads will be maintained for safety, soil and water protection, and to provide for travel of passenger carrying vehicles.</p> <p><b>b.</b> If specific campgrounds are closed, the roads within them will also be closed (page 63).</p>	No Change
G	15,458 Ac (~3%)	<p><b>C. Management Standards</b></p> <p><b>1. Recreation</b></p> <p><b>a.</b> The recreation setting will primarily be roaded-natural and rural. Small areas of semi-primitive nonmotorized/motorized will occur, particularly where key wildlife habitat areas are protected from other resource activities (page 64).</p> <p><b>6. Facilities</b></p> <p><b>a.</b> Roads within this management area are generally multiple use roads, exceptions may be some of those constructed for minerals development.</p> <p><b>b.</b> Road management will be determined by the long-term needs of mineral and timber management. Locations will serve long-term uses for all resources. Use and travel restrictions will be considered to benefit or reduce adverse impacts to wildlife. The roads will be part of the Forest Transportation System and may be closed when not needed (page 65).</p>	No Change
H	115,390 Ac (~3%)	<p><b>C. Management Standards</b></p> <p><b>1. Recreation</b></p> <p><b>a.</b> These areas are closed to motorized vehicle use to avoid deterioration of the existing environment (page 67).</p> <p><b>8. Facilities</b></p>	<p><b>C. Management Standards</b></p> <p><b>1. Recreation</b></p> <p><b>a.</b> No Change</p> <p><u>Delete the following:</u></p> <p><b>8. Facilities</b></p>

**Appendix B: Forest Plan Direction and Proposed Changes**

**Table B.1. Forest Plan management direction related to travel management.**

Management Area		Current FP Management Direction	Proposed Changes Applicable to All Action Alternatives
		<b>b.</b> The two-track road (jeep trail) in the Pryor Mountains to Tony Island Spring will be closed (page 68).	<b>b.</b> <i>The two-track road (jeep trail) in the Pryor Mountains to Tony Island Spring will be closed.</i>
I	332,745 Ac (~54%)	<b>C. Management Standards</b> <b>1. Recreation</b> <b>c.</b> As a general rule, no motorized vehicles are allowed within the Wilderness (page 69).	No Change
L	24,992 Ac (~4%)	<b>C. Management Standards</b> <b>8. Facilities</b> <b>a.</b> Roads and other facilities will not be constructed in these areas. <b>b.</b> Existing public roads may be retained. Reconstruction will be allowed for public safety and protection of the soil and water resource (page 79).	No Change
M	Not Mapped – ~3%	<b>C. Management Standards</b> <b>1. Recreation</b> <b>b.</b> Motorized use will be restricted to existing roads and trails (page 80). <b>7. Facilities</b> <b>f.</b> Minimize the number of roads and/or pipelines crossing this management area to minimize disturbance of this ecosystem (page 81).	No Change
P	674 Ac (<1%)	<b>B. Goals</b> To provide adequate facilities for the administration of the Custer National Forest (page 88).	No Change
Q	4,376 Ac (~1%)	<b>C. Management Standards</b> <b>1. Recreation</b> <b>a.</b> Semi-primitive nonmotorized and semi-primitive motorized recreation opportunities will be provided. Motorized recreation opportunities will be limited to those existing along the Tillet Ridge Road. <b>7. Facilities</b> <b>c.</b> The Tillet Ridge road and the road to the Little Ice Cave will be maintained (page 89).	<b>C. Management Standards</b> <b>1. Recreation</b> <b>a.</b> <u>Delete the following:</u> <b>a.</b> <i>Motorized recreation opportunities will be limited to those existing along the Tillet Ridge Road.</i> <b>C. Management Standards</b> <b>7. Facilities</b> <b>c.</b> <u>Delete the following:</u> <b>c.</b> <i>The Tillet Ridge road and the road to the Little Ice Cave will be maintained.</i>
R.	18,897	<b>C. Management Standards</b> <b>1. Recreation</b> <b>c.</b> Vehicle travel is limited to the West Fork Rock Creek road #71, Silver Run Road #1476, and the jeep trail up Nichols Creek. No	<b>C. Management Standards</b> <b>1. Recreation</b> <b>c. and g.</b> <u>Delete the following:</u> <b>c.</b> <i>Vehicle travel is limited to the West Fork</i>

**Table B.1. Forest Plan management direction related to travel management.**

Management Area		Current FP Management Direction	Proposed Changes Applicable to All Action Alternatives
		<p>motorized travel will be permitted on the Basin Lake Trail (Forest Trail #61).</p> <p><b>g.</b> Trail 61 (Basin Lakes Trail) will be closed to horse use except during fall big game hunting season (page 91).</p> <p><b>7. Facilities</b></p> <p><b>b.</b> The Nichols Creek road will be retained as a primitive road and portions relocated.</p> <p><b>c.</b> Any reconstruction on Road #71 will be limited to that necessary for safety and protection of soil and water.</p> <p><b>e.</b> Roads to the existing recreation residences will be administered under special use permits.</p> <p><b>g.</b> The Silver Run Road will be closed at the first creek crossing and the old sheep drive to Ingles Creek will be closed to motorized vehicles.</p> <p><b>h.</b> Silver Run ski touring trail will be closed to all motorized vehicles yearlong unless specifically authorized (page 92).</p>	<p><i>Rock Creek road #71, Silver Run Road #1476, and the jeep trail up Nichols Creek. No motorized travel will be permitted on the Basin Lake Trail (Forest Trail #61).</i></p> <p><b>g.</b> <i>Trail 61 (Basin Lakes Trail) will be closed to horse use except during fall big game hunting season.</i></p> <p><b>C. Management Standards</b></p> <p><b>7. Facilities</b></p> <p><b>b., c., e., g., and h.</b></p> <p><u>Delete the following:</u></p> <p><b>b.</b> <i>The Nichols Creek road will be retained as a primitive road and portions relocated.</i></p> <p><b>c.</b> <i>Any reconstruction on Road #71 will be limited to that necessary for safety and protection of soil and water.</i></p> <p><b>e.</b> <i>Roads to the existing recreation residences will be administered under special use permits.</i></p> <p><b>g.</b> <i>The Silver Run Road will be closed at the first creek crossing and the old sheep drive to Ingles Creek will be closed to motorized vehicles.</i></p> <p><b>h.</b> <i>Silver Run ski touring trail will be closed to all motorized vehicles yearlong unless specifically authorized</i></p>
T	19,332	<p><b>C. Management Standards;</b></p> <p><b>1. Recreation:</b></p> <p><b>c.</b> Off-road vehicles, other than snow machines operating on snow, will be prohibited throughout the area (page 98).</p>	No change

**Appendix B: Forest Plan Direction and Proposed Changes**

**- End of Appendix B -**

# Appendix C: Alternative Details by Route

Tables C-1 through C-3 and C-5 display the specific changes or actions to roads and trails proposed under each of the action alternatives. The actions have been grouped into the following categories; not all alternatives have actions in every category.

- Non-System Routes Proposed to be System Roads
- Non-System Routes Proposed to be Motorized System Trails
- Non-System Routes Proposed to be Non-Motorized System Trails
- Non-System Routes Proposed for Administrative Use Only
- System Roads Proposed for Administrative Use Only
- System Roads Proposed to be Motorized System Trails
- System Roads Proposed to be Non-Motorized System Trails
- Motorized System Trails Proposed to be Non-Motorized System Trail
- Non-Motorized System Trails Proposed Changes in Types of Use
- System Roads Proposed to *Not* be Designated for Public Motorized Use
- Contingent Designation
- Season of Use Proposed Changes
- System Roads Proposed for Mixed Use

Table C-4 reflects the existing system roads, trails, administrative use, and seasons of use. It includes the following categories:

- System Roads Available to be Designated for Motorized Public Use – Highway Legal Vehicles
- System Trails Available to be Designated for Motorized Public Use – Motorcycles
- System Trails Available to be Designated for Motorized Public Use – Vehicles < 50”
- Non-Motorized System Trails
- Administrative Use
- Seasons of Use

**Table C – 1. Actions Associated with Alternative A**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative A – Specific Rationale
<b>Non-System Routes Proposed to be System Roads</b>				
2124	Line Creek Trailhead	0.24	Beartooth Unit	<b>Trailhead Access.</b> These non-system roads would be converted to system roads to provide public motorized access to existing developed trailheads.
20144B	Stillwater Plateau Cutoff	0.50	Beartooth Unit	
24003	Old Nye Picnic Area 1	0.03	Beartooth Unit	<b>Developed Recreation Sites.</b> These roads are within or access a developed recreation site.
24004	Old Nye Picnic Area 2	0.03	Beartooth Unit	
207214	Pine Grove Picnic Area	0.04	Beartooth Unit	
20053	Sheep Creek East Summer Homes	0.10	Beartooth Unit	<b>Recreation.</b> These non-system routes would be converted to system roads to provide the public with motorized recreation and/or dispersed vehicle camping opportunities. Several of these
20083	Robertson Draw Spur	0.46	Beartooth Unit	
20084	North Fork Line Creek	0.67	Beartooth Unit	

**Appendix C: Alternative Details by Route**

**Table C – 1. Actions Associated with Alternative A**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative A – Specific Rationale
20084A	North Fork Line Creek Spur	1.16	Beartooth Unit	routes provide links that create motorized loop opportunities.
20094	20094	0.14	Beartooth Unit	
20101	Palisades Camp (CCC)	0.34	Beartooth Unit	
20101A	20101A	0.23	Beartooth Unit	
20101B	20101B	0.14	Beartooth Unit	
20101C	20101C	0.36	Beartooth Unit	
2010B	Old CCC Road	0.38	Beartooth Unit	
20141	20141	0.06	Beartooth Unit	
20711	20711	0.25	Beartooth Unit	
207110	207110	0.06	Beartooth Unit	
207111	207111	0.05	Beartooth Unit	
20713	20713	0.14	Beartooth Unit	
20713A	20713A	0.04	Beartooth Unit	
20713B	20713B	0.03	Beartooth Unit	
20713C	20713C	0.09	Beartooth Unit	
20718	20718	0.12	Beartooth Unit	
20718A	20718A	0.06	Beartooth Unit	
20719	20719	0.21	Beartooth Unit	
2071B2	Timber Crest Summer Homes	0.09	Beartooth Unit	
20723	Powerline Access	0.57	Beartooth Unit	
20726	20726	0.14	Beartooth Unit	
20852	Dispersed Campsite	0.10	Pryor Unit	
20853	Tibbs Hollow	0.34	Pryor Unit	
20854	Clear Cut Gulch	0.23	Pryor Unit	
20855	Dispersed Campsite	0.10	Pryor Unit	
20856	Crooked Creek View Point	0.13	Pryor Unit	
2085P1	2085P1	0.13	Pryor Unit	
2085P2	2085P2	0.15	Pryor Unit	
2085T2	2085T2	0.15	Pryor Unit	
20971A	20971A	0.08	Pryor Unit	
20972	Roberts Bench	1.22	Pryor Unit	
2104A1	2104A1	0.25	Pryor Unit	
2122	Campsite	0.17	Beartooth Unit	
2123	Beartooth Hwy Gravel Pit	0.10	Beartooth Unit	
21404	Dispersed Camping North	0.20	Beartooth Unit	
21405	Castle Creek Overlook	0.14	Beartooth Unit	
21406	Dispersed Camping South	0.41	Beartooth Unit	
21407	Dispersed Camping North	0.13	Beartooth Unit	
2140B1	2140B1	0.38	Beartooth Unit	
2140B10	2140B10	0.98	Beartooth Unit	
2140B10A	2140B10A	0.15	Beartooth Unit	
2140B11	2140B11	0.24	Beartooth Unit	

**Table C – 1. Actions Associated with Alternative A**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative A – Specific Rationale
2140B1A	2140B1A	0.14	Beartooth Unit	
2140B1B	2140B1B	0.30	Beartooth Unit	
2140B1B1	2140B1B1	0.03	Beartooth Unit	
2140B1B2	2140B1B2	0.07	Beartooth Unit	
2140B1C	2140B1C	0.22	Beartooth Unit	
2140B2A	2140B2A	0.38	Beartooth Unit	
2140B3	2140B3	0.13	Beartooth Unit	
2140B4	2140B4	0.20	Beartooth Unit	
2140B5	Dispersed Campsite	0.08	Beartooth Unit	
2140B6	2140B6	0.37	Beartooth Unit	
2140B7	2140B7	0.24	Beartooth Unit	
2140B8	Dispersed Campsite	0.04	Beartooth Unit	
2140B9	Dispersed Campsite	0.09	Beartooth Unit	
2140D	North Picket Pin Lake	0.51	Beartooth Unit	
2140D1	South Picket Pin Lake East	0.30	Beartooth Unit	
2140D2	South Picket Pin Lake West	0.16	Beartooth Unit	
2140G	2140G	0.65	Beartooth Unit	
2140G1	2140G1	0.05	Beartooth Unit	
214110	214110	0.04	Beartooth Unit	
21412	21412	0.11	Beartooth Unit	
21413	21413	0.42	Beartooth Unit	
21413A	21413A	0.09	Beartooth Unit	
21413B	21413B	0.04	Beartooth Unit	
21413C	21413C	0.03	Beartooth Unit	
21414	21414	0.03	Beartooth Unit	
21415	Burnt Mountain	1.25	Beartooth Unit	
21415A	21415A	0.03	Beartooth Unit	
21415B	21415B	0.53	Beartooth Unit	
21415C	21415C	0.20	Beartooth Unit	
21415D	21415D	0.11	Beartooth Unit	
21416	Pole Road	0.19	Beartooth Unit	
21417	21417	0.12	Beartooth Unit	
21418	21418	0.31	Beartooth Unit	
21419	South Eaten	0.06	Beartooth Unit	
2141B	2141B	0.33	Beartooth Unit	
2141B1	2141B1	0.08	Beartooth Unit	
2141B2	2141B2	0.05	Beartooth Unit	
2144D1	Powerline Access Spur	0.14	Pryor Unit	
2144D2	Powerline Cutoff	0.12	Pryor Unit	
21778	Powerline Access	1.28	Beartooth Unit	
21779	Steep Creek Rec Residence	0.15	Beartooth Unit	
23081	Bass Creek	0.23	Pryor Unit	
23082	23082	0.11	Pryor Unit	

**Appendix C: Alternative Details by Route**

**Table C – 1. Actions Associated with Alternative A**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative A – Specific Rationale
23083	23083	0.14	Pryor Unit	
23084	23084	0.14	Pryor Unit	
2308B1	Dryhead Loop Cutoff 2	0.11	Pryor Unit	
2308K	Dispersed Camp Site	0.10	Pryor Unit	
2308W1	2308W1	0.17	Pryor Unit	
234611	234611	0.03	Beartooth Unit	
234612	234612	0.23	Beartooth Unit	
234613	234613	0.14	Beartooth Unit	
234614	Old Richel Lodge	0.07	Beartooth Unit	
24002	Stillwater Rec Residence	0.09	Beartooth Unit	
24005	Nye Trail Head	0.07	Beartooth Unit	
241411	241411	0.34	Beartooth Unit	
241412	241412	0.09	Beartooth Unit	
241413	241413	0.10	Beartooth Unit	
241414	241414	0.79	Beartooth Unit	
241415	241415	0.24	Beartooth Unit	
241415A	241415A	0.06	Beartooth Unit	
241416	Benbow Mill Site	0.25	Beartooth Unit	
241416A	Benbow Lower Mill Site	0.21	Beartooth Unit	
241416B	Benbow Middle Mill Site	0.16	Beartooth Unit	
241417	241417	0.16	Beartooth Unit	
241418	241418	0.97	Beartooth Unit	
241419	Benbow Mine	0.06	Beartooth Unit	
241422	241422	0.06	Beartooth Unit	
241423	241423	0.05	Beartooth Unit	
24142A	24142A	0.09	Beartooth Unit	
24142B	24142B	0.03	Beartooth Unit	
24145	24145	0.09	Beartooth Unit	
24146	24146	0.24	Beartooth Unit	
24149	24149	0.09	Beartooth Unit	
2414A	Powerline Access	0.17	Beartooth Unit	
24151	24151	0.06	Beartooth Unit	
24153	24153	0.17	Beartooth Unit	
24154	24154	0.18	Beartooth Unit	
24155	24155	0.18	Beartooth Unit	
24211	Dispersed Campsite	0.17	Beartooth Unit	
242110	Dispersed Campsite	0.04	Beartooth Unit	
242111	Dispersed Campsite	0.03	Beartooth Unit	
242112	Dispersed Campsite	0.03	Beartooth Unit	
242113	242113	0.16	Beartooth Unit	
242114	Dispersed Campsite	0.04	Beartooth Unit	
242115	242115	0.62	Beartooth Unit	
242115A	242115A	0.06	Beartooth Unit	

**Table C – 1. Actions Associated with Alternative A**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative A – Specific Rationale
242115B	242115B	0.32	Beartooth Unit	
242115B1	242115B1	0.03	Beartooth Unit	
242115B2	242115B2	0.07	Beartooth Unit	
242115B3	242115B3	0.12	Beartooth Unit	
242115B4	242115B4	0.03	Beartooth Unit	
242116	Dispersed Campsite	0.04	Beartooth Unit	
242119	Dispersed Campsite	0.07	Beartooth Unit	
24212	Dispersed Campsite	0.04	Beartooth Unit	
242120	Dispersed Campsite	0.04	Beartooth Unit	
24213	Dispersed Campsite	0.06	Beartooth Unit	
24214	24214	0.17	Beartooth Unit	
24215	Dispersed Campsite	0.05	Beartooth Unit	
24216	Dispersed Campsite	0.04	Beartooth Unit	
24217	Dispersed Campsite	0.06	Beartooth Unit	
24218	Dispersed Campsite	0.06	Beartooth Unit	
24219	Dispersed Campsite	0.23	Beartooth Unit	
24763	South Ingles Creek	0.34	Beartooth Unit	
24781	24781	0.04	Beartooth Unit	
24782	Nichols Creek Spur	0.39	Beartooth Unit	
24782A	Nichols Creek Spur A	0.14	Beartooth Unit	
24783	24783	0.06	Beartooth Unit	
24784	24784	0.10	Beartooth Unit	
24785	24785	0.27	Beartooth Unit	
24786	24786	0.02	Beartooth Unit	
25002	Ranger Canyon Trail	0.37	Pryor Unit	
25007	Range Development	0.26	Pryor Unit	
28461A	28461A	0.20	Beartooth Unit	
284651	Rabbit Gulch Trailhead Spur	0.36	Beartooth Unit	
284652	Rabbit Gulch Trailhead Spur	0.14	Beartooth Unit	
2846D1	2846D1	0.40	Beartooth Unit	
<b>Non-System Routes Proposed to be Motorized System Trail</b>				
20134	20134	0.35	Pryor Unit	<b>Non-System Routes Converted to System Trails Open to All Motor Vehicles.</b> These non-system routes would be converted to system trails and designated for use by all motorized vehicles. This provides an opportunity for users to operate off-highway vehicles on system trails. This use is also consistent with the majority of BLM managed roads that access or are adjacent to the Forest Service’s Pryor Unit.
20161	20161	0.15	Pryor Unit	
20162	20162	2.99	Pryor Unit	
20181	20181	0.16	Pryor Unit	
20182	20182	0.51	Pryor Unit	
20731	Schwend Gate	0.61	Pryor Unit	
2073I	2073I	0.23	Pryor Unit	
2085AA	2085AA	0.30	Pryor Unit	
2085AA	2085AA	0.85	Pryor Unit	
209110	209110	0.24	Pryor Unit	

**Appendix C: Alternative Details by Route**

**Table C – 1. Actions Associated with Alternative A**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative A – Specific Rationale
209111	209111	0.10	Pryor Unit	
209112	209112	0.10	Pryor Unit	
209112A	209112A	0.10	Pryor Unit	
209113	209113	0.36	Pryor Unit	
209114	209114	0.12	Pryor Unit	
209116	209116	0.37	Pryor Unit	
209117	209117	0.28	Pryor Unit	
209118	209118	0.15	Pryor Unit	
209118A	209118A	0.10	Pryor Unit	
20918	Gypsum Creek	0.04	Pryor Unit	
20918	Gypsum Creek	1.76	Pryor Unit	
2091A1	Sandra Mine Spur	0.21	Pryor Unit	
2091A1A	Sandra Mine Spur	0.11	Pryor Unit	
2091D1	2091D1	0.10	Pryor Unit	
2091H1	2091H1	0.17	Pryor Unit	
2091H2	2091H2	0.57	Pryor Unit	
2091H3	2091H3	1.10	Pryor Unit	
2091H4	2091H4	0.56	Pryor Unit	
2091T	Murdi Reservoir	2.75	Pryor Unit	
20951	20951	2.66	Pryor Unit	
20951A	20951A	0.33	Pryor Unit	
2095A1	Reservoir	0.36	Pryor Unit	
230811	230811	0.42	Pryor Unit	
230811	230811	0.19	Pryor Unit	
2308C	Dispersed Camp Site	0.31	Pryor Unit	
241410	241410	1.40	Beartooth Unit	
241410A	241410A	0.07	Beartooth Unit	
241410B	241410B	0.69	Beartooth Unit	
241420	241420	0.24	Beartooth Unit	
241421	241421	0.15	Beartooth Unit	
24148	Little Rocky Creek	0.61	Beartooth Unit	
24148A	24148A	0.10	Beartooth Unit	
24921	24921	1.18	Pryor Unit	
24922	24922	0.20	Pryor Unit	
24923	Bear Canyon Cutoff	0.27	Pryor Unit	
24924	24924	0.25	Pryor Unit	
24961	24961	0.33	Pryor Unit	
28501A	Timber Canyon	2.25	Pryor Unit	
28502	28502	0.10	Pryor Unit	
28503	28503	0.18	Pryor Unit	
28504	28504	0.36	Pryor Unit	
28504A	Sheep Reservoir	0.72	Pryor Unit	
28505	28505	0.40	Pryor Unit	

**Table C – 1. Actions Associated with Alternative A**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative A – Specific Rationale
28505A	28505A	0.25	Pryor Unit	
28506	28506	0.05	Pryor Unit	
28507	28507	0.41	Pryor Unit	
2850D	2850D	0.10	Pryor Unit	
2850E	Ingram Spring	0.17	Pryor Unit	
<b>Non-System Routes Proposed to be Non-Motorized System Trails</b>				
2142A	Dead Indian	0.08	Beartooth Unit	<b>Connect system road to system trail.</b> These small portions of non-system roads would be converted to system trail to make a connection between the existing system trail and system road.
83	Dead Indian	0.80	Beartooth Unit	
3A	Moon Lake	1.96	Beartooth Unit	<b>Need for system trail maintenance.</b> This non-system route is receiving sufficient use to warrant constructing drainage and other trail maintenance features on it. Construction of such features requires that the route be converted to system trail.
<b>Non-System Routes Proposed for Administrative Use Only</b>				
20952	20952	0.43	Pryor Unit	<b>Administrative use.</b> These non-system roads would be converted to system routes. These roads would not be designated for public use either due to health and safety hazards, or to help protect facilities and materials from vandalism. Use of these system roads or portions of system roads is needed for administrative purposes, and would be limited to Forest Service personnel, contractors, and permittees.
23089	Trapper Cabin	0.16	Pryor Unit	
25003	Range Development	0.13	Pryor Unit	
25004	Range Development	0.22	Pryor Unit	
25005	Range Development	0.20	Pryor Unit	
25006	Range Development	0.53	Pryor Unit	
234621	Lions Camp Water System	0.05	Beartooth Unit	
2071A1	Rock Creek Bone Yard	0.34	Beartooth Unit	
2071B1	Timber Crest Spur	0.15	Beartooth Unit	
2144Z1	Spring Development	0.11	Pryor Unit	
21479A	Horse Pasture	0.61	Beartooth Unit	
21479A	Horse Pasture	0.03	Beartooth Unit	
21479B	Redlodge Ski Area Bone Yard	0.07	Beartooth Unit	
21479C	Redlodge Mtn Com Site	0.07	Beartooth Unit	
21479D	Ski Area Pond Northside	0.47	Beartooth Unit	
21479D1	Ski Area Spur	0.04	Beartooth Unit	
21479E	Ski Area Pond Southside	0.36	Beartooth Unit	
241418A	241418a	0.53	Beartooth Unit	
2846J1	Mountain View Mine Spur	0.34	Beartooth Unit	
2846J2	Mountain View Mine Spur	0.12	Beartooth Unit	
<b>System Roads Proposed for Administrative Use Only</b>				
2012	Piney Creek	0.51	Pryor Unit	<b>Administrative use.</b> These roads would not be designated for public use either due to health and safety hazards, or to help protect facilities and materials from vandalism. Use of these system roads or portions of system roads is needed for administrative purposes, and would be limited to
20121	20121	0.55	Pryor Unit	
2014	Benbow-Stillwater Rd	4.46	Beartooth Unit	
2102	North Fork Sage Creek	1.93	Pryor Unit	
21403	Picket Pin Ranch	0.57	Beartooth Unit	

Appendix C: Alternative Details by Route

**Table C – 1. Actions Associated with Alternative A**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative A – Specific Rationale
2144B	Sage Creek Water System	0.33	Pryor Unit	Forest Service personnel, contractors, and permittees.
2144G	Geodome Home	0.12	Pryor Unit	
<b>System Roads Proposed to be Motorized System Trails</b>				
2002A	2002A	1.15	Pryor Unit	<p><b>System Routes Converted to System Trails Open to All Motor Vehicles.</b> These system roads would be converted to system trails and designated for use by all motorized vehicles. This provides an opportunity for users to operate off-highway vehicles on system trails. This use is also consistent with the majority of BLM managed roads that are access or are adjacent to the Forest Service’s Pryor Unit.</p>
2011	King Trail	3.62	Pryor Unit	
2012	Piney Creek	1.85	Pryor Unit	
2013	Graham Trail	2.70	Pryor Unit	
2016	East Of Bear Canyon	1.41	Pryor Unit	
2018	Inferno Canyon	2.78	Pryor Unit	
2073	Stevens Draw	2.00	Pryor Unit	
20731A	Old Timber Road	0.32	Pryor Unit	
2073F	Dispersed Campsite	0.22	Pryor Unit	
2073H	Dispersed Campsite	0.15	Pryor Unit	
2073H	Dispersed Campsite	0.03	Pryor Unit	
2073J	Old Timber Road	0.27	Pryor Unit	
2088	Shriver Peak Road	6.29	Pryor Unit	
2091	Red Pryor Divide	8.15	Pryor Unit	
20911	20911	0.48	Pryor Unit	
20912	20912	0.15	Pryor Unit	
20913	20913	0.38	Pryor Unit	
2091B	Sandra Mine	0.20	Pryor Unit	
2091D	Red Pryor Spring	0.36	Pryor Unit	
2091E	Bear Creek Spur	0.20	Pryor Unit	
2091F	Red Pryor Ice	0.30	Pryor Unit	
2091F	Red Pryor Ice	0.86	Pryor Unit	
2091H	Horse Haven	1.90	Pryor Unit	
2095	Bainbridge Loop	1.75	Pryor Unit	
2095A	2095A	1.41	Pryor Unit	
2096	Switchback	3.14	Pryor Unit	
2097	Beaverslide	2.38	Pryor Unit	
2097B	Beaverslide Cutoff	0.54	Pryor Unit	
2104	Tie Flats	1.44	Pryor Unit	
2144	Sage Creek	4.00	Pryor Unit	
2144	Sage Creek	0.42	Pryor Unit	
23087	23087	0.80	Pryor Unit	
2414	Benbow	0.98	Beartooth Unit	
2415	Benbow Jeep Trail	7.54	Beartooth Unit	
2492	Bear Canyon	2.94	Pryor Unit	
2496	Miller Trail	2.24	Pryor Unit	
2814	Bear Canyon Ridge	2.35	Pryor Unit	
2850	Stockman Trail	2.61	Pryor Unit	
2850	Stockman Trail	7.80	Pryor Unit	
28501	Water Canyon	0.54	Pryor Unit	

**Table C – 1. Actions Associated with Alternative A**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative A – Specific Rationale
2850B	2850B	0.75	Pryor Unit	
<b>System Roads Proposed to be Non-Motorized System Trails</b>				
2142	Meyers Creek/Lodgepole Road (from trailhead to system trail #83)	0.69	Beartooth Unit	<b>Connect system road to system trail.</b> This small portion of system road would be converted to system trail to make a connection between the existing system trail and system road.
<b>System Roads Proposed to <i>Not</i> Be Designated for Public Motorized Use</b>				
2144F	2144F	0.09	Pryor Unit	<b>Route has naturally revegetated; no identified administration, protection, or utilization need.</b> This system road would not be designated for public motorized use because it has largely revegetated naturally and there is no reasonably foreseeable administrative, protection, or utilization need for them.
2144H	Old Homestead	0.47	Pryor Unit	<b>No legal right-of-way.</b> The Forest Service has no legal right-of-way to these system roads. Per agency guidance associated with the 2005 Motorized Travel Rule, system roads without Forest Service legal right-of-way are not to be designated for public use.
24191	Old Bedford	0.72	Beartooth Unit	
<b>Season of Use Proposed Changes</b>				
2010	Palisades Campground	0.40	Beartooth Unit	<b>May 15 – September 30.</b> These campgrounds are currently gated at their entrance to help protect facilities from damage and vandalism during the portions of fall, winter, and spring when the campgrounds are not in use. The roads behind these gates are proposed to have a season of use consistent with closure of the gates.
2010A	Palisades Campground East Loop	0.07	Beartooth Unit	
2071C	Basin Creek Campground	0.40	Beartooth Unit	
2071D	Cascade Campground East Loop	0.20	Beartooth Unit	
2071G	Cascade Campground West Loop	0.37	Beartooth Unit	
2072A	Pine Grove Campground	0.43	Beartooth Unit	
2072A1	Pine Grove CG South Loop	0.24	Beartooth Unit	
2072B	Pine Grove North Loop	0.37	Beartooth Unit	
20721	Lower Pine Grove Campground	0.04	Beartooth Unit	
2072C	Emerald Lake Inlet	0.20	Beartooth Unit	
2072D	Emerald Lake South Loop	0.34	Beartooth Unit	
2177D	Jimmy Joe Campground	0.95	Beartooth Unit	
2379B	Sheridan Campground	0.27	Beartooth Unit	
2400A	Woodbine CG Entrance	0.23	Beartooth Unit	

Appendix C: Alternative Details by Route

**Table C – 1. Actions Associated with Alternative A**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative A – Specific Rationale
	Road			
2400B	Woodbine CG First Loop Left	0.51	Beartooth Unit	
2400C	Woodbine CG Second Loop Left	0.18	Beartooth Unit	
2400D	Woodbine CG First Loop Right	0.32	Beartooth Unit	
2400E	Woodbine CG Second Loop Right	0.20	Beartooth Unit	
2421B	Limber Pine Campground	0.34	Beartooth Unit	
2421D	Greenough Lake Campground	0.55	Beartooth Unit	
2140	Picket Pin	1.86	Beartooth Unit	<p><b>July 16 – March 31.</b> The Gallatin National Forest has identified this season of use for roads in the Picket Pin area on their Forest. District roads in the Picket Pin area that are accessed by Gallatin National Forest roads are proposed to have a similar season of use. In addition, a portion of Picket Pin Road (Road #2140) on the District leading up to the Gallatin National Forest is proposed to have a similar season of use date. This is because it is not safe to turn around at the Forest boundary and the beginning of the season of use needed to be moved to a safe vehicle turn-around point on Picket Pin Road.</p>
2140B	Iron Mountain	3.80	Beartooth Unit	
2140B1	2140B1	0.38	Beartooth Unit	
2140B10	2140B10	0.98	Beartooth Unit	
2140B10A	2140B10A	0.15	Beartooth Unit	
2140B11	2140B11	0.24	Beartooth Unit	
2140B1A	2140B1A	0.14	Beartooth Unit	
2140B1B	2140B1B	0.30	Beartooth Unit	
2140B1B1	2140B1B1	0.03	Beartooth Unit	
2140B1B2	2140B1B2	0.07	Beartooth Unit	
2140B1C	2140B1C	0.22	Beartooth Unit	
2140B2	2140B2	0.94	Beartooth Unit	
2140B2A	2140B2A	0.38	Beartooth Unit	
2140B3	2140B3	0.13	Beartooth Unit	
2140B4	2140B4	0.20	Beartooth Unit	
2140B5	Dispersed Campsite	0.08	Beartooth Unit	
2140B6	2140B6	0.37	Beartooth Unit	
2140B7	2140B7	0.24	Beartooth Unit	
2140B8	Dispersed Campsite	0.04	Beartooth Unit	
2140B9	Dispersed Campsite	0.09	Beartooth Unit	
2140D	North Picket Pin Lake	0.51	Beartooth Unit	
2140D1	South Picket Pin Lake East	0.30	Beartooth Unit	
2140D2	South Picket Pin Lake West	0.16	Beartooth Unit	
<b>System Roads Proposed for Mixed Use</b>				
2091	Red Pryor Divide	1.89	Pryor Unit	<p><b>These roads would be designated for use by all motorized vehicles.</b> This provides an opportunity for users to operate off-highway vehicles on system trails. This use is also consistent with the majority of BLM managed roads that access or are adjacent to the Forest Service’s Pryor Unit.</p>
2091A	Lisbon Road	0.80	Pryor Unit	
2091G	2091G	0.60	Pryor Unit	
2140	Picket Pin	8.57	Beartooth Unit	
2140	Picket Pin	1.86	Beartooth Unit	
21401	Old Sawmill Road	0.68	Beartooth Unit	
21401A	Picket Pin Camp	0.39	Beartooth Unit	
21401B	Old Sawmill Spur	1.50	Beartooth Unit	

**Table C – 1. Actions Associated with Alternative A**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative A – Specific Rationale
21404	Dispersed Camping North	0.20	Beartooth Unit	
21405	Castle Creek Overlook	0.14	Beartooth Unit	
21406	Dispersed Camping South	0.41	Beartooth Unit	
21407	Dispersed Camping North	0.13	Beartooth Unit	
2140B	Iron Mountain	3.80	Beartooth Unit	
2140B1	2140B1	0.38	Beartooth Unit	
2140B10	2140B10	0.98	Beartooth Unit	
2140B10A	2140B10A	0.15	Beartooth Unit	
2140B11	2140B11	0.24	Beartooth Unit	
2140B1A	2140B1A	0.14	Beartooth Unit	
2140B1B	2140B1B	0.30	Beartooth Unit	
2140B1B1	2140B1B1	0.03	Beartooth Unit	
2140B1B2	2140B1B2	0.07	Beartooth Unit	
2140B1C	2140B1C	0.22	Beartooth Unit	
2140B2	2140B2	0.94	Beartooth Unit	
2140B2A	2140B2A	0.38	Beartooth Unit	
2140B3	2140B3	0.13	Beartooth Unit	
2140B4	2140B4	0.20	Beartooth Unit	
2140B5	Dispersed Campsite	0.08	Beartooth Unit	
2140B6	2140B6	0.37	Beartooth Unit	
2140B7	2140B7	0.24	Beartooth Unit	
2140B8	Dispersed Campsite	0.04	Beartooth Unit	
2140B9	Dispersed Campsite	0.09	Beartooth Unit	
2140D	North Picket Pin Lake	0.51	Beartooth Unit	
2140D1	South Picket Pin Lake East	0.30	Beartooth Unit	
2140D2	South Picket Pin Lake West	0.16	Beartooth Unit	
2140G	2140G	0.65	Beartooth Unit	
2140G1	2140G1	0.05	Beartooth Unit	
2308	Pryor Mountain Road	0.84	Pryor Unit	

**Table C - 2. Actions Associated with Alternative B**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
<b>Non-System Routes Proposed to be System Roads</b>				
20144B	Stillwater Plateau Trailhead	0.50	Beartooth Unit	<b>Trailhead Access.</b> These non-system roads would be converted to system roads to provide public motorized access to existing developed trailheads.
2124	Line Creek Trailhead	0.24	Beartooth Unit	
207214	Pine Grove Picnic Area	0.04	Beartooth Unit	<b>Developed Recreation Sites.</b> These roads are within or access a developed recreation site.
24003	Old Nye Picnic Area 1	0.03	Beartooth Unit	
24004	Old Nye Picnic Area 2	0.03	Beartooth Unit	
20053	Sheep Creek East Rec Residence	0.10	Beartooth Unit	<b>Recreation Residences.</b> These existing routes either access or are within existing recreation

Appendix C: Alternative Details by Route

**Table C - 2. Actions Associated with Alternative B**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
2071B2	Timber Crest Rec Residence	0.09	Beartooth Unit	residence tracts. They would be converted to system roads and designated for public motorized use.
21779	Steep Creek Rec Residence	0.15	Beartooth Unit	
24002	Stillwater Rec Residence	0.09	Beartooth Unit	
21416	Pole Road	0.19	Beartooth Unit	<b>Timber.</b> This non-system road would be converted to a system road to provide access for potential future timber product sales.
207110	207110	0.06	Beartooth Unit	<b>Recreation.</b> These non-system routes would be converted to system roads to provide the public with quality motorized recreation and/or dispersed vehicle camping opportunities. Several of these routes provide links that create motorized loop opportunities. No key or critical resource concerns were identified that precluded consideration for route designation.
20713	20713	0.14	Beartooth Unit	
20713A	20713A	0.04	Beartooth Unit	
20713B	20713B	0.03	Beartooth Unit	
20713C	20713C	0.09	Beartooth Unit	
20852	Dispersed Campsite	0.10	Pryor Unit	
20855	Dispersed Campsite	0.10	Pryor Unit	
20856	Crooked Creek View Point	0.13	Pryor Unit	
20972	Roberts Bench	1.22	Pryor Unit	
21404	Dispersed Camping North	0.20	Beartooth Unit	
21405	Castle Creek Overlook	0.14	Beartooth Unit	
21406	Dispersed Camping South	0.41	Beartooth Unit	
21407	Dispersed Camping North	0.13	Beartooth Unit	
2140B1	2140B1	0.38	Beartooth Unit	
2140B10	2140B10	0.98	Beartooth Unit	
2140B10A	2140B10A	0.15	Beartooth Unit	
2140B11	2140B11	0.24	Beartooth Unit	
2140B1A	2140B1A	0.14	Beartooth Unit	
2140B1B	2140B1B	0.30	Beartooth Unit	
2140B1B1	2140B1B1	0.03	Beartooth Unit	
2140B1B2	2140B1B2	0.07	Beartooth Unit	
2140B1C	2140B1C	0.22	Beartooth Unit	
2140B2A	2140B2A	0.38	Beartooth Unit	
2140B3	2140B3	0.13	Beartooth Unit	
2140B4	2140B4	0.20	Beartooth Unit	
2140B5	Dispersed Campsite	0.08	Beartooth Unit	
2140B6	2140B6	0.37	Beartooth Unit	
2140B7	2140B7	0.24	Beartooth Unit	
2140B8	Dispersed Campsite	0.04	Beartooth Unit	
2140B9	Dispersed Campsite	0.09	Beartooth Unit	
2140D	North Picket Pin Lake	0.51	Beartooth Unit	
2140D1	South Picket Pin Lake East	0.30	Beartooth Unit	
2140D2	South Picket Pin Lake West	0.16	Beartooth Unit	
21778	Powerline Access	1.28	Beartooth Unit	

**Table C - 2. Actions Associated with Alternative B**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
23081	BASS CREEK	0.23	Pryor Unit	
230811	230811	0.42	Pryor Unit	
2308C	Dispersed Camp Site	0.31	Pryor Unit	
2308K	Dispersed Camp Site	0.10	Pryor Unit	
234614	Old Richel Lodge	0.07	Beartooth Unit	
241410	241410	1.40	Beartooth Unit	
241410A	241410A	0.07	Beartooth Unit	
241410B	241410B	0.69	Beartooth Unit	
241411	241411	0.34	Beartooth Unit	
241412	241412	0.09	Beartooth Unit	
241413	241413	0.10	Beartooth Unit	
241414	241414	0.79	Beartooth Unit	
241417	241417	0.16	Beartooth Unit	
241418	241418	0.97	Beartooth Unit	
24145	24145	0.09	Beartooth Unit	
24146	24146	0.24	Beartooth Unit	
24148	Little Rocky Creek	0.61	Beartooth Unit	
24148A	24148A	0.10	Beartooth Unit	
24149	24149	0.09	Beartooth Unit	
24151	24151	0.06	Beartooth Unit	
24153	24153	0.17	Beartooth Unit	
24154	24154	0.18	Beartooth Unit	
24155	24155	0.18	Beartooth Unit	
24211	Dispersed Campsite	0.17	Beartooth Unit	
242110	Dispersed Campsite	0.04	Beartooth Unit	
242111	Dispersed Campsite	0.03	Beartooth Unit	
242112	Dispersed Campsite	0.03	Beartooth Unit	
242113	242113	0.16	Beartooth Unit	
242114	Dispersed Campsite	0.04	Beartooth Unit	
242115	242115	0.62	Beartooth Unit	
242115A	242115A	0.06	Beartooth Unit	
242115B	242115B	0.32	Beartooth Unit	
242115B1	242115B1	0.03	Beartooth Unit	
242115B2	242115B2	0.07	Beartooth Unit	
242115B3	242115B3	0.12	Beartooth Unit	
242115B4	242115B4	0.03	Beartooth Unit	
242116	Dispersed Campsite	0.04	Beartooth Unit	
242119	Dispersed Campsite	0.07	Beartooth Unit	
24212	Dispersed Campsite	0.04	Beartooth Unit	
242120	Dispersed Campsite	0.04	Beartooth Unit	
24213	Dispersed Campsite	0.06	Beartooth Unit	
24214	24214	0.17	Beartooth Unit	
24215	Dispersed Campsite	0.05	Beartooth Unit	

Appendix C: Alternative Details by Route

**Table C - 2. Actions Associated with Alternative B**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
24216	Dispersed Campsite	0.04	Beartooth Unit	
24217	Dispersed Campsite	0.06	Beartooth Unit	
24218	Dispersed Campsite	0.06	Beartooth Unit	
24219	Dispersed Campsite	0.23	Beartooth Unit	
24763	South Ingles Creek	0.34	Beartooth Unit	
284651	Rabbit Gulch Trailhead Spur	0.36	Beartooth Unit	
284652	Rabbit Gulch Trailhead Spur	0.14	Beartooth Unit	
<b>Non-System Routes Proposed to be Motorized System Trails</b>				
20182	20182	0.51	Pryor Unit	<b>Non-System Routes Converted to System Trails Open to All Motor Vehicles.</b> These non-system routes would be converted to system trails and designated for use by all motorized vehicles. This provides an opportunity for users to operate off-highway vehicles on system trails. This use is also consistent with the majority of BLM managed roads that access or are adjacent to the Forest Service’s Pryor Unit.
20918	Gypsum Creek	1.80	Pryor Unit	
20923	Bear Canyon Cutoff	0.27	Pryor Unit	
24922	24922	0.20	Pryor Unit	
24961	24961	0.33	Pryor Unit	
209113	209113	0.36	Pryor Unit	
209114	209114	0.12	Pryor Unit	
28503	28503	0.18	Pryor Unit	
2085AA	2085AA	0.30	Pryor Unit	
2850D	2850D	0.10	Pryor Unit	
<b>Non-System Routes Proposed to Be Non-Motorized System Trails</b>				
83	Dead Indian	0.80	Beartooth Unit	<b>Connect system road to system trail.</b> This small portion of non-system road would be converted to system trail to make a connection between the existing system trail and system road.
2142A	Dead Indian	0.08	Beartooth Unit	
21041	Trail 30	0.42	Beartooth Unit	
21415	Burnt Mountain	1.25	Beartooth Unit	<b>Minimize fisheries concerns.</b> Proposed for non-motorized use to minimize fisheries concerns.
3A	Moon Lake	1.96	Beartooth Unit	<b>Need for system trail maintenance.</b> This non-system route is receiving sufficient use to warrant constructing drainage and other trail maintenance features on it. Construction of such features requires that the route be converted to system trail.
<b>Non-System Roads Proposed for Administrative Use Only</b>				
2071A1	Rock Creek Bone Yard	0.34	Beartooth Unit	<b>Administrative use.</b> These non-system roads would be converted to system routes. These roads would not be designated for public use either due to health and safety hazards, or to help protect facilities and materials from vandalism. Use of these system roads or portions of system roads is needed for administrative purposes, and would be limited to Forest Service personnel, contractors, and permittees.
2071B1	Timber Crest Spur	0.15	Beartooth Unit	
20952	20952	0.43	Pryor Unit	
2144Z1	Spring Development	0.11	Pryor Unit	
21479A	Horse Pasture	0.64	Beartooth Unit	
21479B	Red Lodge Ski Area Storage	0.07	Beartooth Unit	
21479C	Red Lodge Mtn. Comm. Site	0.07	Beartooth Unit	
21479D	Ski Area Pond North Side	0.47	Beartooth Unit	
21479D1	Ski Area Spur	0.04	Beartooth Unit	

**Table C - 2. Actions Associated with Alternative B**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
21479E	Ski Area Pond South Side	0.36	Beartooth Unit	
23089	Trapper Cabin	0.16	Pryor Unit	
234621	Lions Camp Water system	0.05	Beartooth Unit	
241418A	241418A	0.53	Beartooth Unit	
25003	Range Development	0.13	Pryor Unit	
25004	Range Development	0.22	Pryor Unit	
25005	Range Development	0.20	Pryor Unit	
25006	Range Development	0.53	Pryor Unit	
2846J1	Mountain View Mine Spur	0.34	Beartooth Unit	
2846J2	Mountain View Mine Spur	0.12	Beartooth Unit	
<b>System Roads Proposed for Administrative Use Only</b>				
2012	Piney Creek	0.51	Pryor Unit	<b>Administrative use.</b> These roads would not be designated for public use either due to health and safety hazards, or to help protect facilities and materials from vandalism. Use of these system roads or portions of system roads is needed for administrative purposes, and would be limited to Forest Service personnel, contractors, and permittees.
20121	20121	0.55	Pryor Unit	
2014	Benbow-Stillwater Rd	4.46	Beartooth Unit	
2073	Stevens Draw	1.45	Pryor Unit	
2073E	2073E	1.75	Pryor Unit	
2085U	Gooseberry Hollow	0.30	Pryor Unit	
2092D	2092D	0.30	Pryor Unit	
2094	Cave Ridge	1.40	Pryor Unit	
2095	Bainbridge Loop	1.75	Pryor Unit	
2102	North Fork Sage Creek	1.93	Pryor Unit	
21403	Picket Pin Ranch	0.57	Beartooth Unit	
21411	21411	0.81	Beartooth Unit	
2144B	Sage Creek Water System	0.33	Pryor Unit	
2144G	Geodome Home	0.12	Pryor Unit	
2846D	Horseman Flat Spring	0.54	Beartooth Unit	
2846E	2846E	0.35	Beartooth Unit	
2846F	Horseman Flat Northwest	0.50	Beartooth Unit	
<b>System Roads Proposed to be Motorized System Trail</b>				
2011	King Trail	3.62	Pryor Unit	<b>System Routes Converted to System Trails Open to All Motor Vehicles.</b> These system roads would be converted to system trails and designated for use by all motorized vehicles. This provides an opportunity for users to operate off-highway vehicles on system trails. This use is also consistent with the majority of BLM managed roads that access or are adjacent to the Forest Service’s Pryor Unit.
2012	Piney Creek	1.85	Pryor Unit	
2018	Inferno Canyon	2.78	Pryor Unit	
2091F	Red Pryor Ice	1.16	Pryor Unit	
2095A	2095A	1.41	Pryor Unit	
2088	Shriver Peak Road	6.29	Pryor Unit	
2091	Red Pryor Divide	8.15	Pryor Unit	
2096	Switchback	3.14	Pryor Unit	
2492	Bear Canyon	2.94	Pryor Unit	
2496	Miller Trail	2.24	Pryor Unit	
2814	Bear Canyon Ridge	2.35	Pryor Unit	
2850	Stockman Trail	10.41	Pryor Unit	

Appendix C: Alternative Details by Route

**Table C - 2. Actions Associated with Alternative B**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
<b>System Roads Proposed to be Non-Motorized System Trails</b>				
2141C	Rankin Homestead	1.30	Beartooth Unit	<b>Connect system road to system trail.</b> These portions of system roads would be converted to system trail to make a connection between the existing system trail and system road.
2142	Meyers Creek/Lodgepole Road (from trailhead to system trail #83)	0.69	Beartooth Unit	
<b>Motorized System Trails Proposed to Be Non-Motorized System Trail</b>				
22	Lodgepole Trail	1.66	Beartooth Unit	<b>Non-motorized use.</b> These trails would not be designated for motorized public use to provide additional opportunities for pack and saddle stock use; minimize impacts on elk migration through the area; reduce disturbance to high quality wildlife habitat; and provide a non-motorized hunting opportunity.
27	Meyers Creek Trail	4.53	Beartooth Unit	
<b>Non-Motorized System Trails Proposed Changes in Types of Use</b>				
1B	Lake Mary Trail	1.41	Beartooth Unit	<b>Pack and saddle stock limited to day use only.</b> Overnight stock use is creating undesirable impacts on the limited number of suitable camp sites along these trails.
2	Lake Fork Trail	9.34	Beartooth Unit	
2B	Lost Lake Trail	0.27	Beartooth Unit	
2D	Keyser Brown Trail	1.40	Beartooth Unit	
13B	Crow Lake	0.58	Beartooth Unit	<b>Pack and saddle stock restricted from use.</b> Unacceptable resource damage is occurring due to limited areas to hold stock for short periods or overnight.
14	Red Lodge Creek	0.45	Beartooth Unit	<b>Mechanized use restricted.</b> Mechanized use of a portion of this trail is proposed to discourage mechanized intrusion into the wilderness.
<b>System Roads Not Proposed to Be Designated for Public Motorized Use</b>				
2002	2002	0.42	Pryor Unit	<b>Previously harvested; limited recreation value.</b> This system road would not be designated for public motorized use because it does not provide a desirable dispersed vehicle camping opportunity.
2013	Graham Trail	2.70	Pryor Unit	<b>Parallel roads.</b> These system roads would not be designated for public motorized use because they provide access to the same locations as other parallel routes.
20911	20911	0.48	Pryor Unit	
20912	20912	0.15	Pryor Unit	
20913	20913	0.38	Pryor Unit	
2092B	2092B	0.44	Pryor Unit	
2097B	Beaverslide Cutoff	0.54	Pryor Unit	
2097C	Guard Station Cutoff	0.28	Pryor Unit	
2850B	2850b	0.75	Pryor Unit	
2016	East Of Bear Canyon	1.41	Pryor Unit	<b>Cultural resource concerns.</b> These system roads would not be designated for public
2085P	2085P	0.20	Pryor Unit	

**Table C - 2. Actions Associated with Alternative B**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
2085R	2085r	0.70	Pryor Unit	motorized use to reduce the risk of potential impacts on cultural resources.
2091D	Red Pryor Spring	0.36	Pryor Unit	
2091H	Horse Haven	1.90	Pryor Unit	
2308B	Dryhead Loop	0.62	Pryor Unit	
2849F	2849F	0.20	Pryor Unit	
2073H	Dispersed Campsite	0.03	Pryor Unit	
2478	Nichols Creek	1.94	Beartooth Unit	<b>Water quality concerns.</b> These roads or portions of roads would not be designated to reduce water quality impacts from motorized vehicle use.
2073J	Old Timber Road	0.27	Pryor Unit	<b>Erosion concerns.</b> This road would not be designated for public motorized use because of erosion concerns that would be difficult to mitigate.
2085A	Wyoming Creek Camp	0.48	Pryor Unit	<b>Water quality and cultural resource concerns.</b> This system road would not be designated for public motorized use because there are documented adverse water quality impacts created by the route that would be difficult to mitigate and to reduce impacts to cultural resources.
2085S	2085S	0.30	Pryor Unit	<b>Route has naturally revegetated; no identified administration, protection, or utilization need.</b> These system roads would not be designated for public motorized use because they have already either completely or largely revegetated naturally and there is no reasonably foreseeable administrative, protection, or utilization need for them.
2091E	Bear Creek Spur	0.20	Pryor Unit	
2144F	2144F	0.09	Pryor Unit	
2144I	Dry Head Creek	1.00	Pryor Unit	
2085T	Mill Hollow	0.70	Pryor Unit	<b>No administration, protection, or utilization need.</b> The end portion of this system road would not be designated for public motorized use. This route does not provide a loop opportunity nor does it offer desirable dispersed vehicle camping. No reasonably foreseeable administrative, protection, or utilization need has been identified.
2085T1	Mill Hollow Cabin	0.29	Pryor Unit	<b>Reduce risk of facility vandalism.</b> This system road would not be designated for public motorized use to reduce the risk of facilities being vandalized. This facility is located at the end of a relatively short route that does not provide highly desirable dispersed vehicle camping opportunities.

Appendix C: Alternative Details by Route

**Table C - 2. Actions Associated with Alternative B**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
2091B	Sandra Mine	0.20	Pryor Unit	<b>Mining reclamation, and health and safety.</b> This system road would not be designated for public motorized use because it dead ends in a uranium mine site that is identified for reclamation. Dead end roads may encourage visitors to stop or camp in the vicinity which is undesirable from a health and safety standpoint due to documented high radiation levels in the mine area. In addition, it is undesirable to have vehicle use in the area during and upon completion of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remediation. Vehicle use of the site (tread disturbance of soils) could adversely affect the remediation efforts.
2092	Commissary Ridge	0.75	Pryor Unit	<b>Non-motorized experience and cultural resources.</b> The end portion of this system road would not be designated for public motorized use to provide multiple non-motorized recreation opportunities including hiking, vistas, and dispersed camping. This proposal would also reduce impacts to cultural resources.
2099	2099	0.59	Pryor Unit	<b>No identified administrative, protection, or utilization need.</b> These system roads would not be designated for public motorized use because they are not desirable for dispersed vehicle camping and there is no reasonably foreseeable administrative, protection, or utilization need for them.
23086	23086	0.58	Pryor Unit	
23087	23087	0.80	Pryor Unit	
23088	23088	0.52	Pryor Unit	
20731A	Old Timber Road	0.32	Pryor Unit	
2073A	Schwend Ranch Access	0.10	Pryor Unit	
2073F	Dispersed Campsite	0.22	Pryor Unit	
2092E	2092e	0.53	Pryor Unit	
2144J	Cabin And Spring	0.55	Pryor Unit	
2144H	Old Homestead	0.47	Pryor Unit	
24191	Old Bedford	0.72	Beartooth Unit	<b>No legal right-of-way.</b> The Forest Service has no legal right-of-way to these system roads. Per agency guidance associated with the 2005 Motorized Travel Rule, system roads without Forest Service legal right-of-way are not to be designated for public use.
2009	Line Creek	1.68	Beartooth Unit	<b>Concurrent system road as well as a non-motorized trail in the Forest Service inventory.</b> This proposal would remove the system road status in the inventory but keep this route as a non-motorized trail.
2144	Sage Creek (Punchbowl area)	0.42	Pryor Unit	<b>Erosion concerns.</b> These roads or portions of roads would not be designated for public motorized use because of erosion concerns that would be difficult to mitigate.
25001	25001	0.51	Pryor Unit	<b>Limited recreational opportunity.</b> These system roads would not be designated for public motorized use because they do not provide a
2308W	2308W	0.60	Pryor Unit	

**Table C - 2. Actions Associated with Alternative B**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
				desirable dispersed vehicle camping opportunity (i.e. located underneath powerlines, on steep terrain, or formerly cultivated farmland).
<b>Season of Use Proposed Changes</b>				
2141	Red Lodge Creek	2.50	Beartooth Unit	<b>June 1 – April 1.</b> This season of use is proposed to minimize damage to the roads from motor vehicle use during spring breakup. The Forest Service invested money in re-routing a portion of this road and is seeking to protect that investment. Season of use dates are based on Snotel Site data in the vicinity of the Beartooth front range.
21416	Pole Road	0.19	Beartooth Unit	
24763	South Ingles Creek	0.34	Beartooth Unit	<b>April 15 – December 1.</b> These roads are accessed by West Fork of Rock Creek Road (Road #2071) which has a season of use of April 15 to December 1. Consequently, a similar season of use is proposed for these roads.
20713	20713	0.14	Beartooth Unit	
20713A	20713A	0.04	Beartooth Unit	
20713B	20713B	0.03	Beartooth Unit	
20713C	20713C	0.09	Beartooth Unit	
207110	207110	0.06	Beartooth Unit	
2010	Palisades Campground	0.40	Beartooth Unit	<b>May 15 – September 30.</b> These campgrounds are currently gated at their entrance to help protect facilities from damage and vandalism during the portions of fall, winter, and spring when the campgrounds are not in use. The roads behind these gates are proposed to have a season of use consistent with closure of the gates.
2010A	Palisades Campground East Loop	0.07	Beartooth Unit	
2071C	Basin Creek Campground	0.40	Beartooth Unit	
2071D	Cascade Campground East Loop	0.20	Beartooth Unit	
2071G	Cascade Campground West Loop	0.37	Beartooth Unit	
2072A	Pine Grove Campground	0.43	Beartooth Unit	
2072A1	Pine Grove CG South Loop	0.24	Beartooth Unit	
2072B	Pine Grove North Loop	0.37	Beartooth Unit	
20721	Lower Pine Grove Campground	0.04	Beartooth Unit	
2072C	Emerald Lake Inlet	0.20	Beartooth Unit	
2072D	Emerald Lake South Loop	0.34	Beartooth Unit	
2177D	Jimmy Joe Campground	0.95	Beartooth Unit	
2379B	Sheridan Campground	0.27	Beartooth Unit	
2400A	Woodbine CG Entrance Road	0.23	Beartooth Unit	
2400B	Woodbine CG First Loop Left	0.51	Beartooth Unit	
2400C	Woodbine CG Second Loop Left	0.18	Beartooth Unit	
2400D	Woodbine CG First Loop Right	0.32	Beartooth Unit	
2400E	Woodbine CG Second Loop Right	0.20	Beartooth Unit	
2421B	Limber Pine Campground	0.34	Beartooth Unit	

Appendix C: Alternative Details by Route

**Table C - 2. Actions Associated with Alternative B**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
2421D	Greenough Lake Campground	0.55	Beartooth Unit	
2002A	2002A	1.15	Pryor Unit	<b>June 15 - April 15.</b> This season of use is being proposed to minimize road damage (rutting, braiding, head-cutting) from motor vehicle use when roads are typically moist due to ground thawing and snow melting.
2002A1	2002A1	0.20	Pryor Unit	
2011	King Trail	3.62	Pryor Unit	
2018	Inferno Canyon	2.78	Pryor Unit	
20182	20182	0.51	Pryor Unit	
2073	Stevens Draw	2.00	Pryor Unit	
2073H	Dispersed Campsite	0.15	Pryor Unit	
2088	Shriver Peak Road	6.29	Pryor Unit	
2091	Red Pryor Divide	8.15	Pryor Unit	
209113	209113	0.36	Pryor Unit	
209114	209114	0.12	Pryor Unit	
2091F	Red Pryor Ice	0.86	Pryor Unit	
2092	Commissary Ridge	3.00	Pryor Unit	
2092C	2092C	0.95	Pryor Unit	
2093	Island Ridge	1.60	Pryor Unit	
2095A	2095A	1.41	Pryor Unit	
2097	Beaverslide	2.38	Pryor Unit	
20972	Roberts Bench	1.22	Pryor Unit	
2097A	Guard Station Green Cabin	0.15	Pryor Unit	
2104	Tie Flats	1.44	Pryor Unit	
2104A	2104A	0.30	Pryor Unit	
2144	Sage Creek	4.00	Pryor Unit	
2308	Pryor Mountain Road	10.46	Pryor Unit	
2308K	Dispersed Camp Site	0.10	Pryor Unit	
2850	Stockman Trail	6.14	Pryor Unit	
28503	28503	0.18	Pryor Unit	
2850D	2850D	0.10	Pryor Unit	
2140	Picket Pin	1.86	Beartooth Unit	<b>July 16 – March 31.</b> The Gallatin National Forest has identified this season of use for roads in the Picket Pin area on their Forest. District roads in the Picket Pin area that are accessed by Gallatin National Forest roads are proposed to have a similar season of use. In addition, a portion of Picket Pin Road (Road #2140) on the District leading up to the Gallatin National Forest is proposed to have a similar season of use date. This is because it is not safe to turn around at the Forest boundary and the beginning of the season of use needed to be moved to a safe vehicle turn-around point on Picket Pin Road.
2140B	Iron Mountain	3.80	Beartooth Unit	
2140B1	2140B1	0.38	Beartooth Unit	
2140B10	2140B10	0.98	Beartooth Unit	
2140B10A	2140B10A	0.15	Beartooth Unit	
2140B11	2140B11	0.24	Beartooth Unit	
2140B1A	2140B1A	0.14	Beartooth Unit	
2140B1B	2140B1B	0.30	Beartooth Unit	
2140B1B1	2140B1B1	0.03	Beartooth Unit	
2140B1B2	2140B1B2	0.07	Beartooth Unit	
2140B1C	2140B1C	0.22	Beartooth Unit	
2140B2	2140B2	0.94	Beartooth Unit	
2140B2A	2140B2A	0.38	Beartooth Unit	
2140B3	2140B3	0.13	Beartooth Unit	

**Table C - 2. Actions Associated with Alternative B**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
2140B4	2140B4	0.20	Beartooth Unit	
2140B5	Dispersed Campsite	0.08	Beartooth Unit	
2140B6	2140B6	0.37	Beartooth Unit	
2140B7	2140B7	0.24	Beartooth Unit	
2140B8	Dispersed Campsite	0.04	Beartooth Unit	
2140B9	Dispersed Campsite	0.09	Beartooth Unit	
2140D	North Picket Pin Lake	0.51	Beartooth Unit	
2140D1	South Picket Pin Lake East	0.30	Beartooth Unit	
2140D2	South Picket Pin Lake West	0.16	Beartooth Unit	
<b>System Roads Proposed for Mixed Use</b>				
2091	Red Pryor Divide	1.89	Pryor Unit	<b>These roads would be designated for use by all motorized vehicles.</b> This provides an opportunity for users to operate off-highway vehicles on system trails. This use is also consistent with the majority of BLM managed roads that access or are adjacent to the Forest Service’s Pryor Unit.
2091A	Lisbon Road	0.80	Pryor Unit	
2091G	2091g	0.60	Pryor Unit	
2140	Picket Pin	10.43	Beartooth Unit	
21401	Old Sawmill Road	0.68	Beartooth Unit	
21401B	Old Sawmill Spur	1.50	Beartooth Unit	
21401A	Picket Pin Camp	0.39	Beartooth Unit	
21404	Dispersed Camping North	0.20	Beartooth Unit	
21405	Castle Creek Overlook	0.14	Beartooth Unit	
21406	Dispersed Camping South	0.41	Beartooth Unit	
21407	Dispersed Camping North	0.13	Beartooth Unit	
2140B	Iron Mountain	3.80	Beartooth Unit	
2140B1	2140B1	0.38	Beartooth Unit	
2140B1A	2140B1A	0.14	Beartooth Unit	
2140B1B	2140B1B	0.30	Beartooth Unit	
2140B1B1	2140B1B1	0.03	Beartooth Unit	
2140B1B2	2140B1B2	0.07	Beartooth Unit	
2140B1C	2140B1C	0.22	Beartooth Unit	
2140B2	2140B2	0.94	Beartooth Unit	
2140B2A	2140B2A	0.38	Beartooth Unit	
2140B3	2140B3	0.13	Beartooth Unit	
2140B4	2140B4	0.20	Beartooth Unit	
2140B5	Dispersed Campsite	0.08	Beartooth Unit	
2140B6	2140B6	0.37	Beartooth Unit	
2140B7	2140B7	0.24	Beartooth Unit	
2140B8	Dispersed Campsite	0.04	Beartooth Unit	
2140B9	Dispersed Campsite	0.09	Beartooth Unit	
2140B10	2140B10	0.98	Beartooth Unit	
2140B10A	2140B10A	0.15	Beartooth Unit	
2140B11	2140B11	0.24	Beartooth Unit	
2140D	North Picket Pin Lake	0.51	Beartooth Unit	

Appendix C: Alternative Details by Route

**Table C - 2. Actions Associated with Alternative B**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
2140D1	South Picket Pin Lake East	0.30	Beartooth Unit	
2140D2	South Picket Pin Lake West	0.16	Beartooth Unit	

**Table C - 3. Actions Associated with Alternative C**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative C – Specific Rationale
<b>Non-System Routes Proposed to be System Roads</b>				
20144B	Stillwater Plateau Trailhead	0.50	Beartooth Unit	<b>Trailhead Access.</b> These non-system roads would be system roads to provide public motorized access to existing developed trailheads.
2124	Line Creek Trailhead	0.24	Beartooth Unit	
241410	241410	1.4	Beartooth Unit	<b>Recreation.</b> These non-system routes would be converted to system roads to provide the public with quality motorized recreation and/or dispersed vehicle camping opportunities. These routes were identified through the collaborative process associated with this project.
241410B	241410B	.69	Beartooth Unit	
24143	24143	.10	Beartooth Unit	
24148	Little Rocky Creek	.61	Beartooth Unit	
207214	Pine Grove Picnic Area	0.04	Beartooth Unit	<b>Developed Recreation Sites.</b> These roads are within or access a developed recreation site.
24003	Old Nye Picnic Area 1	0.03	Beartooth Unit	
24004	Old Nye Picnic Area 2	0.03	Beartooth Unit	
20053	Sheep Creek East Summer Homes	0.10	Beartooth Unit	<b>Recreation Residences.</b> These existing routes either access or are within existing recreation residence tracts. They would be converted to system roads and designated for public motorized use.
2071B2	Timber Crest Summer Homes	0.09	Beartooth Unit	
21779	Steep Creek Rec Residence	0.15	Beartooth Unit	
24002	Stillwater Rec Residence	0.09	Beartooth Unit	
21416	Pole Road	0.19	Beartooth Unit	<b>Timber.</b> This is non-system road would be converted to a system road to provide access for potential future timber product sales.
<b>Non-System Routes Proposed to be Non-Motorized System Trails</b>				
83	Dead Indian	0.80	Beartooth Unit	<b>Connect system road to system trail.</b> These small portions of non-system roads would be converted to system trail to make a connection between the existing system trail and system road.
2142A	Dead Indian	0.08	Beartooth Unit	
21041	Trail 30	0.42	Pryor Unit	
21415	Burnt Mountain	1.25	Beartooth Unit	<b>Minimize fisheries concerns.</b> Proposed for non-motorized use to minimize fisheries concern.
3A	Moon Lake	1.96	Beartooth Unit	<b>Need for system trail maintenance.</b> This non-system route is receiving sufficient use to warrant constructing drainage and other trail maintenance features on it. Construction of such features requires that the route be converted to system trail.
<b>Non-System Routes Proposed for Administrative Use Only</b>				
20952	20952	0.43	Pryor Unit	<b>Administrative use.</b> These non-system roads

**Table C - 3. Actions Associated with Alternative C**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative C – Specific Rationale
23081	Bass Creek	0.23	Pryor Unit	would be converted to system routes. These roads would not be designated for public use either due to health and safety hazards, or to help protect facilities and materials from vandalism. Use of these system roads or portions of system roads is needed for administrative purposes, and would be limited to Forest Service personnel, contractors, and permittees.
23089	Trapper Cabin	0.16	Pryor Unit	
25003	Range Development	0.13	Pryor Unit	
25004	Range Development	0.22	Pryor Unit	
25005	Range Development	0.20	Pryor Unit	
25006	Range Development	0.53	Pryor Unit	
234621	Lions Camp Water system	0.05	Beartooth Unit	
241418	241418	0.97	Beartooth Unit	
2071A1	Rock Creek Bone Yard	0.34	Beartooth Unit	
2071B1	Timber Crest Spur	0.15	Beartooth Unit	
2144Z1	Spring Development	0.11	Pryor Unit	
21479A	Horse Pasture	0.64	Beartooth Unit	
21479B	Red Lodge Ski Area Storage	0.07	Beartooth Unit	
21479C	Red Lodge Mtn. Comm. Site	0.07	Beartooth Unit	
21479D	Ski Area Pond North Side	0.47	Beartooth Unit	
21479D1	Ski Area Spur	0.04	Beartooth Unit	
21479E	Ski Area Pond South Side	0.36	Beartooth Unit	
241418A	241418A	0.53	Beartooth Unit	
2846J1	Mountain View Mine Spur	0.34	Beartooth Unit	
2846J2	Mountain View Mine Spur	0.12	Beartooth Unit	
<b>System Roads Proposed for Administrative Use Only</b>				
2012	Piney Creek	0.51	Pryor Unit	<b>Administrative use.</b> These roads would not be designated for public use either due to health and safety hazards, or to help protect facilities and materials from vandalism. Use of these system roads or portions of system roads is needed for administrative purposes, and would be limited to Forest Service personnel, contractors, and permittees.
2014	Benbow-Stillwater Rd	4.46	Beartooth Unit	
2073	Stevens Draw	3.45	Pryor Unit	
2092	Commissary Ridge	1.00	Pryor Unit	
2094	Cave Ridge	1.40	Pryor Unit	
2095	Bainbridge Loop	1.75	Pryor Unit	
2097	Beaverslide	2.58	Pryor Unit	
2102	North Fork Sage Creek	1.93	Pryor Unit	
2104	Tie Flats	1.44	Pryor Unit	
2501	2501	0.15	Pryor Unit	
20121	20121	0.55	Pryor Unit	
21403	Picket Pin Ranch	0.57	Beartooth Unit	
21411	21411	0.81	Beartooth Unit	
21772	North Side East Rosebud Lake	0.15	Beartooth Unit	
2073E	2073E	1.75	Pryor Unit	
2085T	Mill Hollow	3.03	Pryor Unit	
2085U	Gooseberry Hollow	0.30	Pryor Unit	
2092D	2092D	0.30	Pryor Unit	
2097A	Guard Station Green Cabin	0.15	Pryor Unit	

Appendix C: Alternative Details by Route

**Table C - 3. Actions Associated with Alternative C**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative C – Specific Rationale
2144B	Sage Creek Water System	0.33	Pryor Unit	
2144C	Schwend Ranch Main Access	0.11	Pryor Unit	
2144G	Geodome Home	0.48	Pryor Unit	
2144G2	2144G2	0.50	Pryor Unit	
2144M	2144M	1.43	Pryor Unit	
2144Z	Spring	0.88	Pryor Unit	
2846E	2846E	0.35	Beartooth Unit	
2846F	Horseman Flat Northwest	0.50	Beartooth Unit	
<b>System Roads Proposed to be Non-Motorized System Trails</b>				
2141C	Rankin Homestead	1.30	Beartooth Unit	<b>Connect system road to system trail.</b> This small portion of system road would be converted to system trail to make a connection between the existing system trail and system road.
2142	Meyers Creek/Lodgepole Road	0.69	Beartooth Unit	
<b>Motorized System Trails Proposed to be Non-Motorized System Trails</b>				
22	Lodgepole	1.66	Beartooth Unit	<b>Non-motorized use.</b> These trails would not be designated for motorized public use to provide additional opportunities for pack and saddle stock use; minimize impacts on elk migration through the area; reduce disturbance to high quality wildlife habitat; and provide a non-motorized hunting opportunity.
27	Meyers Creek	4.53	Beartooth Unit	
106	Lower Parkside	2.16	Beartooth Unit	<b>Non-motorized use.</b> This proposal provides more opportunity for non-motorized use.
<b>Non-Motorized System Trails Proposed Changes in Types of Use</b>				
1B	Lake Mary Trail	1.41	Beartooth Unit	<b>Pack and saddle stock limited to day use only.</b> Overnight stock use is creating undesirable impacts on the limited number of suitable camp sites along these trails.
2	Lake Fork Trail	9.34	Beartooth Unit	
2B	Lost Lake Trail	0.27	Beartooth Unit	
2D	Keyser Brown Trail	1.40	Beartooth Unit	
13B	Crow Lake	0.58	Beartooth Unit	<b>Pack and saddle stock restricted from use.</b> Unacceptable resource damage is occurring due to limited areas to hold stock for short periods or overnight.
14	Red Lodge Creek	0.45	Beartooth Unit	<b>Mechanized use restricted.</b> Mechanized use of a portion of this trail is proposed to discourage mechanized intrusion into the wilderness.
<b>System Roads Proposed to <i>Not</i> Be Designated for Public Motorized Use</b>				
2002	2002	0.42	Pryor Unit	<b>Previously harvested; limited recreation value.</b>

Table C - 3. Actions Associated with Alternative C

Route #	Route Name	Length (Miles)	Geographic Area	Alternative C – Specific Rationale
2002A	2002A	1.15	Pryor Unit	This system road would not be designated for public motorized use because it does not provide a desirable dispersed vehicle camping opportunity.
2002A1	2002A1	0.20	Pryor Unit	
20911	20911	0.48	Pryor Unit	<b>Parallel roads.</b> These system roads would not be designated for public motorized use because they provide access to the same locations as other parallel routes.
20912	20912	0.15	Pryor Unit	
20913	20913	0.38	Pryor Unit	
2016	East of Bear Canyon	1.41	Pryor Unit	<b>Cultural resource concerns.</b> These system roads would not be designated for public motorized use to reduce the risk of potential impacts on cultural resources.
2091D	Red Pryor Spring	0.36	Pryor Unit	
2091H	Horse Haven	1.90	Pryor Unit	
2085P	2085P	0.20	Pryor Unit	
2085R	2085R	0.70	Pryor Unit	
2849F	2849F	0.20	Pryor Unit	
2099	2099	0.59	Pryor Unit	
23086	23086	0.58	Pryor Unit	<b>No identified administrative, protection, or utilization need.</b> These system roads would not be designated for public motorized use because they are not desirable for dispersed vehicle camping and there is no reasonably foreseeable administrative, protection, or utilization need for them.
23087	23087	0.80	Pryor Unit	
23088	23088	0.52	Pryor Unit	
20731A	Old Timber Road	0.32	Pryor Unit	
2073A	Schwend Ranch Access	0.10	Pryor Unit	
2073F	Dispersed Campsite	0.22	Pryor Unit	
2092E	2092E	0.53	Pryor Unit	
2144J	Cabin and Spring	0.55	Pryor Unit	
2073H	Dispersed Campsite	0.18	Pryor Unit	
2478	Nichols Creek	1.94	Beartooth Unit	
2073J	Old Timber Road	0.27	Pryor Unit	<b>Erosion concerns.</b> This road would not be designated for public motorized use because of erosion concerns that would be difficult to mitigate.
2085A	Wyoming Creek Camp	0.48	Pryor Unit	<b>Water quality and cultural resource concerns.</b> This system road would not be designated for public motorized use because it has documented adverse water quality impacts created by the route that would be difficult to mitigate and to reduce impacts to cultural resources.
2085S	2085S	0.30	Pryor Unit	<b>Route has naturally revegetated; no identified administration, protection, or utilization need.</b> These system roads would not be designated for public motorized use because they have already either completely or largely revegetated naturally and there is no reasonably foreseeable administrative, protection, or utilization need for them.
2091E	Bear Creek Spur	0.20	Pryor Unit	
2144F	2144F	0.09	Pryor Unit	
2144I	Dry Head Creek	1.00	Pryor Unit	

Appendix C: Alternative Details by Route

**Table C - 3. Actions Associated with Alternative C**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative C – Specific Rationale
2085T1	Mill Hollow Cabin	0.29	Pryor Unit	<b>Reduce risk of facility vandalism.</b> This system road would not be designated for public motorized use to reduce the risk of facilities being vandalized. This facility is located at the end of a relatively short route that does not provide highly desirable dispersed vehicle camping opportunities.
2091B	Sandra Mine	0.20	Pryor Unit	<b>Mining reclamation, and health and safety.</b> This system road would not be designated for public motorized use because it dead ends in a uranium mine site that is identified for reclamation. Dead end roads may encourage visitors to stop or camp in the vicinity which is undesirable from a health and safety standpoint due documented high radiation levels in the mine area. In addition, it is undesirable to have vehicle use in the area during and upon completion of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remediation. Vehicle use of the site (tread disturbance of soils) could adversely affect the remediation efforts.
2009	Line Creek	1.68	Beartooth Unit	<b>Concurrent system road as well as a non-motorized trail in the Forest Service inventory.</b> This proposal would remove the system road status in the inventory but keep this route as a non-motorized trail.
2011	King Trail	3.62	Pryor Unit	<b>Non-motorized experience.</b> This change would provide multiple non-motorized recreation opportunities.
2012	Piney Creek	1.85	Pryor Unit	
2018	Inferno Canyon	2.78	Pryor Unit	
2092	Commissary Ridge	1.75	Pryor Unit	
2093	2093	1.60	Pryor Unit	
2096	Switchback	3.14	Pryor Unit	
2098	Elk Springs	0.91	Pryor Unit	
2144	Sage Creek	2.82	Pryor Unit	
2503	2503	0.30	Pryor Unit	
2814	Bear Canyon Ridge	2.35	Pryor Unit	
2850	Stockman Trail	1.66	Pryor Unit	
24143	24143	0.57	Beartooth Unit	
28461	Horseman Flat Gravel Pit	0.95	Beartooth Unit	
28466	Horseman Flat	0.95	Beartooth Unit	
28501	Water Canyon	0.54	Pryor Unit	
2091F	Red Pryor Ice	1.16	Pryor Unit	
2091G	2091G	0.60	Pryor Unit	
2092C	2092C	0.95	Pryor Unit	
2095A	2095A	1.41	Pryor Unit	
2104A	2104A	0.30	Pryor Unit	

**Table C - 3. Actions Associated with Alternative C**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative C – Specific Rationale
2144D	Powerline Access	1.65	Pryor Unit	
2144E	Powerline Access Spur	0.27	Pryor Unit	
2846D	Horseman Flat Spring	0.54	Beartooth Unit	
2092B	2092B	0.44	Pryor Unit	<b>Parallel roads.</b> These system roads would not be designated for public motorized use because they provide access to the same locations as other parallel routes.
2097B	Beaverslide Cutoff	0.54	Pryor Unit	
2097C	Guard Station Cutoff	0.28	Pryor Unit	
2850B	2850B	0.75	Pryor Unit	
2308W	2308W	0.60	Pryor Unit	<b>Limited recreational value.</b> These system roads would not be designated for public motorized use because they are located underneath powerlines, on steep terrain, or formerly cultivated farmland and do not provide a desirable dispersed recreation opportunity.
25001	25001	0.51	Pryor Unit	
2144H	Old Homestead	0.94	Pryor Unit	<b>No legal right-of-way.</b> The Forest Service has no legal right-of-way to these system roads. Per agency guidance associated with the 2005 Motorized Travel Rule, system roads without Forest Service legal right-of-way are not to be designated for public use.
24191	Old Bedford	0.72	Beartooth Unit	
<b>Season of Use Proposed Changes</b>				
2010	Palisades Campground	0.40	Beartooth Unit	<b>May 15 – September 30.</b> These campgrounds are currently gated at their entrance to help protect facilities from damage and vandalism during the portions of fall, winter, and spring when the campgrounds are not in use. The roads behind these gates are proposed to have a season of use consistent with closure of the gates.
2010A	Palisades Campground East Loop	0.07	Beartooth Unit	
2071C	Basin Creek Campground	0.40	Beartooth Unit	
2071D	Cascade Campground East Loop	0.20	Beartooth Unit	
2071G	Cascade Campground West Loop	0.37	Beartooth Unit	
2072A	Pine Grove Campground	0.43	Beartooth Unit	
2072A1	Pine Grove CG South Loop	0.24	Beartooth Unit	
2072B	Pine Grove North Loop	0.37	Beartooth Unit	
20721	Lower Pine Grove Campground	0.04	Beartooth Unit	
2072C	Emerald Lake Inlet	0.20	Beartooth Unit	
2072D	Emerald Lake South Loop	0.34	Beartooth Unit	
2177D	Jimmy Joe Campground	0.95	Beartooth Unit	
2379B	Sheridan Campground	0.27	Beartooth Unit	
2400A	Woodbine CG Entrance Road	0.23	Beartooth Unit	
2400B	Woodbine CG First Loop Left	0.51	Beartooth Unit	
2400C	Woodbine CG Second Loop Left	0.18	Beartooth Unit	

Appendix C: Alternative Details by Route

**Table C - 3. Actions Associated with Alternative C**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative C – Specific Rationale
2400D	Woodbine CG First Loop Right	0.32	Beartooth Unit	
2400E	Woodbine CG Second Loop Right	0.20	Beartooth Unit	
2421B	Limber Pine Campground	0.34	Beartooth Unit	
2421D	Greenough Lake Campground	0.55	Beartooth Unit	
2091	Red Pryor Divide	4.05	Pryor Unit	<b>June 15 – April 15.</b> This season of use is being proposed to minimize road damage (rutting, braiding, head-cutting) from motor vehicle use when roads are typically moist due to ground thawing and snow melting.
2308	Pryor Mountain Road	10.46	Pryor Unit	
2496	Miller Trail	0.90	Pryor Unit	
2850	Stockman Trail	3.70	Pryor Unit	
2140	Picket Pin	1.86	Beartooth Unit	<b>July 16 – March 31.</b> The Gallatin National Forest has identified this season of use for roads in the Picket Pin area on their Forest. District roads in the Picket Pin area that are accessed by Gallatin National Forest roads are proposed to have a similar season of use. In addition, a portion of Picket Pin Road (Road #2140) on the District leading up to the Gallatin National Forest is proposed to have a similar season of use date. This is because it is not safe to turn around at the Forest boundary and the beginning of the season of use needed to be moved to a safe vehicle turn-around point on Picket Pin Road.
2140B	Iron Mountain	3.80	Beartooth Unit	
2140B2	2140B2	0.94	Beartooth Unit	

**Table C - 4. No Action Alternative – Existing System Roads, Trails, Administrative Use, and Seasons of Use**

Route #	Route Name	Length (Miles)	Geographic Area	No Action Alternative - Comments
<b>System Roads Available to be Designated For Motorized Public Use – Highway Legal Vehicle</b>				
2002	2002	0.42	Pryor Unit	<b>System Roads.</b>
2002A	2002A	1.15	Pryor Unit	
2002A1	2002A1	0.20	Pryor Unit	
2004	Hellroaring Creek	5.64	Beartooth Unit	
2005	Snow Cr/Sheep Cr Summer Homes	0.77	Beartooth Unit	
20051	Sheep Creek West Summer Homes	0.27	Beartooth Unit	
20052	Snow Creek Summer Homes	0.30	Beartooth Unit	
2008	Robertson Draw	3.94	Beartooth Unit	
2009	Line Creek	1.68	Beartooth Unit	
2010	Palisades Campground	0.66	Beartooth Unit	
2010A	Palisades Campground East Loop	0.07	Beartooth Unit	
2011	King Trail	3.62	Pryor Unit	

**Table C - 4. No Action Alternative – Existing System Roads, Trails, Administrative Use, and Seasons of Use**

Route #	Route Name	Length (Miles)	Geographic Area	No Action Alternative - Comments
2012	Piney Creek	2.36	Pryor Unit	
20121	20121	0.55	Pryor Unit	
2013	Graham Trail	2.70	Pryor Unit	
2014	Benbow-Stillwater Rd	6.04	Beartooth Unit	
20142	20142	0.42	Beartooth Unit	
20144	The Golf Course	0.42	Beartooth Unit	
2016	East Of Bear Canyon	1.41	Pryor Unit	
2018	Inferno Canyon	2.78	Pryor Unit	
2071	West Fork Rock Creek	10.09	Beartooth Unit	
2071C	Basin Creek Campground	0.40	Beartooth Unit	
2071D	Cascade Campground East Loop	0.20	Beartooth Unit	
2071E	Camp Senia Summer Homes	0.40	Beartooth Unit	
2071F	Wild Bills Lake Parking	0.10	Beartooth Unit	
2071G	Cascade Campground West Loop	0.37	Beartooth Unit	
2071H	Basin Trailhead	0.07	Beartooth Unit	
2072	West Rosebud	6.28	Beartooth Unit	
20721	Lower Pine Grove Campground	0.04	Beartooth Unit	
2072A	Pine Grove Campground	0.43	Beartooth Unit	
2072A1	Pine Grove Cg South Loop	0.24	Beartooth Unit	
2072B	Pine Grove North Loop	0.37	Beartooth Unit	
2072C	Emerald Lake Inlet	0.20	Beartooth Unit	
2072D	Emerald Lake South Loop	0.34	Beartooth Unit	
2073	Stevens Draw	3.45	Pryor Unit	
20731A	Old Timber Road	0.32	Pryor Unit	
2073A	Schwend Ranch Access	0.10	Pryor Unit	
2073E	2073E	1.75	Pryor Unit	
2073F	Dispersed Campsite	0.22	Pryor Unit	
2073H	Dispersed Campsite	0.18	Pryor Unit	
2073J	Old Timber Road	0.27	Pryor Unit	
2083	Sage Creek Campground	0.28	Pryor Unit	
2085	Crooked Creek	9.25	Pryor Unit	
2085A	Wyoming Creek Camp	0.48	Pryor Unit	
2085P	2085P	0.20	Pryor Unit	
2085R	2085R	0.70	Pryor Unit	
2085S	2085S	0.30	Pryor Unit	
2085T	Mill Hollow	3.03	Pryor Unit	
2085T1	Mill Hollow Cabin	0.29	Pryor Unit	
2085U	Gooseberry Hollow	0.30	Pryor Unit	
2088	Shriver Peak Road	6.29	Pryor Unit	
2091	Red Pryor Divide	10.04	Pryor Unit	
2091A	Lisbon Road	0.80	Pryor Unit	

**Appendix C: Alternative Details by Route**

**Table C - 4. No Action Alternative – Existing System Roads, Trails, Administrative Use, and Seasons of Use**

<b>Route #</b>	<b>Route Name</b>	<b>Length (Miles)</b>	<b>Geographic Area</b>	<b>No Action Alternative - Comments</b>
2091B	Sandra Mine	0.20	Pryor Unit	
2091D	Red Pryor Spring	0.36	Pryor Unit	
2091E	Bear Creek Spur	0.20	Pryor Unit	
2091F	Red Pryor Ice	1.16	Pryor Unit	
2091G	2091G	0.60	Pryor Unit	
2091H	Horse Haven	1.90	Pryor Unit	
2092	Commissary Ridge	3.75	Pryor Unit	
2092B	2092B	0.44	Pryor Unit	
2092C	2092C	0.95	Pryor Unit	
2092D	2092D	0.30	Pryor Unit	
2092E	2092E	0.53	Pryor Unit	
2093	Island Ridge	1.60	Pryor Unit	
2094	Cave Ridge	1.40	Pryor Unit	
2095	Bainbridge Loop	1.75	Pryor Unit	
2095A	2095A	1.41	Pryor Unit	
2097	Beaverslide	2.58	Pryor Unit	
2097A	Guard Station Green Cabin	0.15	Pryor Unit	
2097B	Beaverslide Cutoff	0.54	Pryor Unit	
2097C	Guard Station Cutoff	0.28	Pryor Unit	
2098	Elk Springs	0.91	Pryor Unit	
2099	2099	0.59	Pryor Unit	
2102	North Fork Sage Creek	1.93	Pryor Unit	
2104	Tie Flats	1.44	Pryor Unit	
2104A	2104A	0.30	Pryor Unit	
2121	Beartrack Trailhead	0.08	Beartooth Unit	
2125	Vista Point	0.05	Beartooth Unit	
2140	Picket Pin	12.42	Beartooth Unit	
21401	Old Sawmill Road	0.68	Beartooth Unit	
21401A	Picket Pin Camp	0.39	Beartooth Unit	
21401B	Old Sawmill Spur	1.50	Beartooth Unit	
21403	Picket Pin Ranch	0.57	Beartooth Unit	
2140B	Iron Mountain	3.80	Beartooth Unit	
2140B2	2140B2	0.94	Beartooth Unit	
2141	Red Lodge Creek	4.49	Beartooth Unit	
21411	21411	0.81	Beartooth Unit	
2141C1	Leuschen	0.74	Beartooth Unit	
2142	Meyers Creek/Lodgepole Road	0.08	Beartooth Unit	
2143	Meyers Creek Work Center	0.25	Beartooth Unit	
2144	Sage Creek	6.18	Pryor Unit	
2144B	Sage Creek Water System	0.33	Pryor Unit	
2144C	Schwend Ranch Main Access	0.11	Pryor Unit	
2144D	Powerline Access	1.65	Pryor Unit	

**Table C - 4. No Action Alternative – Existing System Roads, Trails, Administrative Use, and Seasons of Use**

Route #	Route Name	Length (Miles)	Geographic Area	No Action Alternative - Comments
2144E	Power Line Access Spur	0.27	Pryor Unit	
2144F	2144F	0.09	Pryor Unit	
2144G	Geodome Home	0.48	Pryor Unit	
2144G2	2144G2	0.50	Pryor Unit	
2144H	Old Homestead	0.94	Pryor Unit	
2144I	Dry Head Creek	1.00	Pryor Unit	
2144J	Cabin And Spring	0.55	Pryor Unit	
2144M	2144M	1.43	Pryor Unit	
2144Z	Spring	0.88	Pryor Unit	
2177	East Rosebud	6.86	Beartooth Unit	
21771	Boat Launch Parking	0.10	Beartooth Unit	
21772	North Side East Rosebud Lake	0.15	Beartooth Unit	
2177A	Upper Sand Dune Picnic Area	0.23	Beartooth Unit	
2177B	East Rosebud Campground	0.28	Beartooth Unit	
2177D	Jimmy Joe Campground	0.95	Beartooth Unit	
2177E	Lower Sand Dune Picnic Area	0.14	Beartooth Unit	
2308	Pryor Mountain Road	20.04	Pryor Unit	
23086	23086	0.58	Pryor Unit	
23087	23087	0.80	Pryor Unit	
23088	23088	0.52	Pryor Unit	
2308A	Big Ice Cave Picnic Area	0.12	Pryor Unit	
2308B	Dryhead Loop	0.62	Pryor Unit	
2308W	2308W	0.60	Pryor Unit	
2346	Lake Fork	1.97	Beartooth Unit	
2379A	Spring Cr Summer Homes-A	1.24	Beartooth Unit	
2379B	Sheridan Campground	0.27	Beartooth Unit	
2379C	Rattin Campground	0.27	Beartooth Unit	
2379E	Spring Cr Summer Homes-E	0.18	Beartooth Unit	
2379F	Spring Cr Summer Homes-F	0.16	Beartooth Unit	
2379G	Corral Creek Trail Head	0.05	Beartooth Unit	
2379H	Spring Cr Summer Homes-H	0.15	Beartooth Unit	
2379I	Spring Cr Summer Homes-I	0.09	Beartooth Unit	
2379J	Spring Cr Summer Homes-J	0.20	Beartooth Unit	
2400	Stillwater Trailhead Rd	1.02	Beartooth Unit	
2400A	Woodbine Cg Entrance Road	0.23	Beartooth Unit	
2400B	Woodbine Cg First Loop Left	0.51	Beartooth Unit	
2400C	Woodbine Cg Second Loop Left	0.18	Beartooth Unit	
2400D	Woodbine Cg First Loop Right	0.32	Beartooth Unit	
2400E	Woodbine Cg Second Loop Right	0.20	Beartooth Unit	
2414	Benbow	10.23	Beartooth Unit	
24141	Benbow Mill Dispersed Campsite	0.57	Beartooth Unit	

Appendix C: Alternative Details by Route

**Table C - 4. No Action Alternative – Existing System Roads, Trails, Administrative Use, and Seasons of Use**

Route #	Route Name	Length (Miles)	Geographic Area	No Action Alternative - Comments
24142	Delger Road	0.59	Beartooth Unit	
24143	24143	0.57	Beartooth Unit	
24147	Beartooth Christian Ranch	0.49	Beartooth Unit	
2415	Benbow Jeep Trail	7.54	Beartooth Unit	
24191	Old Bedford	0.72	Beartooth Unit	
2421	Main Fork Rock Creek	8.63	Beartooth Unit	
2421A	Upper Parkside Campground	0.44	Beartooth Unit	
2421B	Limber Pine Campground	0.34	Beartooth Unit	
2421C	M K Campground	0.20	Beartooth Unit	
2421D	Greenough Lake Campground	0.55	Beartooth Unit	
2421F	Lower Parkside Campground Loop	0.27	Beartooth Unit	
2476	Silver Run	2.04	Beartooth Unit	
24761	Hull Hancock	0.06	Beartooth Unit	
24762	Ringer	0.05	Beartooth Unit	
2478	Nichols Creek	1.94	Beartooth Unit	
2492	Bear Canyon	2.94	Pryor Unit	
2496	Miller Trail	2.24	Pryor Unit	
2500	Powerline Road	5.28	Pryor Unit	
25001	25001	0.51	Pryor Unit	
2501	2501	0.15	Pryor Unit	
2503	2503	0.30	Pryor Unit	
2814	Bear Canyon Ridge	2.35	Pryor Unit	
2846	West Fork Stillwater	8.83	Beartooth Unit	
28461	Horseman Flat Gravel Pit	0.95	Beartooth Unit	
28465	Rabbit Gulch Trailhead	0.08	Beartooth Unit	
28466	Horseman Flat	0.95	Beartooth Unit	
2846B	Initial Creek Campground	0.30	Beartooth Unit	
2846D	Horseman Flat Spring	0.54	Beartooth Unit	
2846E	2846E	0.35	Beartooth Unit	
2846F	Horseman Flat Northwest	0.50	Beartooth Unit	
2849	Burnt Timber Ridge	4.08	Pryor Unit	
2849F	2849F	0.20	Pryor Unit	
2850	Stockman Trail	10.41	Pryor Unit	
28501	Water Canyon	0.54	Pryor Unit	
2850B	2850B	0.75	Pryor Unit	
<b>System Trails Available to be Designated For Motorized Public Use – Motorcycles</b>				
22	Lodgepole	1.66	Beartooth Unit	System Trails.
27	Meyers Creek	4.53	Beartooth Unit	
<b>System Trails Available to be Designated For Motorized Public Use – Vehicles &lt; 50”</b>				

**Table C - 4. No Action Alternative – Existing System Roads, Trails, Administrative Use, and Seasons of Use**

Route #	Route Name	Length (Miles)	Geographic Area	No Action Alternative - Comments
106	Lower Parkside	2.16	Beartooth Unit	System Trails.
<b>Non-Motorized System Trails</b>				
1	West Fork	10.60	Beartooth Unit	System Trails.
1A	Lower West Fork	0.94	Beartooth Unit	
1B	Lake Mary	1.41	Beartooth Unit	
2	Lake Fork	9.34	Beartooth Unit	
2A	Lower Lake Fork	1.75	Beartooth Unit	
2B	Lost Lake	0.27	Beartooth Unit	
2D	Keyser Brown	1.40	Beartooth Unit	
3	Glacier Lake	2.16	Beartooth Unit	
5	Robertson Draw	1.40	Beartooth Unit	
5A	Spur A	0.58	Beartooth Unit	
5B	Spur B	0.22	Beartooth Unit	
7	Face-Of-The-Mountain	11.93	Beartooth Unit	
7A	Line Creek Station Spur	2.11	Beartooth Unit	
8	Bear Track	11.35	Beartooth Unit	
9	Corral Creek	7.84	Beartooth Unit	
10	Line Creek Plateau	16.08	Beartooth Unit	
11	Hellroaring Plateau	4.21	Beartooth Unit	
12	Timberline	4.50	Beartooth Unit	
12A	Lower Timberline	0.39	Beartooth Unit	
13	Spread Creek	7.52	Beartooth Unit	
13A	Sylvan	0.58	Beartooth Unit	
13B	Crow Lake	0.58	Beartooth Unit	
14	Red Lodge Creek	7.85	Beartooth Unit	
15	East Rosebud	16.64	Beartooth Unit	
16	Camp Senia	5.30	Beartooth Unit	
17	Phantom Creek	10.99	Beartooth Unit	
17A	Phantom Lake	1.17	Beartooth Unit	
19	West Rosebud	5.46	Beartooth Unit	
19A	Huckleberry	1.83	Beartooth Unit	
20	Rabbit Gulch	6.19	Beartooth Unit	
21	Grasshopper Glacier	2.83	Beartooth Unit	
21A	Goose Lake	0.38	Beartooth Unit	
24	Stillwater Trail	23.92	Beartooth Unit	
29	Trout Creek	2.92	Beartooth Unit	
30	Big Pryor	1.25	Pryor Unit	
34	Horseshoe	3.47	Beartooth Unit	
35	Ingles Creek	2.55	Beartooth Unit	
37	East Fishtail	3.78	Beartooth Unit	
37A	Twin Lakes	1.91	Beartooth Unit	
38	Island Lake Loop	1.67	Beartooth Unit	

Appendix C: Alternative Details by Route

**Table C - 4. No Action Alternative – Existing System Roads, Trails, Administrative Use, and Seasons of Use**

Route #	Route Name	Length (Miles)	Geographic Area	No Action Alternative - Comments	
38A	Island Lake	0.46	Beartooth Unit		
43	Fish Lake	1.09	Beartooth Unit		
44	Rainbow Lakes	1.03	Beartooth Unit		
51	Stillwater Plateau	2.00	Beartooth Unit		
61	Basin Lakes	3.72	Beartooth Unit		
62	Wild Bill Lake	0.43	Beartooth Unit		
64	Silver Run Plateau	3.08	Beartooth Unit		
72	Castle Creek	5.89	Beartooth Unit		
72A	Castle Creek Spur	1.30	Beartooth Unit		
74	Washo Creek	1.35	Beartooth Unit		
83	Dead Indian	3.08	Beartooth Unit		
88	Pass Creek	3.48	Beartooth Unit		
90	West Fork Stillwater	25.51	Beartooth Unit		
91	Pinchot Lake	3.61	Beartooth Unit		
97	Columbine Pass	3.72	Beartooth Unit		
93	Woodbine Falls	0.78	Beartooth Unit		
94	Bad Canyon	1.35	Beartooth Unit		
95	Beartrap	5.13	Beartooth Unit		
99	Big Ice Cave	0.12	Pryor Unit		
101	Vista Point	0.15	Beartooth Unit		
102	Silver Run Trail	3.78	Beartooth Unit		
102A	Silver Run Spur A	0.26	Beartooth Unit		
102B	Silver Run Tie B	0.06	Beartooth Unit		
102C	Silver Run Tie C	0.11	Beartooth Unit		
102D	Silver Run Tie D	0.16	Beartooth Unit		
102E	Silver Run-Basin Tie	0.11	Beartooth Unit		
102F	Silver Run Tie F	0.18	Beartooth Unit		
103	Parkside	2.30	Beartooth Unit		
103A	Greenough Lake	0.23	Beartooth Unit		
105	Willow Creek	1.97	Beartooth Unit		
<b>Administrative Use</b>					
2087	Red Lodge Ranger Station	0.06	Beartooth Unit		<b>Administrative use.</b> These roads would not be designated for public use either due to health and safety hazards, or to help protect facilities and materials from vandalism. Use of these system roads or portions of system roads is needed for administrative purposes, and would be limited to Forest Service personnel, contractors, and permittees.
2143	Meyers Creek Work Center	0.60	Beartooth Unit		
2223	Sage Creek Guard Station	0.50	Pryor Unit		
2491	Bad Canyon Road	4.01	Beartooth Unit		
21479	Redlodge Ski Area	4.28	Beartooth Unit		
23462	Lions Camp	0.13	Beartooth Unit		
24911	South Ridge Bad Canyon Road	3.22	Beartooth Unit		
24912	24912	1.37	Beartooth Unit		
24913	Whittaker Flat	1.26	Beartooth Unit		
28462	Mountain View Mine Spur	1.61	Beartooth Unit		
28463	Mountain View Mine Spur	0.08	Beartooth Unit		

**Table C - 4. No Action Alternative – Existing System Roads, Trails, Administrative Use, and Seasons of Use**

Route #	Route Name	Length (Miles)	Geographic Area	No Action Alternative - Comments
28464	Mountain View Mine Spur	0.57	Beartooth Unit	
2071A	Rock Creek Work Center	0.31	Beartooth Unit	
2071B	Timber Crest Girl Scout Camp	0.40	Beartooth Unit	
2141C	Rankin Homestead	1.30	Beartooth Unit	
2143A	2143A	0.45	Beartooth Unit	
2308H	East Pryor Communication Site	0.22	Pryor Unit	
2379D	Westminster Spires	0.21	Beartooth Unit	
2421E	Greenough Lake Access	0.21	Beartooth Unit	
2846G	Smc Storage Area	0.49	Beartooth Unit	
2846H	Nickel Camp	0.64	Beartooth Unit	
2846J	Mountain View Mine	7.56	Beartooth Unit	
<b>Seasons of Use</b>				
2008	Robertson Draw	3.94	Beartooth Unit	<b>April 15 – December 1.</b> Existing motorized seasons of use to minimize disturbance in core elk winter range.
2071	West Fk Rock Cr	7.77	Beartooth Unit	
2346	Lake Fork	1.43	Beartooth Unit	
2476	Silver Run	1.94	Beartooth Unit	
2071F	Wild Bill Lake Parking Area	0.10	Beartooth Unit	
2071H	Basin Trailhead	0.07	Beartooth Unit	
2085T	Mill Hollow	2.30	Pryor Unit	<b>June 30 – September 1.</b> Existing motorized season of use to allow for firewood cutting and other uses, and to protect road construction investment for future timber products activities.
19	West Rosebud Trail	5.46	Beartooth Unit	
19A	Huckleberry Trail	1.83	Beartooth Unit	<b>September 1 to December 1.</b> Pack and saddle stock is allowed only during this season of use
61	Basin Lakes Trail	3.72	Beartooth Unit	
All other system routes			District-wide	<b>Yearlong.</b>

**Table C - 5. Actions Associated with Alternative B Modified**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
<b>Non-System Routes Proposed to be System Roads</b>				
2124	Line Creek Trailhead	0.24	Beartooth Unit	<b>Trailhead Access.</b> These non-system roads would be system roads to provide public motorized access to existing developed trailheads.
20144B	Stillwater Plateau Trailhead	0.50	Beartooth Unit	
207214	Pine Grove Picnic Area	0.04	Beartooth Unit	<b>Developed Recreation Sites.</b> These roads are within or access a developed recreation site.
24003	Old Nye Picnic Area 1	0.03	Beartooth Unit	
24004	Old Nye Picnic Area 2	0.03	Beartooth Unit	

Appendix C: Alternative Details by Route

**Table C - 5. Actions Associated with Alternative B Modified**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
20053	Sheep Creek East Rec Residence	0.10	Beartooth Unit	<b>Recreation Residences.</b> These existing routes either access or are within existing recreation residence tracts. They would be converted to system roads and designated for public motorized use.
21779	Steep Creek Rec Residence	0.15	Beartooth Unit	
24002	Stillwater Rec Residence	0.09	Beartooth Unit	
21416	Pole Road	0.19	Beartooth Unit	<b>Timber.</b> This is non-system road would be converted to a system road to provide access for potential future timber product sales.
207110	207110	0.06	Beartooth Unit	<b>Recreation.</b> These non-system routes would be converted to system roads to provide the public with quality motorized recreation and/or dispersed vehicle camping opportunities. Several of these routes provide links that create motorized loop opportunities. No key or critical resource concerns were identified that precluded consideration for route designation.
20713	20713	0.14	Beartooth Unit	
20713A	20713A	0.04	Beartooth Unit	
20713B	20713B	0.03	Beartooth Unit	
20713C	20713C	0.09	Beartooth Unit	
20852	Dispersed Campsite	0.10	Pryor Unit	
20855	Dispersed Campsite	0.10	Pryor Unit	
20856	Crooked Creek View Point	0.13	Pryor Unit	
20972	Roberts Bench	0.59	Pryor Unit	
21404	Dispersed Camping North	0.20	Beartooth Unit	
21405	Castle Creek Overlook	0.14	Beartooth Unit	
21406	Dispersed Camping South	0.41	Beartooth Unit	
2140B1	2140B1	0.38	Beartooth Unit	
2140B10	2140B10	0.98	Beartooth Unit	
2140B10A	2140B10A	0.15	Beartooth Unit	
2140B11	2140B11	0.24	Beartooth Unit	
2140B1A	2140B1A	0.14	Beartooth Unit	
2140B1B	2140B1B	0.30	Beartooth Unit	
2140B1B1	2140B1B1	0.03	Beartooth Unit	
2140B1B2	2140B1B2	0.07	Beartooth Unit	
2140B1C	2140B1C	0.22	Beartooth Unit	
2140B2A	2140B2A	0.38	Beartooth Unit	
2140B3	2140B3	0.13	Beartooth Unit	
2140B4	2140B4	0.20	Beartooth Unit	
2140B5	Dispersed Campsite	0.08	Beartooth Unit	
2140B6	2140B6	0.37	Beartooth Unit	
2140B7	2140B7	0.24	Beartooth Unit	
2140B8	Dispersed Campsite	0.04	Beartooth Unit	
2140B9	Dispersed Campsite	0.09	Beartooth Unit	
2140D	North Picket Pin Lake	0.51	Beartooth Unit	
2140D1	South Picket Pin Lake East	0.30	Beartooth Unit	
2140D2	South Picket Pin Lake West	0.16	Beartooth Unit	
21778	Powerline Access	1.28	Beartooth Unit	

**Table C - 5. Actions Associated with Alternative B Modified**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
23081	BASS CREEK	0.23	Pryor Unit	
230811	230811	0.42	Pryor Unit	
2308C	Dispersed Camp Site	0.31	Pryor Unit	
2308K	Dispersed Camp Site	0.10	Pryor Unit	
234614	Old Richel Lodge	0.07	Beartooth Unit	
241410	241410	1.40	Beartooth Unit	
241410A	241410A	0.07	Beartooth Unit	
241410B	241410B	0.69	Beartooth Unit	
241411	241411	0.34	Beartooth Unit	
241413	241413	0.10	Beartooth Unit	
241414	241414	0.79	Beartooth Unit	
241417	241417	0.16	Beartooth Unit	
241418	241418	0.97	Beartooth Unit	
24145	24145	0.09	Beartooth Unit	
24146	24146	0.24	Beartooth Unit	
24148	Little Rocky Creek	0.61	Beartooth Unit	
24148A	24148A	0.10	Beartooth Unit	
24149	24149	0.09	Beartooth Unit	
24151	24151	0.06	Beartooth Unit	
24153	24153	0.17	Beartooth Unit	
24154	24154	0.18	Beartooth Unit	
24155	24155	0.18	Beartooth Unit	
24211	Dispersed Campsite	0.17	Beartooth Unit	
242110	Dispersed Campsite	0.04	Beartooth Unit	
242111	Dispersed Campsite	0.03	Beartooth Unit	
242112	Dispersed Campsite	0.03	Beartooth Unit	
242113	242113	0.16	Beartooth Unit	
242114	Dispersed Campsite	0.04	Beartooth Unit	
242115	242115	0.62	Beartooth Unit	
242115A	242115A	0.06	Beartooth Unit	
242115B	242115B	0.32	Beartooth Unit	
242115B1	242115B1	0.03	Beartooth Unit	
242115B2	242115B2	0.07	Beartooth Unit	
242115B3	242115B3	0.12	Beartooth Unit	
242115B4	242115B4	0.03	Beartooth Unit	
242116	Dispersed Campsite	0.04	Beartooth Unit	
242119	Dispersed Campsite	0.07	Beartooth Unit	
24212	Dispersed Campsite	0.04	Beartooth Unit	
242120	Dispersed Campsite	0.04	Beartooth Unit	
24213	Dispersed Campsite	0.06	Beartooth Unit	
24214	24214	0.17	Beartooth Unit	
24215	Dispersed Campsite	0.05	Beartooth Unit	
24216	Dispersed Campsite	0.04	Beartooth Unit	

Appendix C: Alternative Details by Route

**Table C - 5. Actions Associated with Alternative B Modified**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
24217	Dispersed Campsite	0.06	Beartooth Unit	
24218	Dispersed Campsite	0.06	Beartooth Unit	
24763	South Ingles Creek	0.34	Beartooth Unit	
284651	Rabbit Gulch Trailhead Spur	0.36	Beartooth Unit	
284652	Rabbit Gulch Trailhead Spur	0.14	Beartooth Unit	
21407	Dispersed Camping North	0.13	Beartooth Unit	
<b>Non-System Routes Proposed to Be Motorized System Trails</b>				
20182	20182	0.51	Pryor Unit	<b>Non-System Routes Converted to System Trails Open to All OHV's.</b> These non-system routes would be converted to system trails and designated for use by all motorized vehicles. This provides an opportunity for users to operate highway legal and off-highway vehicles that are not typically available on system roads, or at other locations on the District. This use is also consistent with the majority of BLM managed roads that are access or are adjacent to the Forest Service's Pryor Unit.
20918	Gypsum Creek	1.80	Pryor Unit	
20923	Bear Canyon Cutoff	0.27	Pryor Unit	
24922	24922	0.20	Pryor Unit	
24961	24961	0.33	Pryor Unit	
209113	209113	0.36	Pryor Unit	
209114	209114	0.12	Pryor Unit	
28503	28503	0.18	Pryor Unit	
2085AA	2085AA	0.30	Pryor Unit	
2850D	2850D	0.10	Pryor Unit	
<b>Non-System Routes Proposed to Be Non-Motorized System Trails</b>				
83	Dead Indian	0.80	Beartooth Unit	<b>Connect system road to system trail.</b> This small portion of non-system road would be converted to system trail to make a connection between the existing system trail and system road.
2142A	Dead Indian	0.08	Beartooth Unit	
21041	Trail 30	0.42	Beartooth Unit	
3A	Moon Lake	1.96	Beartooth Unit	<b>Need for system trail maintenance.</b> This non-system route is receiving sufficient use to warrant constructing drainage and other trail maintenance features on it. Construction of such features requires that the route be converted to system trail.
<b>Non-System Roads Proposed for Administrative Use Only</b>				
2071A1	Rock Creek Bone Yard	0.34	Beartooth Unit	<b>Administrative use.</b> These non-system roads would be converted to system routes. Use on these system roads or portions of system roads is proposed to be limited to administrative uses, i.e. use by Forest Service personnel, contractors, and permittees. These roads would not be designated for public use due to public hazards, and to help protect facilities and materials from vandalism.
2071B1	Timber Crest Spur	0.15	Beartooth Unit	
2071B2	Timber Crest Rec Residence	0.09	Beartooth Unit	
20952	20952	0.43	Pryor Unit	
2144Z1	Spring Development	0.11	Pryor Unit	
21479A	Horse Pasture	0.64	Beartooth Unit	
21479B	Red Lodge Ski Area Storage	0.07	Beartooth Unit	

**Table C - 5. Actions Associated with Alternative B Modified**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
21479C	Red Lodge Mtn. Comm. Site	0.07	Beartooth Unit	
21479D	Ski Area Pond North Side	0.47	Beartooth Unit	
21479D1	Ski Area Spur	0.04	Beartooth Unit	
21479E	Ski Area Pond South Side	0.36	Beartooth Unit	
23089	Trapper Cabin	0.16	Pryor Unit	
234621	Lions Camp Water system	0.05	Beartooth Unit	
241418A	241418A	0.53	Beartooth Unit	
25003	Range Development	0.13	Pryor Unit	
25004	Range Development	0.22	Pryor Unit	
25005	Range Development	0.20	Pryor Unit	
25006	Range Development	0.53	Pryor Unit	
2846J1	Mountain View Mine Spur	0.33	Beartooth Unit	
2846J2	Mountain View Mine Spur	0.12	Beartooth Unit	
21415	Burnt Mountain	1.25	Beartooth Unit	
<b>System Roads Proposed for Administrative Use Only</b>				
2012	Piney Creek	0.51	Pryor Unit	<b>Administrative use.</b> Use on these system roads or portions of system roads is proposed to be limited to administrative uses, i.e. use by Forest Service personnel, contractors, and permittees. These roads would not be designated for public use due to public hazards, and to help protect facilities and materials from vandalism.
20121	20121	0.55	Pryor Unit	
2014	Benbow-Stillwater Rd	3.49	Beartooth Unit	
2073	Stevens Draw	1.45	Pryor Unit	
2073E	2073E	1.75	Pryor Unit	
2085U	Gooseberry Hollow	0.30	Pryor Unit	
2092D	2092D	0.30	Pryor Unit	
2094	Cave Ridge	1.40	Pryor Unit	
2095	Bainbridge Loop	1.75	Pryor Unit	
2102	North Fork Sage Creek	1.68	Pryor Unit	
21403	Picket Pin Ranch	0.46	Beartooth Unit	
21411	21411	0.81	Beartooth Unit	
2144B	Sage Creek Water System	0.33	Pryor Unit	
2478	Nichols Creek	1.94	Beartooth Unit	
2846D	Horseman Flat Spring	0.54	Beartooth Unit	
2846E	2846E	0.35	Beartooth Unit	

**Table C - 5. Actions Associated with Alternative B Modified**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
2846F	Horseman Flat Northwest	0.50	Beartooth Unit	
<b>System Roads Proposed to be Motorized System Trail</b>				
2011	King Trail	3.62	Pryor Unit	<b>System Routes added to System Trails Open to All OHV's.</b> These system roads would be system trails and designated for use by all motorized vehicles. This provides an opportunity for users to operate non-highway legal and off-highway vehicles on system trails. This use is also consistent with the majority of BLM managed roads that are access or are adjacent to the Forest Service's Pryor Unit.
2013	Graham Trail	2.70	Pryor Unit	
2018	Inferno Canyon	2.78	Pryor Unit	
2091F	Red Pryor Ice	1.16	Pryor Unit	
2095A	2095A	1.41	Pryor Unit	
2088	Shriver Peak Road	4.06	Pryor Unit	
2091	Red Pryor Divide	8.15	Pryor Unit	
2492	Bear Canyon	2.94	Pryor Unit	
2496	Miller Trail	2.24	Pryor Unit	
2814	Bear Canyon Ridge	2.35	Pryor Unit	
2850	Stockman Trail	10.41	Pryor Unit	
2096	Switchback	3.14	Pryor Unit	
2144	Sage Creek	0.42	Pryor Unit	<b>System Route converted to System Trail Open to Motor Vehicles 50" or less in width Contingent upon minimizing impacts to soil.</b> This segment system road would be converted to system trail and designated for use by motorized vehicles with a width of 50" or less. This provides a motorized trail access to the northern boundary of the Pryor Unit.
<b>System Roads Proposed to be Non-Motorized System Trails</b>				
2141C	Rankin Homestead	1.30	Beartooth Unit	<b>Connect system road to system trail.</b> This small portion of system road would be converted to system trail to make a connection between the existing system trail and system road.
2142	Meyers Creek/Lodgepole Road (from trailhead to system trail #83)	0.69	Beartooth Unit	
<b>Non-Motorized System Trails Proposed Changes in Types of Use</b>				
14	Red Lodge Creek	0.45	Beartooth Unit	<b>Mechanized use restricted.</b> Mechanized use of a portion of this trail is proposed to discourage mechanized intrusion into the wilderness.
<b>System Roads Not Proposed to Be Designated for Public Motorized Use</b>				
2002	2002	0.32	Pryor Unit	<b>Previously harvested; limited recreation value.</b> This segment of system road would not be designated for public motorized use because it does not provide a desirable dispersed vehicle camping opportunity.
2012	Piney Creek	1.85	Pryor Unit	<b>Parallel roads.</b> These system roads would not be designated for public motorized use because they provide access to the same locations as other parallel routes.
20911	20911	0.48	Pryor Unit	
20912	20912	0.15	Pryor Unit	
20913	20913	0.38	Pryor Unit	
2092B	2092B	0.44	Pryor Unit	
2097B	Beaverslide Cutoff	0.54	Pryor Unit	
2097C	Guard Station Cutoff	0.28	Pryor Unit	

**Table C - 5. Actions Associated with Alternative B Modified**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
2850B	2850b	0.75	Pryor Unit	
2016	East Of Bear Canyon	1.41	Pryor Unit	<b>Cultural resource concerns.</b> These system roads would not be designated for public motorized use to reduce the risk of potential impacts on cultural resources.
2085P	2085P	0.20	Pryor Unit	
2085R	2085r	0.70	Pryor Unit	
2091D	Red Pryor Spring	0.36	Pryor Unit	
2091H	Horse Haven	1.90	Pryor Unit	
2308B	Dryhead Loop	0.62	Pryor Unit	
2088	Shriver Peak Road	2.23	Pryor Unit	
2849F	2849F	0.20	Pryor Unit	
2073H	Dispersed Campsite	0.03	Pryor Unit	
21401A	Picket Pin Camp	0.39	Beartooth Unit	
21401B	Old Sawmill Spur	1.50	Beartooth Unit	
2073J	Old Timber Road	0.27	Pryor Unit	<b>Erosion concerns.</b> These roads or portions of roads would not be designated for public motorized use because of erosion concerns that would be difficult to mitigate.
2085A	Wyoming Creek Camp	0.48	Pryor Unit	<b>Water quality and cultural resource concerns.</b> These system roads would not be designated for public motorized use because there are documented adverse water quality impacts created by the route that would be difficult to mitigate and to reduce impacts to cultural resources.
2085S	2085S	0.30	Pryor Unit	<b>Route has naturally revegetated; no identified administration, protection, or utilization need.</b> These system roads would not be designated for public motorized use because they have already either completely or largely revegetated naturally and there is no reasonably foreseeable administrative, protection, or utilization need for them.
2091E	Bear Creek Spur	0.20	Pryor Unit	
2144F	2144F	0.09	Pryor Unit	
2144I	Dry Head Creek	1.00	Pryor Unit	
2085T	Mill Hollow	0.70	Pryor Unit	<b>No administration, protection, or utilization need.</b> The end portion of this system road would not be designated for public motorized use. This route does not provide a loop opportunity nor does it offer desirable dispersed vehicle camping. No reasonably foreseeable administrative, protection, or utilization need has been identified.
2085T1	Mill Hollow Cabin	0.29	Pryor Unit	<b>Reduce risk of facility vandalism.</b> This system road would not be designated for public motorized use to reduce the risk of facilities being vandalized. Typically these facilities are located at the end of relatively short routes that do not provide highly desirable dispersed vehicle camping opportunities.

Appendix C: Alternative Details by Route

**Table C - 5. Actions Associated with Alternative B Modified**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
2091B	Sandra Mine	0.20	Pryor Unit	<b>Mining reclamation, and health and safety.</b> This system road would not be designated for public motorized use because it dead end in a uranium mine site that is identified for reclamation. Dead end roads may encourage visitors to stop or camp in the vicinity which is undesirable from a health and safety standpoint due documented high radiation levels in the mine area. In addition, it is undesirable to have vehicle use in the area during and upon completion of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remediation. Vehicle use of the site (tread disturbance of soils) could adversely affect the remediation efforts.
2099	2099	0.59	Pryor Unit	<b>No identified administrative, protection, or utilization need.</b> These system roads would not be designated for public motorized use because they are not desirable for dispersed vehicle camping and there is no reasonably foreseeable administrative, protection, or utilization need for them.
23086	23086	0.58	Pryor Unit	
23087	23087	0.80	Pryor Unit	
23088	23088	0.52	Pryor Unit	
20731A	Old Timber Road	0.32	Pryor Unit	
2073A	Schwend Ranch Access	0.10	Pryor Unit	
2073F	Dispersed Campsite	0.22	Pryor Unit	
2092E	2092e	0.53	Pryor Unit	
2144J	Cabin And Spring	0.55	Pryor Unit	<b>No legal access.</b> The Forest Service has no legal access to these system roads. Per agency guidance associated with the 2005 Motorized Travel Rule, system roads without Forest Service legal access are not to be designated for public use.
2144G	Geodome Home	0.12	Pryor Unit	
2144H	Old Homestead	0.55	Pryor Unit	
24191	Old Bedford	0.72	Beartooth Unit	
2009	Line Creek	1.68	Beartooth Unit	<b>Concurrent system road as well as a non-motorized trail in the Forest Service inventory.</b> This proposal would remove the system road status in the inventory but keep this route as a non-motorized trail.
25001	25001	0.51	Pryor Unit	<b>Limited recreational opportunity.</b> These system roads would not be designated for public motorized use because they do not provide a desirable dispersed vehicle camping opportunity (i.e. located underneath powerlines, on steep terrain, or formerly cultivated farmland).
2308W	2308W	0.60	Pryor Unit	
<b>Contingent Designation</b>				
2014	Benbow-Stillwater Road	1.02	Beartooth Unit	<b>Designate for public motorized use Contingent upon attaining legal access.</b> These non-system and system roads would be system roads to provide public motorized access to existing developed trailheads.
20142	20142	0.42	Beartooth Unit	
20144	The Golf Course	0.48	Beartooth Unit	
20144B	Stillwater Plateau Trailhead	0.55	Beartooth Unit	
2414	Benbow	0.08	Beartooth Unit	

**Table C - 5. Actions Associated with Alternative B Modified**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
21407	Dispered Camping North	0.13	Beartooth Unit	<b>Designate for public motorized use Contingent upon minimizing water quality, fisheries, and aquatics concerns.</b> This non-system routes would be converted to system roads to provide the public with quality motorized recreation and/or dispersed vehicle camping opportunities.
21415	Burnt Mountain	1.25	Beartooth Unit	<b>Administrative use Contingent upon minimizing water quality, fisheries, and aquatics concerns.</b> These non-system roads would be converted to system routes. Use on these system roads or portions of system roads is proposed to be limited to administrative uses, i.e. use by Forest Service personnel, contractors, and permittees.
2144	Sage Creek (Punch Bowl)	0.42	Pryor Unit	<b>Designate for public motorized use by Motor Vehicles 50" or less in width Contingent upon minimizing impacts to soil.</b> This segment of system road would be converted to system trail and designated for use by motorized vehicles with a width of 50" or less. This provides a motorized trail access to the northern boundary of the Pryor Unit.
<b>Season of Use Proposed Changes</b>				
24763	South Ingles Creek	0.34	Beartooth Unit	<b>April 15 – December 1.</b> These roads are accessed by West Fork of Rock Creek Road (Road #2071) and Silver Run Road (Road #2476) which has a season of use of April 15 to December 1. Consequently, a similar season of use is proposed for these roads.
20713	20713	0.14	Beartooth Unit	
20713A	20713A	0.04	Beartooth Unit	
20713B	20713B	0.03	Beartooth Unit	
20713C	20713C	0.09	Beartooth Unit	
207110	207110	0.06	Beartooth Unit	
2010	Palisades Campground	0.40	Beartooth Unit	<b>May 15 – September 30.</b> These campgrounds are currently gated at their entrance to help protect facilities from damage and vandalism during the portions of fall, winter, and spring when the campgrounds are not in use. The roads behind these gates are proposed to have a season of use consistent with closure of the gates.
2010A	Palisades Campground East Loop	0.07	Beartooth Unit	
2071C	Basin Creek Campground	0.40	Beartooth Unit	
2071D	Cascade Campground East Loop	0.20	Beartooth Unit	
2071G	Cascade Campground West Loop	0.37	Beartooth Unit	
20721	Lower Pine Grove Campground	0.04	Beartooth Unit	
2072A	Pine Grove Campground	0.43	Beartooth Unit	
2072A1	Pine Grove CG South Loop	0.24	Beartooth Unit	
2072B	Pine Grove North Loop	0.37	Beartooth Unit	
2072C	Emerald Lake Inlet	0.20	Beartooth Unit	
2072D	Emerald Lake South	0.34	Beartooth	

Appendix C: Alternative Details by Route

**Table C - 5. Actions Associated with Alternative B Modified**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
	Loop		Unit	
2177D	Jimmy Joe Campground	0.95	Beartooth Unit	
2379B	Sheridan Campground	0.27	Beartooth Unit	
2400A	Woodbine CG Entrance Road	0.23	Beartooth Unit	
2400B	Woodbine CG First Loop Left	0.51	Beartooth Unit	
2400C	Woodbine CG Second Loop Left	0.18	Beartooth Unit	
2400D	Woodbine CG First Loop Right	0.32	Beartooth Unit	
2400E	Woodbine CG Second Loop Right	0.20	Beartooth Unit	
2421B	Limber Pine Campground	0.34	Beartooth Unit	
2421D	Greenough Lake Campground	0.55	Beartooth Unit	
2141	Red Lodge Creek	2.50	Beartooth Unit	<p><b>May 15 - March 8.</b> This season of use is proposed to minimize damage to the roads from motor vehicle use during spring breakup. The Forest Service invested money in re-routing a portion of this road and is seeking to protect that investment. Season of use dates are based on Snotel Site data in the vicinity of the Beartooth front range.</p>
21416	Pole Road	0.19	Beartooth Unit	
2011	King Trail	3.62	Pryor Unit	<p><b>May 15 - April 15.</b> This season of use is being proposed to minimize road damage (rutting, braiding, head-cutting) from motor vehicle use when roads are typically moist due to ground thawing and snow melting. (See Appendix F)</p>
2018	Inferno Canyon	2.78	Pryor Unit	
20182	20182	0.51	Pryor Unit	
2088	Shriver Peak Road	4.06	Pryor Unit	
2091	Red Pryor Divide	8.15	Pryor Unit	
209113	209113	0.36	Pryor Unit	
209114	209114	0.12	Pryor Unit	
2091F	Red Pryor Ice	0.86	Pryor Unit	
2092	Commissary Ridge	3.75	Pryor Unit	
2092C	2092C	0.95	Pryor Unit	
2093	Island Ridge	1.60	Pryor Unit	
2095A	2095A	1.41	Pryor Unit	
2308	Pryor Mountain Road	8.31	Pryor Unit	
2308A	Big Ice Cave Campground	0.12	Pryor Unit	
2308K	Dispersed Camp Site	0.10	Pryor Unit	
2850	Stockman Trail	6.14	Pryor Unit	
28503	28503	0.18	Pryor Unit	
2850D	2850D	0.10	Pryor Unit	

**Table C - 5. Actions Associated with Alternative B Modified**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale	
2002	2002	0.10	Pryor Unit	<b>June 15 - December 15.</b> This season of use is being proposed to minimize road damage (rutting, braiding, head-cutting) from motor vehicle use when roads are typically moist due to ground thawing and snow melting. (See Appendix F)	
2002A	2002A	1.15	Pryor Unit		
2002A1	2002A1	0.20	Pryor Unit		
2073	Stevens Draw	2.00	Pryor Unit		
2073H	Dispersed Campsite	0.15	Pryor Unit		
2097	Beaverslide	2.38	Pryor Unit		
20972	Roberts Bench	0.59	Pryor Unit		
2097A	Guard Station Green Cabin	0.15	Pryor Unit		
2104	Tie Flats	1.44	Pryor Unit		
2104A	2104A	0.30	Pryor Unit		
2144	Sage Creek	4.42	Pryor Unit		
2308	Pryor Mountain Road	2.15	Pryor Unit		
22	Lodgepole	1.66	Beartooth Unit		<b>June 15 - December 1.</b> This season of use is being proposed to minimize impacts to critical wildlife winter range and moose calving disturbance.
27	Meyers Creek	4.53	Beartooth Unit		
<b>Routes Proposed for Mixed Use</b>					
2002	2002	0.10	Pryor Unit	<b>These routes would be designated for use by all motorized vehicles.</b> This provides an opportunity for users to operate highway legal and off-highway vehicles that are not typically available on system roads, or at other locations on the District. This use is also consistent with the majority of BLM managed roads that access or are adjacent to the Forest Service’s Pryor Unit.	
2002A	2002A	1.15	Pryor Unit		
2002A1	2002A1	0.20	Pryor Unit		
2073	Stevens Draw	2.00	Pryor Unit		
2073H	Dispersed Campsite	0.15	Pryor Unit		
2085	Crooked Creek	1.27	Pryor Unit		
2091	Red Pryor Divide	1.89	Pryor Unit		
2091A	Red Pryor	0.80	Pryor Unit		
2091G	2091G	0.60	Pryor Unit		
2097	Beaverslide	2.58	Pryor Unit		
20972	Roberts Bench	0.59	Pryor Unit		
2097A	Guard Station Green Cabin	0.15	Pryor Unit		
2104	Tie Flats	1.44	Pryor Unit		
2104A	2104A	0.30	Pryor Unit		
2140	Picket Pin	10.43	Beartooth Unit		
21401	Old Sawmill Road	0.68	Beartooth Unit		
21404	Dispersed Camping North	0.20	Beartooth Unit		
21405	Castle Creek Overlook	0.14	Beartooth Unit		
21406	Dispersed Camping South	0.41	Beartooth Unit		
21407	Dispersed Camping North	0.13	Beartooth Unit		
2140B	Iron Mountain	3.80	Beartooth Unit		
2140B1	2140B1	0.38	Beartooth Unit		

**Appendix C: Alternative Details by Route**

**Table C - 5. Actions Associated with Alternative B Modified**

Route #	Route Name	Length (Miles)	Geographic Area	Alternative B – Specific Rationale
2140B10	2140B10	0.98	Beartooth Unit	
2140B10A	2140B10A	0.15	Beartooth Unit	
2140B11	2140B11	0.24	Beartooth Unit	
2140B1A	2140B1A	0.14	Beartooth Unit	
2140B1B	2140B1B	0.30	Beartooth Unit	
2140B1B1	2140B1B1	0.03	Beartooth Unit	
2140B1B2	2140B1B2	0.07	Beartooth Unit	
2140B1C	2140B1C	0.22	Beartooth Unit	
2140B2	2140B2	0.94	Beartooth Unit	
2140B2A	2140B2A	0.38	Beartooth Unit	
2140B3	2140B3	0.13	Beartooth Unit	
2140B4	2140B4	0.20	Beartooth Unit	
2140B5	Dispersed Campsite	0.08	Beartooth Unit	
2140B6	2140B6	0.37	Beartooth Unit	
2140B7	2140B7	0.24	Beartooth Unit	
2140B8	Dispersed Campsite	0.04	Beartooth Unit	
2140B9	Dispersed Campsite	0.09	Beartooth Unit	
2140D	North Picket Pin Lake	0.51	Beartooth Unit	
2140D1	South Picket Pin Lake East	0.30	Beartooth Unit	
2140D2	South Picket Pin Lake West	0.16	Beartooth Unit	
2144	Sage Creek	4.00	Pryor Unit	
2308	Pryor Mountain Road	0.84	Pryor Unit	
230811	230811	0.42	Pryor Unit	
2308C	Dispersed Camp Site	0.31	Pryor Unit	
2415	Benbow Jeep Trail	7.54	Beartooth Unit	
2849	Burnt Timber Ridge	4.08	Pryor Unit	

- End of Appendix C -

# Appendix D: Dispersed Vehicle Camping

The following outlines allowable dispersed vehicle camping under each alternative.

## D.1 ALTERNATIVE A AND NO ACTION

Under Alternative A and No Action, access to dispersed vehicle camping would be allowed within 300 feet of all designated system roads and motorized trails on the District.

## D.2 ALTERNATIVE C

Alternative C would not allow the use of motor vehicles within a specified distance of designated motorized routes solely for the purposes of dispersed vehicle camping. However, parking would be allowed within one vehicle length from the edge of system roads and motorized trails.

## D.3 ALTERNATIVE B AND B MODIFIED

Along the Main Fork Rock Creek road, the goal is to continue to provide dispersed vehicle camping while not allowing further dispersed site establishment. Current use has been evaluated and is generally acceptable. Water quality, cultural, and aesthetic resource concerns exist with expansion of dispersed vehicle camping site establishment and recurring use. Elements of Alternative B and B Modified address these concerns.

Under Alternative B and B Modified, access to dispersed vehicle camping would be allowed within 300 feet of all designated system roads and motorized trails on the District, except along system road #2421 Main Fork of Rock Creek. Along the Main Fork Rock Creek, dispersed vehicle camping would be allowed on or within a vehicle's length from the edge of designated spurs off system road #2421.

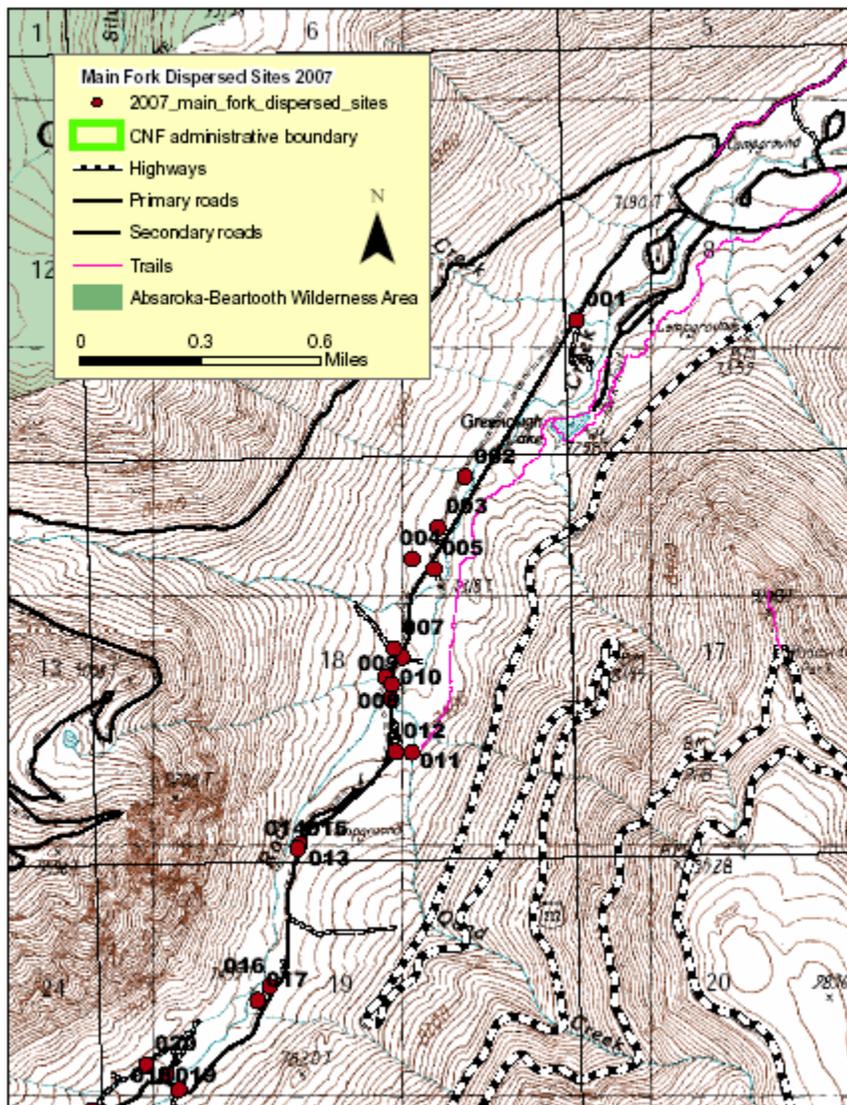
Figures D-1 through D-3 display currently used dispersed sites. There are about 30 dispersed camp areas with over 170 fire pits along the Main Fork Rock Creek road #2421. The following Table outlines areas or portions of areas that would not be open for public use due to water quality and cultural resource concerns under Alternative B and B Modified. The location identifier in the Table can be cross-referenced to its location in Figures D-1 through D-3.

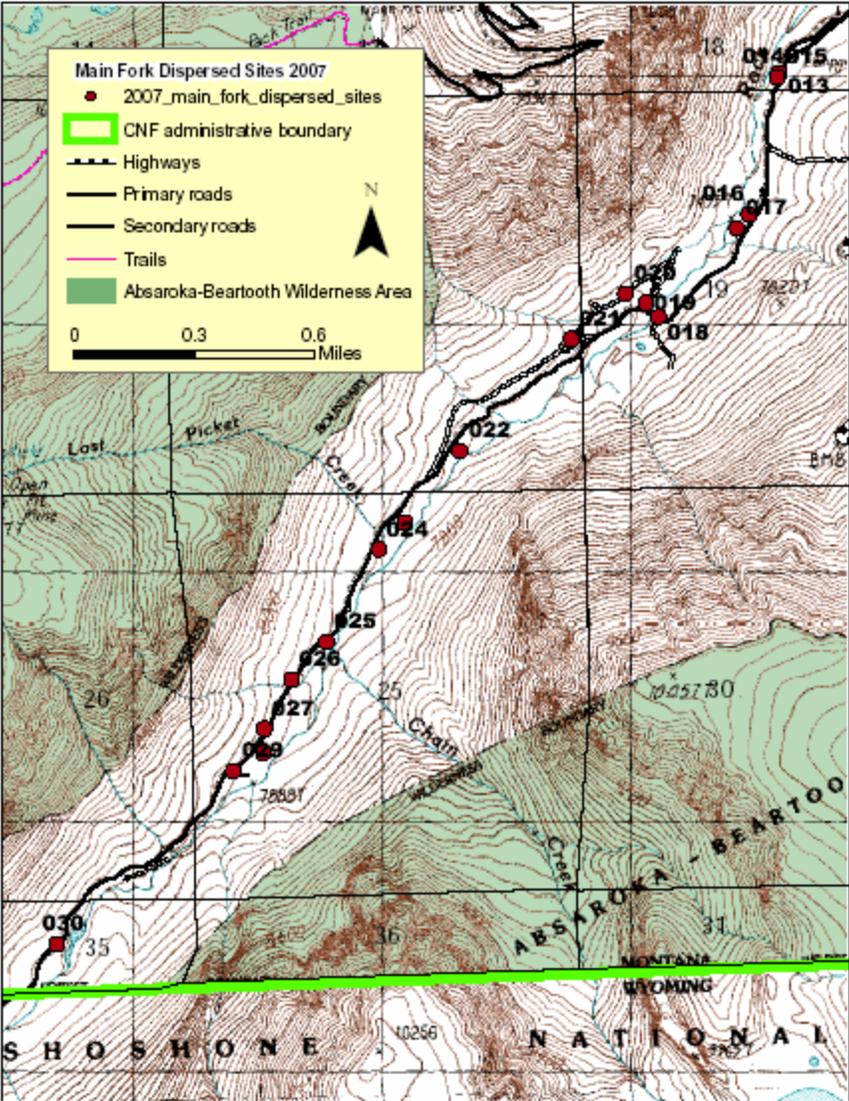
Also under Alternative B and B Modified, access to dispersed vehicle camping along the West Fork Rock Creek Road #2071 would continue to be allowed within 300 feet of all designated system roads and motorized trails. However, per Forest Plan direction, there would be a 100 foot dispersed vehicle camping prohibition from the West Fork Rock Creek live streams.

Appendix D: Dispersed Vehicle Camping

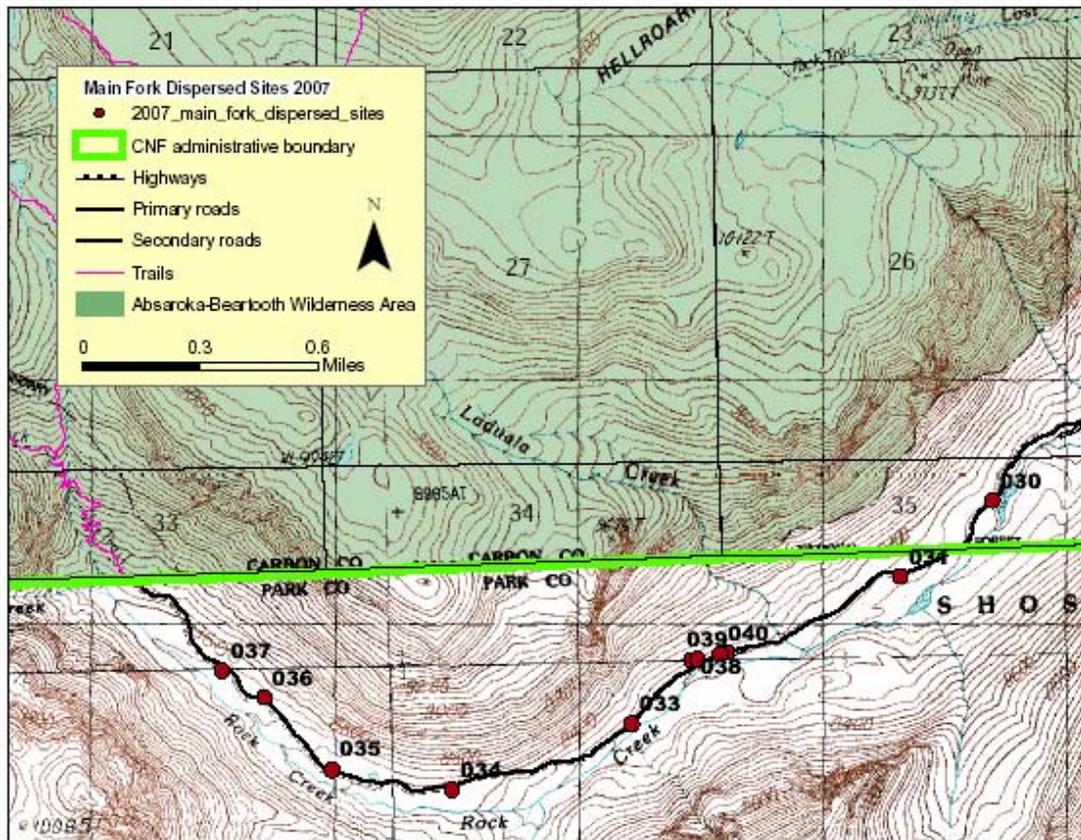
**Table D-1. Main Fork Rock Creek Dispersed Campsites Proposed for Closure - Alternative B and B Modified**

Location Identifier	Alternative B and B Modified Dispersed Vehicle Campsites Proposed for Closure
001	0.4 mi. from Hellroaring jct. 14 sites #24211 and 24211A. Close 24211A due to resource damage to riparian will close 5 sites.
004	1.2 miles from Hellroaring jct. 16 sites above #2421. Close all 16 sites due to cultural resource concerns. . Two entry points.
009	1.7 mi. from Hellroaring jct. 1 site between #2421 and creek, 70 linear feet of heavy bank erosion on outside of meander, Close site.
024	4.2 mi. from Hellroaring jct. 2 sites #242117 between #2421 and creek, recorded site, close 2 sites due to cultural resources
025	4.5 mi. from Hellroaring jct. 2 sites between #2421 and creek, recorded site, close 2 sites due to cultural resources
029	5.4 mi from Hellroaring jct. 7 sites #24119 and #24119A between #2421 and creek, close one site at jct. #24119/24119A for sediment transport to creek, close 2 sites and road entering North end of #242119A for resource damage to riparian zone.





Appendix D: Dispersed Vehicle Camping



- End of Appendix D -

## Appendix E: Opportunities

Several opportunities for route maintenance, new construction, easements, improved route design, improved water and fisheries resource conditions, and other recreational plans were identified during collaboration meetings and public comments. Although the following opportunities are outside the scope of this analysis, they may be considered for further review, prioritization, and NEPA analysis.

### E.1 WATER RESOURCE OPPORTUNITIES

The following Table outlines opportunities to address water resource concerns.

Route ID	Miles	Watershed	Observations and Recommended Actions
RD2071	7.72	WF Rock Creek	The road segment past the asphalt has a number of drainage problems that route sediment to the West Fork. These include cross-drain culverts that route ditch drainage without adequate filter zones, and ditches that drain to tributary channel crossing sites or bridge crossing sites along the West Fork. One cross drain culvert inlet was completely buried. Roads and ditches are composed of material that is highly erodible. <b>Action: Reconstruction.</b>
RD207111	0.05	WF Rock Creek	Access road to dispersed campsite. Drainage from road crosses dispersed site and down trail to stream. <b>Action: Obliterate.</b>
RD20714	0.07	WF Rock Creek	Road longer than shown on map- extended to access additional dispersed sites. Back half of road intercepts cross drainage from 2071 and routes to West Fork. Dispersed sites mostly hardened with boulders and not sediment sources. <b>Action: Obliterate.</b>
RD20719	0.21	WF Rock Creek	Access road to three dispersed campsites. Drainage from dispersed sites and bank impacts at stream access points are sediment sources. Road is not a problem. <b>Action: Stabilize bank or close site.</b>
RD2073F	0.22	Sage Creek	Mostly vegetated with clover or duff covered. Steep but mostly stable. Old cross-drains mostly functional. Short segments of surface flow and erosion. Some recent sign of motorized use as trails continue up through junction with rd 23087 and possibly to rd 2308. Old wooden culvert at bottom near junction with rd 2073 is plugged and adjacent spring flows across road and down fillslope. <b>Action: Obliterate.</b>
RD2073H	0.17	Sage Creek	Flat and semi-vegetated. Road accesses spring site and crosses small stream. Logs and bare soil indicate motorized vehicles get stuck in soft soil adjacent to stream. Dispersed campsite in middle of road on opposite side of stream. Road/trail continues beyond campsite. Could keep open for access to spring and dispersed campsite, but terminate and install barrier before stream crossing. <b>Action: Provide access for dispersed site, but close at spring channel and obliterate beyond.</b>
RD2073J	0.27	Sage Creek	Deeply entrenched to the point where very high investment would be needed to correct. <b>Action: Obliterate.</b>
RD2085A	0.43	Wyoming Creek	Mostly bare two-track contributes surface flow and sediment to Wyoming Creek and intercepts streamflow for approximately 50'. <b>Action: Obliterate.</b>

Route ID	Miles	Watershed	Observations and Recommended Actions
RD2085L	0.43	Bridge Hollow	Road vegetated but within Red Waffle Fire burn area and immediately adjacent to highly unstable channel due to ongoing post-fire hydrologic processes. <b>Action: Close until Red Waffle Fire landscape stabilizes.</b>  Fisheries: Bridge Hollow is a tributary to Crooked Creek, Crooked Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD2085M	1.14	Demijohn Hollow	Road has sparse vegetation and is within Red Waffle Fire burn area. North end of road is adjacent to highly unstable channel due to ongoing post-fire hydrologic processes. <b>Action: Close until Red Waffle Fire landscape stabilizes.</b>  Fisheries: Demijohn Hollow is a tributary to Crooked Creek. Crooked Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD2085U	0.43	Gooseberry Hollow	Road vegetated but within Red Waffle Fire burn area and immediately adjacent to highly unstable channel due to ongoing post-fire hydrologic processes. Road is used by firewood cutters which have removed logs placed in channel for BAER treatments. <b>Action: Close until Red Waffle Fire landscape stabilizes.</b>  Fisheries: Gooseberry hollow is a tributary to Crooked Creek. Crooked Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD2097C	0.28	Sage Creek	Alternate route to cabin mentioned under Road 2097A. Mostly unvegetated with native gravel/sand surface. Crosses a number of wet seep areas. <b>Action: Obliterate and rehabilitate wetland.</b>
RD21401A	0.39	Picket Pin Cr.	Moderate WQ impacts from old road that cuts across perennial tributary. Partial old log crossing present. Tributary flows down road and into adjacent wetland. Beyond, unvegetated road is adjacent to wet overflow channel for 100's of feet and occasionally drains to channel. Road may be longer than appears on map. <b>Action: Obliterate.</b>  Fisheries: Picket Pin Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD21401B	1.48	Picket Pin Cr.	Ford of same perennial tributary crossed by 21401A. Steep approach on southside. Both approaches route road drainage to stream. <b>Action: Obliterate.</b>  Fisheries: Picket Pin Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD21407	0.13	Picket Pin Cr.	Moderate WQ impacts at well developed dispersed campsite: bare soil, access trail to and across stream. ATV traffic across stream. <b>Action: Reconstruct.</b>  Fisheries: Picket Pin Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD21417 /18/19	0.87	West Fork Red Lodge Creek	These spur roads are deeply rutted from past runoff events and contribute flow and sediment to the south side ditch of RD2141 which is subsequently routed to the perennial tributary channel in SWNE section 11. <b>Action: Obliterate.</b>

Route ID	Miles	Watershed	Observations and Recommended Actions
RD241412	0.09	Benbow Rd spurs	Road has been extended by ATV traffic and now fords a perennial stream. Fine textured soils easily routed to stream, although currently little road drainage to stream. Potential for impacts to increase. Excessive, but localized bank trampling by livestock. <b>Action: Obliterate.</b>  Fisheries: Little Rocky Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD241413	0.14	Benbow Rd spur	Road parallels stream with three dispersed campsites along route. No real impacts from road but dispersed campsite impacts stream. Localized grazing impacts along streambanks. <b>Action: Maintain.</b>  Fisheries: Little Rocky Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD241419	0.06	Benbow Rd spur	This route provides access to the Benbow Mine and parallels Little Rocky Creek near its headwaters. This route is on a steep hillside comprised of loose unconsolidated material, immediately upslope of the stream course. This route has high potential for impacting aquatic habitat and sensitive species. <b>Action: Obliterate.</b>  Fisheries: Little Rocky Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD24141A	0.15	Benbow Rd spur	Similar to 241413, except turnaround and one dispersed campsite very close to stream. <b>Action: Obliterate.</b>  Fisheries: Little Rocky Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD24141C	0.06	Benbow Rd spur	Road crosses perennial stream, but approaches are short and flat. Minor water quality impacts. <b>Action: Obliterate.</b>  Fisheries: Little Rocky Creek contains genetically pure Yellowstone cutthroat trout. This opportunity is a high priority for protecting sensitive species occupied habitat.
RD2421	4	Rock Creek	Very minor impacts from road at crossing sites. The main impacts along this road are from some of the dispersed campsites along Rock Creek. Some sites have developed at sensitive points along the channel- outside bends where stream access trails and high stream flows combine to destabilize stream banks and cause significant bank erosion. Closing and rehabilitating dispersed sites at sensitive stream/bank locations. <b>Action: Maintain.</b>
RD24219	0.15	Rock Creek	Long sustained steep grade without adequate drainage. Gulley erosion occurred as a result of 2006 Beartooth Hwy flood event. Routes sediment to Rock Creek during high intensity rain events. <b>Action: Obliterate.</b>
RD242119A	0.15	Rock Creek	Road routes flow and sediment from 2421 to two dispersed sites and stream. Road at end is a large mudhole and difficult for vehicles to navigate without causing deeper ruts. <b>Action: Obliterate.</b>
RD2421C	0.19	Rock Creek	M-K Campground. Road is stable with good drainage. Erosion problems at steep stream access points at a couple campsites along stream. These are very steep and unstable terrace slopes. A solution may be to build wood or rock steps at one or two locations where stream-side area is naturally hardened. This issue occurs at other dispersed campsites along Rock Creek. <b>Action: Stabilize bank.</b>

Route ID	Miles	Watershed	Observations and Recommended Actions
RD2478	1.94	Nichols Creek-tributary to WF Rock Creek	This entire road has drainage problems and the surrounding geology produces soils that are highly erodible. Two crossings of perennial flow- one mainstem and one tributary. Both have long sustained, poorly drained upslope approaches that route significant fines to stream system. Sediment is also routed to the mainstem at a couple cross drains and low points in the road system where filter zones are inadequate. One of these is just below the junction with WF Rock Creek RD2071. Most drainage structures (cross drain dips) are only partially functioning at best. The road is entrenched in places and therefore difficult, if not impossible, to install cross drain structures. Old cross drains near bottom do not have adequate filter distance and likely routed significant sediment to the stream for years after installation. Significant road maintenance will be required to keep this road on the system, even if the road is closed yearlong and gated. <b>Action: Reconstruct portions to standard and obliterate entrenched portions.</b>
TR22	1.66	Lodgepole Creek	Evaluated the trail to just beyond where the stream changes from ephemeral to intermittent (~1 mi.). 70' trail approach on north side of lower ford routes water and sediment to crossing, but WQ overall impacts are minimal. Trail crosses two seeps from NE slope also with minimal impact. Last seep appears to be origin of flow in drainage. Except for two short trail segments (~100') of steep grade and loose soil, and one short segment (~50') of seasonally wet trail tread, the trail is stable and partially vegetated. Some localized grazing impacts at lower ford crossing. This trail has now been reconstructed after the Derby Fire and will require monitoring to ensure drainage features function properly. <b>Action: Maintain and monitor.</b>

## E.2 RECREATION OPPORTUNITIES

- Consider securing an easement to Stillwater Plateau Trailhead.
- Consider moving Stillwater Plateau Trailhead to avoid marshy area and address access.
- Consider a Recreation Management Plan for the Benbow area, including a parking/unloading area for trailers (ATV and horse), camping area with a dispersed feel, and more looping trails.
- Consider a loop in the middle of the Benbow trail.
- Consider a day use area in Benbow for families
- Consider a trail system to connect the Benbow area to the Iron Mountain or Picket Pin.
- Consider a new non-motorized trail from Picket Pin Road to Initial Creek Campground.
- Park City Recreation Association is interested in entering into an agreement / cost share / grant / adopt a trail with the Forest Service to help with parking areas, signing, etc. They have resources such as heavy equipment to help with turnaround/parking areas. The Association and Backcountry Horseman represented at the collaboration meetings are interesting in promoting tread lightly concepts and educating riders / operators from tearing up areas, etc.
- Consider making Silver Run Trails one way only.
- Consider motorized interpretative spur destinations and loops related to western culture and heritage, or other points of interest.
- The Billings Motorcycle Club offered to adopt Trails 22 and 27 under the Adopt a Trail Program.
- Use volunteers to help post and maintain the route markers. Implement an educational campaign (through media, signs, volunteers) to disseminate travel rules and the agency's intention to enforce them.

- Consider a trail system for non-motorized users from Sage Creek Campground.
- Consider more hiking opportunities near Palisades Campground and work with groups to develop better trail systems map.
- Consider trail planning proposals for Red Lodge, Red Lodge Creek, and Lily Pad Trails.
- Consider better signage and public information about poor camping opportunities at Lake Mary.
- Consider temporary closures (i.e. 24 months) at specific sites in Wilderness alpine and lake areas.

### E.3 MAINTENANCE OPPORTUNITIES

- Consider diverting the spillway overflow from the Red Reservoir (Pryor Mountain Road between Big Ice Cave and Dryhead Overlook) to flow through the road culvert and not down the road.
- If the Pryor Mountain Wild Horse Territory northwest buck and rail fence is rebuilt, road equipment may need to be brought in to construct an effective cattleguard / gate for vehicles. That might be an opportunity to improve the road immediately northwest of the fence by ditching and building up the roadbed.
- Consider culvert installation at the junction with route #2092 and #2093.
- Consider replacing wooden cattleguards on #2092, #2093 and #2094.
- Consider drainage repairs for roads #2492 and #2814.
- Consider repairing drainage problems on the Stockman Trail (2850) section, between the junctions with 28507 and 28505.
- Consider repairing road #2097-Beaverslide.
- Consider spot surfacing isolated areas across the District.

### E.4 ROUTE DECOMMISSIONING OPPORTUNITIES

The following is a list of routes which are candidates for decommissioning in the future. Prior to ground disturbance, appropriate NEPA analysis would be conducted.

System Roads		
Route Number	Route Name	Segment Length
2002	2002	0.32
2009	LINE CREEK	1.68
2012	PINEY CREEK	1.85
2016	EAST OF BEAR CANYON	1.41
20731A	OLD TIMBER ROAD	0.32
2073A	SCHWEND RANCH ACCESS	0.10

System Roads		
Route Number	Route Name	Segment Length
2073F	DISPERSED CAMPSITE	0.22
2073H	DISPERSED CAMPSITE	0.03
2073J	OLD TIMBER ROAD	0.27
2085A	WYOMING CREEK CAMP	0.48
2085P	2085P	0.20
2085R	2085R	0.70

System Roads		
Route Number	Route Name	Segment Length
2085S	2085S	0.30
2085T	MILL HOLLOW	0.70
2085T1	MILL HOLLOW CABIN	0.29
2088	SHRIVER PEAK ROAD	2.23
20911	20911	0.48
20912	20912	0.15
20913	20913	0.38
2091B	SANDRA MINE	0.20
2091D	RED PRYOR SPRING	0.36
2091E	BEAR CREEK SPUR	0.20
2091H	HORSE HAVEN	1.90
2092B	2092B	0.44
2092E	2092E	0.53
2097B	BEAVERSLIDE CUTOFF	0.54
2097C	GUARD STATION CUTOFF	0.28
2099	2099	0.59
21401A	PICKET PIN CAMP	0.39
21401B	OLD SAWMILL SPUR	1.50
2144F	2144F	0.09
2144G	GEODOME HOME	0.12
2144H	OLD HOMESTEAD	0.55
2144I	DRY HEAD CREEK	1.00
2144J	CABIN AND SPRING	0.55
23086	23086	0.58
23087	23087	0.80
23088	23088	0.52
2308B	DRYHEAD LOOP	0.62
2308W	2308W	0.60
24191	OLD BEDFORD	0.72
25001	25001	0.51
2849F	2849F	0.20
2850B	2850B	0.75

Non-System Roads		
Route Number	Route Name	Segment Length
20071	BEAR CREEK OFF METESEE TRAIL	1.92
20072	SOUTH FORK GROVE CREEK	2.06
20073	OFF GOLD CREEK NORTH	0.35
20074	SOUTH FORK GROVE CR SPRING	0.88
20075	GOLD CREEK	0.54
20083	ROBERTSON DRAW SPUR	0.46
20084	NORTH FORK LINE CREEK	0.67
20084A	NORTH FORK LINE CREEK SPUR	1.16
20094	20094	0.14
20101	PALISADES CAMP (CCC)	0.34
20101A	20101A	0.23
20101B	20101B	0.14
20101C	20101C	0.36
2010B	OLD CCC ROAD	0.38
20121A	20121A	0.06
20121B	20121B	0.21
20122	20122	0.37
20134	20134	0.35
20141	20141	0.06
20143	20143	0.15
20144A	STILLWATER PLATEAU CUTOFF	0.39
20161	20161	0.15
20162	20162	2.99
20181	20181	0.16
20711	20711	0.25
207111	207111	0.05
20718	20718	0.12
20718A	20718A	0.06
20719	20719	0.21
20723	POWERLINE ACCESS	0.57
20726	20726	0.14
20731	SCHWEND GATE	0.61
2073I	2073I	0.23
20853	TIBBS HOLLOW	0.34

Non-System Roads		
Route Number	Route Name	Segment Length
20854	CLEAR CUT GULCH	0.23
2085AA	2085AA	0.85
2085P1	2085P1	0.13
2085P2	2085P2	0.15
2085T2	2085T2	0.15
209110	209110	0.24
209111	209111	0.10
209112	209112	0.10
209112A	209112A	0.10
209116	209116	0.37
209117	209117	0.28
209118	209118	0.15
209118A	209118A	0.10
20916A	OLD GLORY MINE SPUR	0.25
20916B	OLD GLORY MINE SPUR	0.10
20916C	OLD GLORY MINE SPUR	0.15
2091A1	SANDRA MINE SPUR	0.21
2091A1A	SANDRA MINE SPUR	0.11
2091D1	2091D1	0.10
2091H1	2091H1	0.17
2091H2	2091H2	0.57
2091H3	2091H3	1.10
2091H4	2091H4	0.56
2091T	MURDI RESERVOIR	2.75
20951	20951	2.66
20951A	20951A	0.33
2095A1	RESERVOIR	0.36
20971A	20971A	0.08
20972	ROBERTS BENCH	0.63
2104A1	2104A1	0.25
2122	CAMPSITE	0.17
2123	BEARTOOTH HWY GRAVEL PIT	0.10
2126	2126	0.52
2140G	2140G	0.65

Non-System Roads		
Route Number	Route Name	Segment Length
2140G1	2140G1	0.05
214110	214110	0.04
21412	21412	0.11
21413	21413	0.42
21413A	21413A	0.09
21413B	21413B	0.04
21413C	21413C	0.03
21414	21414	0.03
21415A	21415A	0.03
21415B	21415B	0.53
21415C	21415C	0.20
21415D	21415D	0.11
21417	21417	0.12
21418	21418	0.31
21419	SOUTH EATEN	0.06
2141B	2141B	0.33
2141B1	2141B1	0.08
2141B2	2141B2	0.05
21422	SHEEP CREEK	0.68
21423	DALLAS SPRING	0.34
21423A	ROBINSON SPRING	0.29
2142A	DEAD INDIAN	0.29
2144D1	POWERLINE ACCESS SPUR	0.14
2144D2	POWERLINE CUTOFF	0.12
2144H1	OLD HOMESTEAD SPUR	0.23
21778A	NORTHSIDE RIVER	2.94
230811	230811	0.19
23082	23082	0.11
23083	23083	0.14
23084	23084	0.14
2308B1	DRYHEAD LOOP CUTOFF 2	0.11
2308W1	2308W1	0.17
234611	234611	0.03
234612	234612	0.23

Non-System Roads		
Route Number	Route Name	Segment Length
234613	234613	0.14
24005	NYE TRAIL HEAD	0.07
241412	241412	0.09
241415	241415	0.24
241415A	241415A	0.06
241416	BENBOW MILL SITE	0.25
241416A	BENBOW LOWER MILL SITE	0.21
241416B	BENBOW MIDDLE MILL SITE	0.16
241419	BENBOW MINE	0.06
241420	241420	0.24
241421	241421	0.15
241422	241422	0.06
241423	241423	0.05
24142A	24142A	0.09
24142B	24142B	0.03
2414A	POWERLINE ACCESS	0.17
24192	24192	0.25
24193	24193	0.94
242117	DISPERSED CAMPSITE	0.03
242118	DISPERSED CAMPSITE	0.05
242119A	DISPERSED CAMPSITE	0.14
24211A	DISPERSED CAMPSITE	0.06
24219	DISPERSED CAMPSITE	0.23
24781	24781	0.04
24782	NICHOLS CREEK SPUR	0.39
24782A	NICHOLS CREEK SPUR A	0.14
24783	24783	0.06

Non-System Roads		
Route Number	Route Name	Segment Length
24784	24784	0.10
24785	24785	0.27
24786	24786	0.02
249111	249111	0.20
249131	249131	0.37
249132	249132	0.33
24914	OLIVER DRAW	2.04
24914A	OLIVER DRAW SPUR	0.29
24914B	OLIVER DRAW SPUR	0.17
24915	WILDCAT SPRING	0.52
24916	BOUNDARY DRAW	0.55
24921	24921	1.18
24924	24924	0.25
25002	RANGER CANYON TRAIL	0.37
25007	RANGE DEVELOPMENT	0.26
28461A	28461A	0.20
2846D1	2846D1	0.40
28501A	TIMBER CANYON	2.25
28502	28502	0.10
28504	28504	0.36
28504A	SHEEP RESERVOIR	0.72
28505	28505	0.40
28505A	28505A	0.25
28506	28506	0.05
28507	28507	0.41
2850E	INGRAM SPRING	0.17

- End of Appendix E -

# Appendix F: Season of Use Determination

Travel planning on the Beartooth District raised potential issues concerning motorized route impacts to soil, water quality and vegetation, specifically during spring snowmelt periods. Existing and potential impacts occur through displacement or rutting of saturated or soft road surfaces. Travel off-road to bypass snowdrifts or mudholes can impact adjacent soils with subsequent impacts to vegetation. Travel across route drainage features, e.g., water bars or rolling dips, when they are most susceptible to damage, can impair the function of these structures and thereby concentrate route drainage down the route, delivering water and sediment to stream crossing sites. One management option to address these issues involves restricting motorized travel during the period when route surfaces and adjacent soils are most susceptible to impact. In other words, assigning a season of use (SOU) for periods when the risk of impact from motorized travel would be low.

A season of use that restricts travel during late spring or early fall was deemed unnecessary. The risk of impact was considered low during these periods because infiltration during rain events is generally high as the ground has either thawed or has not yet frozen. Additionally, the time frame in late fall between when precipitation turns to snow and when the ground becomes frozen is generally very short, unlike spring snowmelt, when the time frame between the beginning of snowmelt and complete ground thaw is generally much longer.

Determination of the period when soils are most susceptible to impact was problematic due to a lack of site-specific data. The next most scientific approach is to extrapolate data from nearby sites with similar elevation and latitude, and relatively long periods of record. Snowpack telemetry (SNOTEL) data, collected by the USDA Natural Resources Conservation Service (2007) meets these requirements.

## F.1 PRYOR MOUNTAINS

Fifteen SNOTEL sites around the Pryor Mountains were used for this analysis; seven are in Montana and eight are in Wyoming. Additional sites are located within this same area, but they were not included in the overall dataset because 1) they were outside the elevation range of the Pryor Mountains (6600' - 8900'), 2) the period of record was short and extrapolation of data from adjacent sites was not highly correlated, and 3) sites locations were outside of an acceptable range of latitude. Table F-1 provides site description information for the sites used in this analysis.

**Table F-1. SNOTEL Site Information**

NAME	STATE	FOREST	LATITUDE	ELEVATION	PERIOD OF RECORD <sup>1</sup> (SWE)	PERIOD OF RECORD <sup>2</sup> (temperature)
Placer Basin	MT	Gallatin	45.4167	8830	1981-2007	1991-2007*
Box Canyon	MT	Gallatin	45.2667	6670	1979-2007	1990-2007
Monument Peak	MT	Gallatin	45.2167	8850	1981-2007	1991-2007*
Cole Creek	MT	Custer	45.1833	7850	1975-2007	1992-2007*
Silver Run	MT	Custer	45.1500	6630	1977-1998	NA <sup>3</sup>
White Mill	MT	Gallatin	45.1167	8700	1974-2007	1990-2007
NE Entrance	MT	YNP	45.0000	7350	1967-2007	1985-2007
Wolverine	WY	Shoshone	44.8000	7650	1981-2007	1985-2007
Tie Creek	WY	Big Horn	44.8000	6870	1995-2007	1995-2007*

**Table F-1. SNOTEL Site Information**

NAME	STATE	FOREST	LATITUDE	ELEVATION	PERIOD OF RECORD <sup>1</sup> (SWE)	PERIOD OF RECORD <sup>2</sup> (temperature)
<b>Burgess Junction</b>	WY	Big Horn	44.7833	7880	1981, 1983-2007	1990-2007
<b>Sucker Creek</b>	WY	Big Horn	44.7167	8880	1979-2007	1991-2007*
<b>Dome Lake</b>	WY	Big Horn	44.5667	8880	1979-2007	1990-2007
<b>Big Goose</b>	WY	Big Horn	44.5667	7990	1995-2007	NA <sup>3</sup>
<b>Sylvan Road</b>	WY	Shoshone	44.4667	7120	1988-2007	1990-2007
<b>Sylvan Lake</b>	WY	Shoshone	44.4667	8420	1981-2007	1984-2007

<sup>1</sup>The period of record for the analysis was standardized at 1981-2007.

<sup>2</sup>The period of record for the analysis was standardized at 1990-2007, except for those sites with an asterisk.

<sup>3</sup>Not applicable. Period of record for this site is too short for analysis of temperature data.

Elevation and latitude are two site characteristics that are quantified, but only elevation was used as a predictor in this analysis. Latitude is known to affect snowmelt at a broad continental scale (Stewart, et al., 2004), but it may not be useful at the finer scale as in this analysis. Additional statistical analysis would help to determine if this variable would improve correlations. Other known site characteristics such as aspect, adjacent vegetation and topography cannot be quantified and therefore used for this data extrapolation effort. Additionally, variations in precipitation and climatic patterns between mountain ranges are acknowledged and likely add to the variability that cannot be explained by the regression analyses as described further in this narrative.

The date when routes and adjacent soil **begin** to become susceptible to excessive rutting or displacement was assumed to be the point in time when average daily temperature exceeded 0°C. As average daily temperature increases above freezing, the amount of time the snowpack is melting exceeds the time under which it is frozen. To establish this date, a three month period (usually 3/1-5/31) of average daily temperature data was averaged across the period of record for each SNOTEL site. This averaged data was then plotted over time to determine the date when average daily temperature reached 1°C. It is important to note that temperature sensors at most SNOTEL sites are located well above snow levels (16-18 feet above ground) and therefore do not reflect exact the temperature of the snowpack surface. The temperature at snowpack surfaces is generally cooler than at the sensor location, hence the start of snowmelt may be some short period later than the date when average daily temperature reaches 0°C. To account for this, the date when average daily temperature reached 1°C was used instead of 0°C.

Chart F-1 depicts this process for the Cole Creek site on the Custer N.F. The data indicates that April 14 is the date when average daily temperature reaches 1°C at the Cole Creek site. The  $R^2$  value is 0.89.  $R^2$ , otherwise referred to as the coefficient of determination, is the proportion of variability in a dataset that is accounted for by a statistical model. Using Cole Creek as an example, approximately 89 percent of the variation in temperature can be explained by the spring three month time period. The remaining 11 percent can be explained by inherent variability, or other unknown variables.

Chart F-1. Average Daily Temperature for the Cole Creek SNOTEL Site

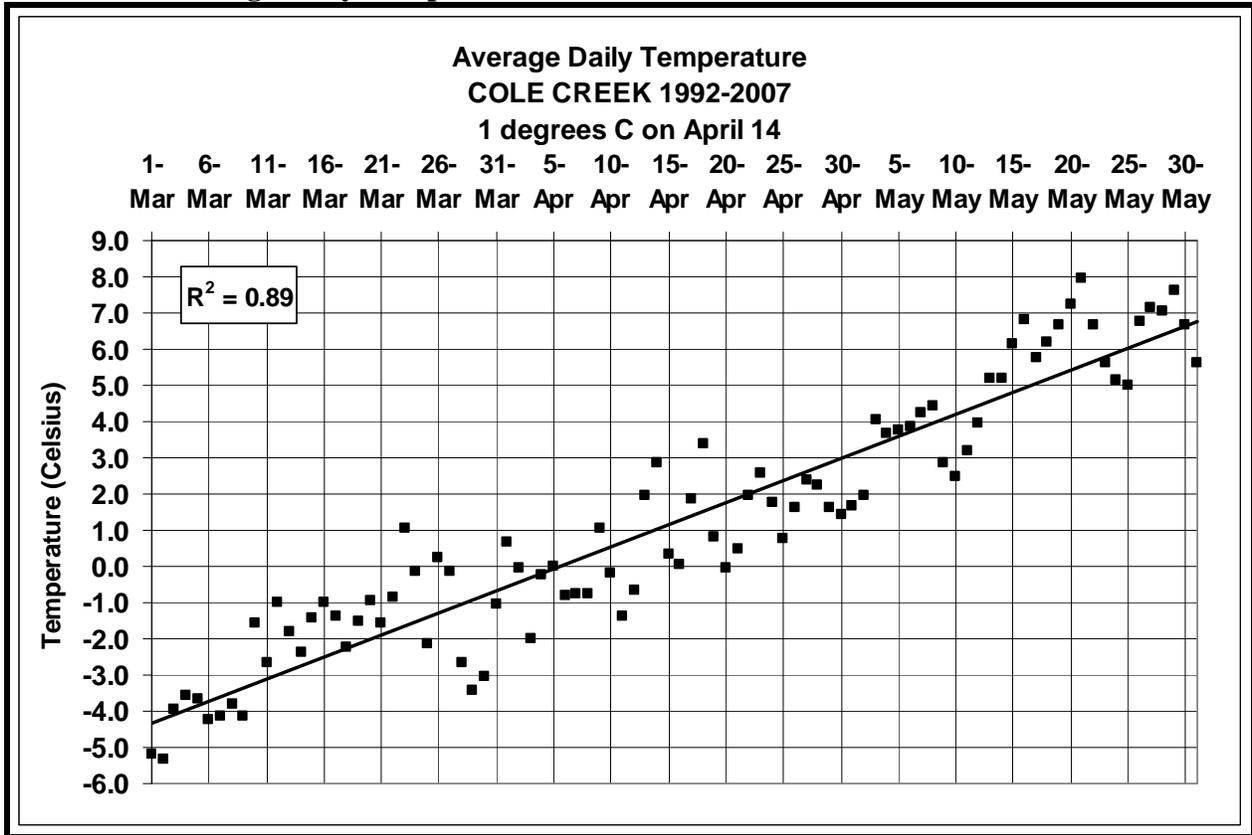


Table F-2 identifies the date when average daily temperature reached 1°C for the 13 SNOTEL sites.  $R^2$  values were all very good and are also shown in Table F-2. These dates were then plotted against the corresponding site elevation in order to develop a correlation to extrapolate the dataset to the Pryor Mountains. The  $R^2$  value for this correlation is relatively high at 0.84. Again, this means approximately 84 percent of the variation in the date that average daily temperature reached 1°C can be explained by elevation. The remaining 18 percent can be explained by inherent variability, or other variables in sites characteristics as discussed previously. Chart F-2 depicts this correlation as the date when **melt begins**.

**TABLE F-2. Date When Average Daily Temperature Reaches 1°C**

SITE	DATE WHEN AVERAGE DAILY TEMPERATURE REACHES 1°C	COEFFICIENT OF DETERMINATION - $R^2$
Placer Basin	May 6	0.93
Box Canyon	April 6	0.93
Monument Pk	May 1	0.94
Cole Ck	April 14	0.89
Silver Run	NA*	NA*
White Mill	April 30	0.94
NE Entrance	April 12	0.94
Wolverine	April 10	0.93
Tie Ck	April 10	0.87
Burgess Jct	April 23	0.92

**TABLE F-2. Date When Average Daily Temperature Reaches 1°C**

SITE	DATE WHEN AVERAGE DAILY TEMPERATURE REACHES 1°C	COEFFICIENT OF DETERMINATION - $R^2$
Sucker Ck	April 27	0.90
Dome Lk	April 27	0.91
Big Goose	NA*	NA*
Sylvan Rd	April 16	0.96
Sylvan Lk	April 28	0.94

\* Not available due to limited period of record.

As spring progresses, average daily temperature increases, causing more rapid snowmelt and thawing of frozen ground. With the excess amount of melt water, road surfaces/subsurfaces and adjacent soils become saturated. This is the point at which routes and adjacent soils are deemed the most susceptible to rutting and displacement. Only when the ground is completely thawed and excess water begins to infiltrate through the soil layers does susceptibility begin to decrease. Only when soil moistures drop to normal summer levels does the risk of rutting and displacement reach its lowest level. Soil moisture and soil temperature data is not available to determine this point in time for the Pryor Mountains. However, SNOTEL data can help define a starting point by providing an average date when snowpacks melt completely.

SNOTEL snowpack data is expressed as snow water equivalents (SWE) with units in inches of water. In other words, SWE is the depth of water generated by melting a column of snowpack. To begin this analysis, every year of record (between 1981 and 2007) for each individual site was reviewed to identify the date when SWE first reached zero. Significant spring storms that extended the date when SWE again reached zero were included, but only if the second date was within the normal range of dates for each individual site. An average date was then calculated for the site based on 27 years of data. This process was duplicated for all 15 sites. The results are provided in Table F-3. These average dates were then plotted against the corresponding site elevation in order to develop a correlation to extrapolate the site data to the Pryor Mountains. The  $R^2$  value for this correlation is moderate at 0.64. This means approximately 64 percent of the variation in the date when SWE drops to zero can be explained by elevation. The remaining 36 percent can be explained by inherent variability, or other variables in site characteristics as discussed previously. Chart F-2 depicts this correlation as the date **melt ends**.

## F.2 CONCLUSION

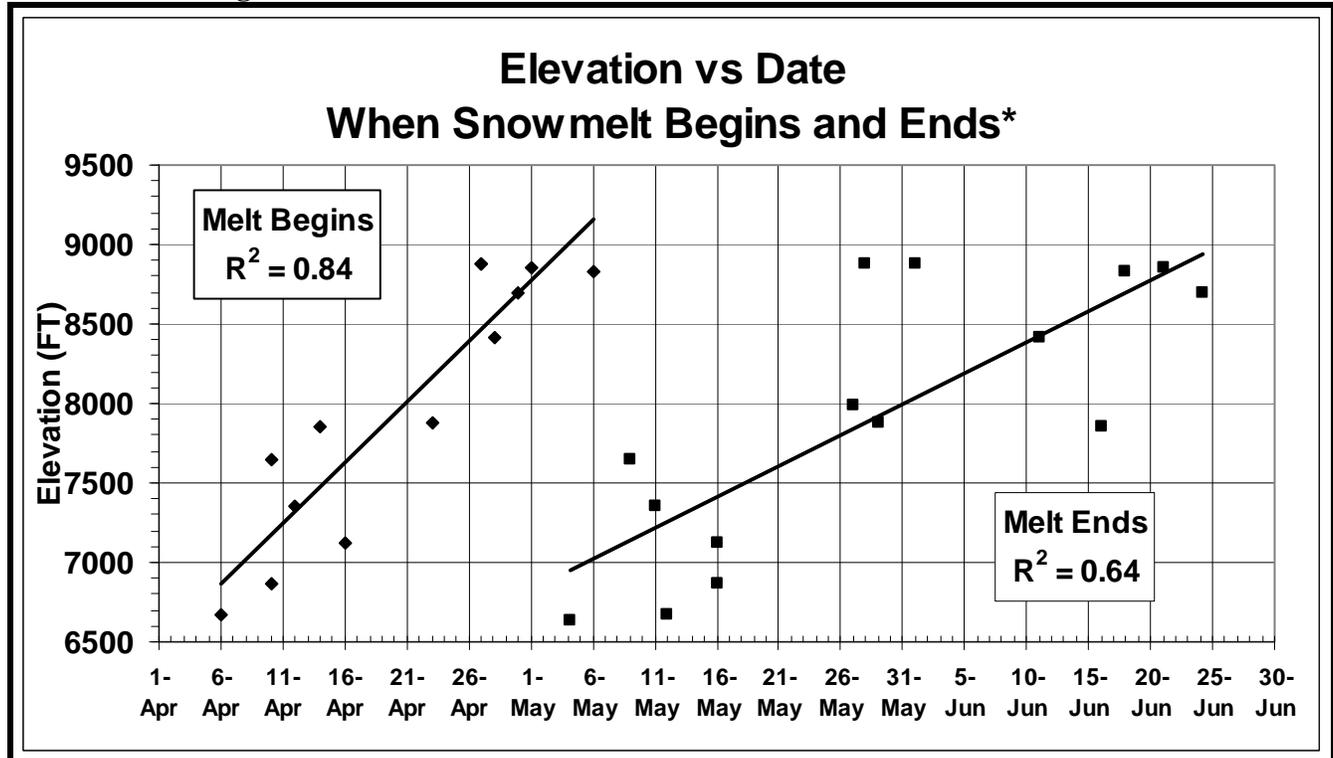
The Pryor Mountains were divided into four areas for the purpose of determining a SOU for motorized travel. Two areas have no SOU proposed. One area is at the north end of the unit where routes access private land. Historically, access to this private land has been allowed yearlong and the proposal is to continue this management. The other area encompasses most lower elevation routes across the unit including the south and west areas, and Crooked Creek Canyon and Commissary Ridge. Lower elevation areas generally have intermittent snowpack as melting occurs off and on throughout the winter. Two other areas have a SOU proposed. Both areas are at higher elevations than the areas with no proposed SOU. One area is the north and east portions of the unit. The other area encompasses higher elevations routes from Red Pryor to Big Pryor and further west.

TABLE F-3. Date When SWE Drops to Zero

Year	Placer Basin	Box Canyon	Monument Peak	Cole Creek	Silver Run*	White Mill	NE Entrance	Wolverine	Tie Creek*	Burgess Junction*	Sucker Creek	Dome Lake	Big Goose*	Sylvan Road*	Sylvan Lake
1981	6/26	5/14	6/20	6/9	5/15	6/21	5/16	5/1	<b>5/16</b>	5/19	5/29	5/29	<b>5/28</b>	<b>5/12</b>	6/8
1982	7/5	5/21	7/8	6/28	4/24	7/14	5/31	5/25	<b>5/21</b>	<b>6/2</b>	6/7	6/8	<b>6/6</b>	<b>5/28</b>	6/30
1983	7/5	5/22	6/25	6/29	5/13	6/27	5/27	5/29	<b>5/26</b>	6/8	6/16	6/17	<b>6/14</b>	<b>5/30</b>	6/23
1984	7/4	5/15	6/29	6/26	5/16	6/29	5/19	5/21	<b>5/27</b>	6/16	6/17	6/18	<b>6/15</b>	<b>5/25</b>	6/26
1985	5/29	5/2	6/10	5/26	4/18	6/22	5/3	5/5	<b>5/9</b>	5/23	5/16	5/16	<b>5/16</b>	<b>5/15</b>	5/28
1986	6/18	5/15	6/17	6/14	5/13	6/26	5/19	5/23	<b>5/18</b>	6/1	6/2	6/1	<b>5/31</b>	<b>5/26</b>	6/17
1987	6/6	4/23	6/2	5/29	4/22	5/18	4/25	4/28	<b>5/7</b>	5/13	5/7	5/12	<b>5/12</b>	<b>5/10</b>	5/10
1988	6/17	5/14	6/11	6/6	5/13	6/14	5/14	5/8	<b>5/16</b>	6/1	5/30	5/28	<b>5/27</b>	5/12	5/28
1989	6/29	5/7	6/20	6/10	5/1	6/22	5/10	5/1	<b>5/15</b>	5/19	5/19	5/27	<b>5/26</b>	5/15	6/13
1990	7/4	5/22	7/1	6/24	5/10	7/3	5/24	5/17	<b>5/21</b>	6/7	6/11	6/8	<b>6/6</b>	5/11	6/18
1991	6/30	5/28	6/27	6/26	5/18	6/24	5/25	5/20	<b>5/18</b>	6/4	6/9	6/1	<b>5/31</b>	5/24	6/16
1992	6/22	4/29	6/21	6/18	4/14	6/21	5/4	4/27	<b>5/7</b>	5/15	6/11	5/11	<b>5/11</b>	5/2	6/21
1993	6/20	5/12	6/26	6/19	5/1	6/23	5/15	5/10	<b>5/15</b>	5/27	5/17	5/27	<b>5/26</b>	5/15	6/19
1994	5/25	5/6	6/15	6/1	5/1	6/5	5/3	5/4	<b>5/8</b>	5/21	5/18	5/13	<b>5/13</b>	5/9	5/25
1995	6/26	5/13	7/7	7/10	5/15	7/5	5/18	5/18	5/24	5/15	6/23	6/23	<b>6/20</b>	5/23	6/28
1996	6/19	5/28	7/1	6/20	5/8	7/6	5/27	5/29	5/21	6/6	6/9	6/7	<b>6/5</b>	6/2	6/28
1997	6/17	5/15	6/24	6/11	5/7	7/6	5/18	5/17	5/19	6/4	6/8	6/3	<b>6/2</b>	5/20	6/8
1998	6/23	5/5	7/2	6/19	4/26	7/6	5/4	5/4	5/8	5/28	6/12	5/25	<b>5/24</b>	5/10	6/18
1999	6/20	5/20	6/29	6/17	<b>5/10</b>	7/1	5/21	5/17	5/24	6/7	6/10	6/6	6/2	5/25	6/25
2000	6/10	5/11	6/21	6/5	<b>5/9</b>	6/24	5/2	4/30	5/11	5/31	5/31	5/28	5/23	5/9	6/4
2001	5/26	5/6	6/20	6/21	<b>4/28</b>	6/18	5/2	5/1	5/8	5/18	5/15	5/15	5/13	5/9	6/18
2002	6/21	5/20	6/24	6/14	<b>5/4</b>	6/23	5/10	5/3	5/14	5/31	5/30	5/26	5/29	5/25	6/14
2003	6/15	5/21	6/19	6/27	<b>5/7</b>	6/30	5/15	5/15	5/19	6/8	6/10	5/30	5/29	5/21	6/9
2004	6/3	5/17	6/10	6/5	<b>4/23</b>	6/28	4/7	4/8	5/1	5/18	5/10	5/9	5/7	4/30	5/31
2005	6/20	5/13	6/18	6/21	<b>5/6</b>	6/24	4/27	5/2	5/16	5/28	6/11	6/1	5/27	5/7	5/26
2006	6/2	4/30	6/7	6/22	<b>4/23</b>	6/18	4/30	4/25	5/12	5/21	5/18	5/17	5/15	5/10	5/31
2007	6/10	4/28	5/29	6/10	<b>5/2</b>	6/13	4/24	4/24	5/11	6/10	6/10	5/22	5/23	4/30	5/23
<b>81-07 average</b>	<b>6/18</b>	<b>5/12</b>	<b>6/21</b>	<b>6/16</b>	<b>5/4</b>	<b>6/24</b>	<b>5/11</b>	<b>5/9</b>	<b>5/16</b>	<b>5/29</b>	<b>6/1</b>	<b>5/28</b>	<b>5/27</b>	<b>5/16</b>	<b>6/11</b>

\* A portion of the data for this site was extrapolated from adjacent sites because the period of record was less than 1981-2007. Extrapolated data in bold.

CHART F-2. Begin and End Snowmelt Dates



\* Beginning date corresponds to date when average daily temperature reaches 1°C. Ending date corresponds to date when SWE reaches zero inches. Refer to narrative for clarification.

The 8000 foot elevation zone was chosen as a starting point to extrapolate data from Chart F-2 for these higher elevation routes. Doing so provides a starting SOU date of May 31 and an ending date of April 21. Local observations indicate that the lower energy aspects of the north and east area of the Pryors hold snowpacks longer than the higher energy aspects of the southwest area of the unit. Also, due to these differences in aspects, soils take longer to dry out in the north and east areas as compared to the southwest area. Therefore, the SOU starting date for higher elevation routes on the southwest side was moved back to May 22. This date also accounts for public comments that requested the SOU to include Memorial Day weekend. The starting date for higher elevation routes, in the north and east areas, was moved forward to June 15. This date also accounts for BLM comments that requested a later SOU starting date for the Sykes Ridge area. The initial ending date of April 21 was moved back to April 15 to further reduce the risk of impacts from a high use period during the initial week of spring black bear hunting season.

### F.3 RED LODGE ROUTE 2141

A similar analysis was used to determine an appropriate SOU for the main route through the West Fork Red Lodge watershed. However, in this case the Burnt Mountain SNOTEL site was located within the watershed and adjacent to the route of concern. Average daily temperatures between February 1 and April 30 were evaluated for the years 2001 through 2007. The data indicates that on the average, average daily temperature reaches 1°C on March 8. The R<sup>2</sup> value is 0.73. SWE data for the years 2002 through 2007 suggests that on the average, snowpacks completely melt by May 1. Because of the north facing aspect of this watershed, the SOU beginning date was extended two weeks to provide additional drying time. Therefore, the SOU proposed for this route is 5/15 to 3/8.

## F.4 REFERENCES

USDA- NRCS. 2007. SNOTEL Data for sites on the Big Horn, Custer, and Gallatin National Forests and Yellowstone National Park. U.S. Department of Agriculture, Natural Resource and Conservation Service. [Online]. Available: <http://www3.wcc.nrcs.usda.gov/nwcc/sweavg.jsp?state=WY>, and <ftp://ftp.wcc.nrcs.usda.gov/data/snow/ads/mt/mt7100sn.html>.

Stewart, I.T., D.R. Cayan and M.D. Dettinger. 2004. Changes in snowmelt runoff timing in western North America under a 'business as usual' climate scenario. *Climate Change* 62: 217-232. Kluwer Academic Publishers. Netherlands.

M.Nienow  
Forest Hydrologist  
4/10/08

**- End of Appendix F -**

# Appendix G: Actions Outside the Scope of the Analysis

The following activities have been determined to be outside the scope of this analysis. The information provided is intended to provide the reader with an understanding of the rationale behind this determination.

## G.1 GAME RETRIEVAL

The District is not proposing to designate any motorized game retrieval. In a June 30, 2006 letter to Forest and Grassland Supervisors, the Regional Forester for Region One of the Forest Service, Gail Kimball, provided guidance that stated, “Travel off route for big game retrieval is not recommended and must have Regional Forester approval prior to initiating any proposals that consider off route use for this purpose”. No extraordinary circumstances have been identified that warrant proposing motorized cross-country game retrieval on the District, consequently designation of motorized big game retrieval is not being proposed. The use of non-motorized game carts for game retrieval would not be affected by this proposal, and use would continue to be allowed outside of designated Wilderness areas.

## G.2 EXEMPTIONS FOR ACCESSIBILITY

Special provisions aimed at providing people with disabilities motorized opportunities not available to all forest users have not been included in this proposal. In the comments and responses on the 2005 Motorized Travel Rule published on November 9, 2005 in the Federal Register, the agency states, “Under section 504 of the Rehabilitation Act of 1973, no person with a disability can be denied participation in a Federal program that is available to all other people solely because of his or her disability. In conformance with section 504, wheelchairs<sup>1</sup> are welcome on all National Forest System lands that are open to foot travel and are specifically exempt from the definition of motor vehicle in § 212.1 of the final rule, even if they are battery-powered. However, there is no legal requirement to allow people with disabilities to use OHVs or other motor vehicles on roads, trails, and areas closed to motor vehicle use because such an exemption could fundamentally alter the nature of the Forest Service’s travel management program (7 CFR 12e.103). Reasonable restrictions on motor vehicle use, applied consistently to everyone, are not discriminatory”. The proposal will provide reasonable access to all forest visitors.

## G.3 RIGHTS OF ACCESS

The 2005 Motorized Travel Rule states that, “In making designations pursuant to this subpart, the responsible official shall recognize: (1) Valid existing rights; and (2) The rights of use of National Forest System roads and National Forest System trails under § 212.6(b)” (36 CFR 212.55 (d)). While the subject of the rule is rights-of-way, the District has expanded this to include all authorizations issued for use of National Forest System lands within the District. In other words, nothing in this proposal is intended to alter authorizations for the use of roads and trails including, rights-of-way,

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<sup>1</sup> A wheelchair is, “a device designed solely for use by a mobility impaired person for locomotion that is suitable for use in an indoor pedestrian area” (ADA, Title V Section 507 (c)).

## **Appendix G: Actions Outside the Scope of the Analysis**

road special use permits, operating plans, or special use permits. For example, this proposal does not contain actions that would alter the Forest Service's commitment made in a road use permit authorizing a property owner to use National Forest System roads to access their property.

### **G.4 OVER-SNOW VEHICLES**

Over-snow vehicle (ex: snowmobile) use is not a part of this proposed action. The 2004 Beartooth District Travel Management Proposal included proposed changes in the restrictions on over-snow vehicle use. Public comments on over-snow use were limited in scope and general in nature. The majority asked that the restrictions not be modified to allow an additional 69,000 acres of over-snow vehicle use. The few other comments that addressed over-snow vehicles indicated that all public lands should be open to all types of motorized vehicles including snowmobiles, and that the analysis needs to evaluate different types of motorized use, including snowmobiles, separately. No comments requested specific areas for over-snow vehicle use. One comment suggested specific areas that should be closed to over-snow vehicle use, which included the Red Lodge Creek and Palisades areas; however it did not provide clear resource, cultural or social rationale for why these areas should be restricted.

The interdisciplinary team reviewed the existing snowmobile management direction in the Custer Forest Plan, the 2007 Lynx Decision, and information in the 1987 Beartooth Travel Plan. The team also reviewed current use and determined there were no specific resource issues with existing use. Based on this information, the interdisciplinary team recommended to the Responsible Official that over-snow vehicle use be dropped from the proposal, because there was no resource-related need for change from the existing use. The Responsible Official reviewed the situation and determined it was appropriate to drop over-snow use from the proposal. If an action alternative is selected, the 1986 Forest Plan, as amended, will be used as the foundation for regulating over-snow vehicle activities.

The public has indicated that better signing is needed along Highway 212 so that over-snow vehicle operators are aware of the boundaries of the Highway 212 corridor and do not inadvertently stray outside of the corridor. This action is outside the scope of this proposal, but Forest Service staff have noted this need and will consider this during future project planning and for potential grant requests.

### **G.5 DESIGNATED CROSS-COUNTRY MOTORIZED AREAS**

In a June 30, 2006 letter to Forest and Grassland Supervisors, the Regional Forester for Region One of the Forest Service provided guidance that stated, "Designated areas should have natural resource characteristics that are suitable for cross-country motor vehicle use or should be so significantly altered by past actions that motor vehicle use might be appropriate". The interdisciplinary team did not identify any areas suitable for motorized cross-country use on the Beartooth Ranger District based on this guidance. As a result, designated cross-country motorized areas are not being proposed as a part of this project.

There were two cross-country vehicle areas identified in the 1987 Travel Plan, often referred to as the Benbow and Iron Mountain cross-country areas. Commenters indicated that these areas currently exist and should continue to be available for cross-country vehicle use. However, cross-country vehicle use in these areas was eliminated with a 2001 Forest Order (Curriden, 2001) that eliminated cross-country vehicle travel on the Custer National Forest in response to the 2001 Tri-State OHV decision (Bosworth, 2001).

## **G.6 DECOMMISSION OR OBLITERATION OF ROUTES**

Through this analysis system roads and non-system routes may be identified for which there is no administrative, utilization (including recreation), or protection need. These roads and routes are candidates for future decommissioning or obliteration. Generally, they are not being proposed for decommissioning or obliteration as a part of this proposal. Any other proposal to decommission or obliterate other identified routes, including activities such as ripping and seeding, would require a separate decision.

## **G.7 CONSTRUCTION OF ROUTES**

Construction of new routes, reconstruction, and re-routing are not part of the decision to be made. Proposals for construction, re-construction, or re-routing would require a separate decision.

## **G.8 UPPER STILLWATER BASIN**

Upper Stillwater Basin portion of the Beartooth District travel management is not part of the decision to be made. The Custer and Gallatin National Forests have an agreement in which the Gallatin National Forest has the administrative lead for this area. The travel management for this area was recently addressed in the 2006 Gallatin National Forest Travel Plan EIS. It is consistent with the Custer Forest Plan and will not be addressed in this analysis.

**Appendix G: Actions Outside the Scope of the Analysis**

**- End of Appendix G -**

# Appendix H: Agency Letters

## H.1 INTRODUCTION

The agency comment letters received on the project in response to the DEIS were from the Environmental Protection Agency, USDI-Office of Environmental Policy and Compliance, and the State of Montana Department of Natural Resources and Conservation. These letters are included below.

## H.2 AGENCY LETTERS

*H.2.1 Environmental Protection Agency: Page H-2 to H-24*

*H.2.2 USDI-Office of Environmental Policy and Compliance: Page H-25*

*H.2.3 State of Montana Department of Natural Resources and Conservation: Page H-26*



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8, MONTANA OFFICE  
FEDERAL BUILDING, 301 S. PARK, DRAWER 10096  
HELENA, MONTANA 59626-0096

H-40

Ref: 8MO

November 5, 2007

Mr. Steve E. Williams, Forest Supervisor  
Attn: Doug Epperly, Project Coordinator  
Custer National Forest  
1310 Main Street  
Billings, MT 59105

Re: CEQ 20070409; Beartooth Travel Management Plan DEIS

Dear Mr. Williams:

The Environmental Protection Agency (EPA) Region VIII Montana Office has reviewed the Beartooth Travel Management Plan and Draft Environmental Impact Statement (DEIS) in accordance with EPA responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Section 309 of the Clean Air Act directs EPA to review and comment in writing on the environmental impacts of any major federal agency action. EPA's comments include a rating of both the environmental impact of the proposed action and the adequacy of the NEPA document.

We appreciate the Custer National Forest's and Beartooth Ranger District's effort in preparing a Travel Management Plan and DEIS for the Beartooth area. We support travel planning efforts intended to better manage and control recreational uses and reduce environmental impacts of such uses on National Forests. Public recreational demand and access has increased significantly in recent years, and motorized uses and roads in many cases have caused increased damage to aquatic and terrestrial resources. We have been concerned about environmental effects of roads and motorized uses, particularly the increasing use of off-highway vehicles (OHVs) and all-terrain vehicles (ATVs) that occur away from roads and trails, including steep slopes, fragile soils, wet meadows, and around water bodies. Newer motorized vehicles such as trail bikes, all terrain vehicles (ATVs) and snowmobiles can access areas much further into the Forest than they could historically, forcing wildlife onto smaller and smaller patches of habitat, fragmenting habitat and migration corridors, and adversely affecting wildlife security, and causing soil erosion and adverse effects to water quality, aquatic habitat and fisheries, and spreading weeds.

It is important that motorized activities be properly managed and controlled so that they occur in a manner and location that is consistent with protection of the environment and other resources in order to sustain and protect the environment, other resources, and ecosystems for use by future generations. The challenge is in providing adequate access for land management and public recreation while protecting and restoring aquatic and terrestrial ecosystems. Where

there are conflicts between access and recreational use and long-term protection of resources and ecosystems, we believe resource/ecosystem protection must be given priority to sustain and protect resources and ecosystems for use by future generations. We very much support proposed efforts to restrict motorized vehicle use to designated roads and trails.

The Beartooth Travel Plan action alternatives all appear to be improvements to no action, however, we consider Alternative C to include more environmentally protective features than action Alternatives A or B (i.e., protection of streams, water quality, fisheries, wildlife, etc.). Alternative C would have the highest potential reduction in miles of road erosion and runoff (152 miles vs. 100 miles with Alternative B and 38 miles with Alternative A); lowest mileage of roads with high erosion hazard (135 miles vs. 170 miles with Alternative B and 219 miles with Alternative A); least miles of roads designated for public motorized use (198 miles vs. 211 miles with Alternative B and 225 miles with Alternative A); lowest road density (0.27 mi/mi<sup>2</sup> vs. 0.32 mi/mi<sup>2</sup> with Alternative B and 0.40 mi/mi<sup>2</sup> with Alternative A); lowest weed susceptible acres within the designated road corridor (2,211 acres vs. 11,029 acres with Alternative B and 15,290 acres with Alternative A); and least potential to impact sensitive Yellowstone cutthroat trout and their habitat.

The EPA supports selection of Alternative C, although we recognize that there are many user groups and interests, and social, economic and environmental effects and trade-offs that need to be considered during decision-making, and the preferred alternative, Alternative B, may be more socially acceptable than Alternative C. We do consider Alternative B to be preferable to No action and Alternative A, since it includes more features to reduce adverse environmental effects. We have the greatest environmental concerns with No Action and Alternative A due to increased risk of adverse effects on watersheds, water quality, fisheries and wildlife habitat and security with these alternatives.

We still believe, however, that the preferred alternative, should be modified to include further reductions in motorized routes, particularly routes in areas with high hazard (erosive) soils. The DEIS states that Alternative B would include 15.9 miles of public motor vehicle use and 49.3 miles of OHV use on high hazard rating soils. Alternative C, however, includes no such routes on high hazard soils. We believe additional reductions in motor vehicle and OHV route designations for high hazard soils should be included in the preferred alternative. At the very least improved rationale for having motor vehicle routes and OHV routes on high hazard soils with Alternative B should be provided that justifies designating motorized routes on high hazard soils.

We are also concerned about the effects of roads on aquatic and terrestrial ecosystems, and the minimal funding and resources available to properly maintain roads and keep them in fair to good condition to minimize erosion and water quality and fisheries impacts. The DEIS indicates that only a small percentage of roads on the District receive annual maintenance. We believe there is a need to address road conditions that contribute to degraded water quality and aquatic habitat, particularly to address road related water quality impairment in 303(d) listed streams. Reductions in sediment delivery from roads as well as improvements in road drainage

and reductions in road density are important for improving watershed conditions and aquatic health in area streams.

Adequate budgets need to be provided to maintain the roads remaining on the road system within the analysis area. We believe the preferred alternative should include a greater commitment of resources to road maintenance to reduce risks to water quality and fisheries. We encourage the Forest Service to incorporate as much road rehabilitation and road closure and decommissioning as possible in its preferred alternative, particularly removal of road stream crossings, and obliteration of roads causing resource damages.

We also do not support the addition of new routes to the road system (e.g., #21407, #241412, #21401A, #21401B), especially routes with high risk of erosion and water quality impacts, when funding for road maintenance is already inadequate to address resource impacts from existing roads and nearby campsites. New routes and increased demands for road maintenance should not be placed on the system when road maintenance is already inadequate and overburdened. The EPA believes road and trail networks should be limited to those that can be adequately maintained within agency budgets and capabilities, and roads which cannot be properly maintained should be decommissioned.

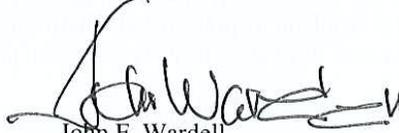
Efforts to improve road conditions and reduce sediment delivery from roads should be an important element of the Travel Plan. The Plan should be consistent with Total Maximum Daily Loads (TMDLs) and water quality restoration strategies that are being developed to restore water quality and beneficial use support in impaired 303(d)-listed waters in the area (e.g., Rock Creek, Bad Canyon Creek, Crooked Creek, West Red Lodge Creek). The Custer National Forest, Beartooth Ranger District should coordinate their travel management planning with the Montana DEQ as well as EPA TMDL staff to assure travel plan consistency with TMDLs and water quality restoration plans being prepared by MDEQ.

The EPA's more detailed questions, comments, and concerns regarding the analysis, documentation, or potential environmental impacts of the Beartooth Travel Management Plan DEIS are included in the enclosure with this letter. Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action and alternatives in an EIS, the Beartooth Travel Management Plan DEIS has been rated as Category EC-2 (Environmental Concerns - Insufficient Information). A summary of EPA's DEIS rating criteria is attached.

The EPA's environmental concerns regard potential effects to water quality, fisheries, wildlife and other resources from roads and motorized uses. We support Alternative C, since it is more protective of streams, water quality, fisheries, wildlife, although we recognize that there are many user groups and interests, and social, economic and environmental effects and trade-offs that need to be considered, and the preferred alternative, Alternative B, may be more socially acceptable than Alternative C. We recommend that the preferred alternative include modifications to reduce roads in high hazard areas; avoid adding new roads that overburden the already inadequate road maintenance budget; and include a greater commitment of resources to road maintenance and road decommissioning to reduce risks to water quality and fisheries.

If you have any questions you may contact Mr. Steve Potts of my staff in Helena at (406) 447-5022 or in Missoula at (406) 329-3313, or via e-mail at [potts.stephen@epa.gov](mailto:potts.stephen@epa.gov). Thank you for your willingness to consider our comments at this stage of the process, and we hope they will be useful to you.

Sincerely,



John F. Wardell  
Director  
Montana Office

Enclosures

cc: Larry Svoboda/Julia Johnson, EPA, 8EPR-N, Denver  
Mark Kelley/Robert Ray, MDEQ, Helena

## EPA Comments on the Draft EIS for the Beartooth Ranger District Travel Management Plan

### Brief Project Overview:

The Beartooth Ranger District of the Custer National Forest proposes to designate routes for public motorized use, including specification of type of vehicle and season of use for each route, and to change management of pack and saddle stock on certain trails. The purpose of the project is to: 1) identify routes for public motorized use on the District, 2) provide for a variety of motorized and non-motorized opportunities, 3) minimize impacts on natural and cultural resources, and 4) have enforceable travel management guidelines. Travel planning has not been done on the District since 1987. The Beartooth Ranger District is situated in south-central Montana in the Beartooth and Pryor Mountains, and consists of 512,943 acres on the Beartooth Unit and 74,932 acres on the Pryor Unit, which is approximately thirty miles east of the Beartooth Unit. Over-snow vehicle use is not part of the decision to be made. Three action alternatives and no action are evaluated in the DEIS.

The No Action Alternative consists of designation of the existing system roads and vehicle types and seasons of use that are currently in force on the District. No action is different from Alternative A (existing condition) which proposes to designate both existing system and non-system routes. The No Action Alternative largely reflects the set of system roads identified in the 1987 Travel Plan along with modifications that have been made since 1987.

Alternative A is the existing condition in which the recreation experience in slightly less than three-quarters of the Pryor Unit would be primarily motorized use. Recreationist's experiences in the Beartooth Unit are not expected to be appreciably different than the No Action Alternative, including pack and saddle stock users and motorcyclists. Alternative A would designate public motorized use on the majority of routes (system and non-system) identified during the 1999-2000 inventory. The only roads that would not be designated for public motorized use under this alternative would be those identified for administrative uses and those that the Forest Service does not have a legal right-of-way for use. The majority of non-designated routes (32 of 34 miles) represent routes for which the Forest Service has no legal right-of-way for public access (access is only via private lands). This alternative largely reflects the motorized road and trail elements of an alternative submitted by the Custer Partnership, a coalition of area groups interested in this project, including Families for Outdoor Recreation, Treasure State ATV, and other individuals.

Alternative B addresses key resource concerns, including soil, water, wildlife habitat, and cultural resources. This alternative identifies slightly less motorized routes than no action for designation, but more than Alternative C. In Alternative B, approximately two-thirds of the Pryor Unit would be in motorized settings. In addition, several seasonal, high-elevation loops would be available for their use during the June 15-April 15 season of use for the Pryor Unit. Hikers and horseback riders would find large areas or "enclaves" in the Pryor Unit with very little motorized use, including portions of Big Pryor Mountain, Punchbowl, and Lost Water

Canyon. These non-motorized areas would expand dramatically in size during the time of year when motorized use is prohibited at higher elevations (April 15-June 15). Recreationists could expect to take day-long hikes or horseback rides without hearing or seeing OHVs during the April 15-June 15 period; but may have a little more difficulty finding this type of experience the remainder of the year. Pack and saddle stock users could still expect to find many opportunities for riding and camping in the Beartooth Unit, and could expect to use the Meyers Creek and Lodgepole Creek areas without hearing or seeing motorized use. Motorcyclists could expect to have opportunities to ride in both the Beartooth and Pryor units, but would not find opportunities for single track motorcycle experiences. The preferred alternative is Alternative B.

Alternative C designates very little motorize use in the Pryor Unit. Approximately half of the unit would be in motorized settings and half in non-motorized settings. Recreationists could expect that some effort would be required to walk or ride to certain destinations – for example Bear Canyon, King Canyon, and the Punchbowl area – and certain activities, such as hunting, could be expected to require more effort to find game. There would be multiple opportunities to walk or ride a horse or mountain bike without seeing or hearing OHVs on adjacent ridges. You might encounter the occasional motorized vehicle being utilized for weed spraying or grazing permit administration on roads and trails identified for administrative uses. Recreationists accustomed to dispersed vehicle camping would find less opportunities and fewer desirable sites for this activity since fewer motorized routes would be designated and access to dispersed vehicle camping sites within 300 feet of motorized routes would not be allowed under this alternative.

**Comments:**

1. Thank you for providing Summary Tables and Matrices including Tables 2-2 thorough 2-7 summarizing alternatives, particularly the status of roads and trails in the action alternatives; Table 2-8 with comparisons of environmental effects of alternatives; Table 2-9 identifying forest plan monitoring items; as well as clear, large, maps of the alternatives. The summary tables, alternatives descriptions and maps help clarify alternatives, define issues, and provide a basis of choice among alternatives for the decisionmaker and the public as directed by the CEQ's regulations for implementing NEPA (40 CFR 1502.14).

**Alternatives**

2. Forest Travel Plans are critical elements in the management of National Forests, providing direction to manage road and trail networks for public recreation and conduct of land management activities. We have been concerned about environmental effects of roads and motorized uses, particularly increasing use of off-highway vehicles (OHVs) and all-terrain vehicles (ATVs) that occur away from roads and trails, including steep slopes, fragile soils, wet meadows, and around water bodies. Public recreational demand and access has increased significantly in recent years, and motorized uses and roads in many cases have caused increased damage to aquatic and terrestrial resources. Newer motorized vehicles such as trail bikes, all terrain vehicles (ATVs) and snowmobiles can

access areas much further into the Forest than they could historically, forcing wildlife onto smaller and smaller patches of habitat, fragmenting habitat and migration corridors, and adversely affecting wildlife security, and causing soil erosion and adverse effects to water quality, aquatic habitat and fisheries, and spreading weeds.

The challenge is in providing adequate access for land management and public recreation while protecting and restoring aquatic and terrestrial ecosystems. Where there are conflicts between access and recreational use and long-term protection of resources and ecosystems, we believe resource/ecosystem protection must be given priority to sustain and protect resources and ecosystems for use by future generations.

The condition of forest road networks and environmental effects of motorized travel are a significant concern of EPA in regard to land management. Roads and motorized uses have affected wildlife behavior and life history functions and habitat quality and quantity; caused habitat loss and fragmentation and wildlife mortality from vehicle-wildlife collisions; increased erosion resulting in sediment transport to water; degraded watershed conditions, water quality, aquatic habitat, and fisheries; increased dust emissions to air; spread weeds; and otherwise disrupted and degraded terrestrial and aquatic environments.

Roads are often a primary source of human-caused sediment increases, and sediment yields are generally higher from roads than from trails, and from motorized trails than from non-motorized trails. It is important, therefore, that Travel Plans provide adequate limitations and restrictions on motorized uses to minimize road and travel impacts to watersheds, water quality, fisheries, soil integrity, wildlife habitat/security, spread of weeds, air quality, and overall ecosystem functions. We support proposed efforts to restrict motorized vehicles to designated roads and trails.

While the action alternatives all appear to be improvements to no action, we consider Alternative C to include more environmentally protective features than action Alternatives A or B (i.e., more protection of streams, water quality, fisheries, wildlife, etc.). Alternative C would have the highest potential reduction in miles of road erosion and runoff (152 miles vs. 100 miles with Alternative B and 38 miles with Alternative A); lowest mileage of roads with high erosion hazard (135 miles vs. 170 miles with Alternative B and 219 miles with Alternative A); least miles of roads designated for public motorized use (198 miles vs. 211 miles with Alternative B and 225 miles with Alternative A); lowest road density (0.27 mi/mi<sup>2</sup> vs. 0.32 mi/mi<sup>2</sup> with Alternative B and 0.40 mi/mi<sup>2</sup> with Alternative A); lowest weed susceptible acres within the designated road corridor (2,211 acres vs. 11,029 acres with Alternative B and 15,290 acres with Alternative A). Alternative C also has less potential impact to sensitive Yellowstone cutthroat trout and their habitat (Table 3-46, page 3-121).

The EPA supports selection of Alternative C. Although while we support Alternative C over the preferred alternative, Alternative B, we recognize that there are many user groups and interests, and social, economic and environmental effects and trade-offs that

need to be considered during decision-making, and we understand that Alternative B may be more socially acceptable than Alternative C. We believe Alternative B is preferable to No action and Alternative A, since it includes more features to reduce adverse environmental effects. We have the greatest environmental concerns with No action and Alternative A due to increased adverse effects on watersheds, water quality, fisheries and wildlife habitat and security with these alternatives.

However, we still recommend that Alternative B be modified to include further reductions in motorized routes, particularly routes in areas with high hazard (erosive) soils. We note that Table 3-28 showing route miles by erosion hazard rating for alternatives (page 3-74) indicates that the preferred alternative would include 15.9 miles of public motor vehicle use and 49.3 miles of OHV use on high hazard rating soils. Alternative C, however, includes no such routes on high hazard soils. We believe additional reductions in motor vehicle and OHV route designations for high hazard soils should be included in the preferred alternative. At the very least improved rationale for having motor vehicle routes and OHV routes on high hazard soils with Alternative B should be provided in the FEIS.

#### Water Quality/Aquatics

3. Thank you for including a table (Table 3-32, page 3-87) identifying streams on Montana's Clean Water Act Section 303(d) list of impaired waters. We note that there appear to be additional streams within the analysis area that are not identified on this list (e.g., Rock Creek, West Red Lodge Creek). We recommend that the impairment status of surface waters within the area be compared vs. the most current 2006 303(d) list (available at, <http://www.deq.state.mt.us/CWAIC/default.aspx>), to be sure that all listed streams are identified in the FEIS.
4. As you know, stream segments designated as "water quality impaired" and/or "threatened" listed on State 303(d) lists require development of a Total Maximum Daily Load (TMDL). A TMDL:

*Identifies the maximum load of a pollutant (e.g., sediment, nutrient, metal) a waterbody is able to assimilate and fully support its designated uses; allocates portions of the maximum load to all sources; identifies the necessary controls that may be implemented voluntarily or through regulatory means; and describes a monitoring plan and associated corrective feedback loop to insure that uses are fully supported; Or can also be viewed as, the total amount of pollutant that a water body may receive from all sources without exceeding WQS; Or may be viewed as, a reduction in pollutant loading that results in meeting WQS.*

Montana's approach is to include TMDLs as one component of comprehensive Water Quality Plans (WQPs). TMDLs/WQPs contain eight principal components:

1. Watershed characterization (hydrology, climate, vegetation, land use,

- ownership, etc.)
2. Description of impairments and applicable water quality standards.
  3. Pollutant source assessment and estimate of existing pollutant loads, including pollutant loads in tributaries to 303(d) listed waters.
  4. Water quality goals/restoration targets.
  5. Load allocations (i.e., TMDLs).
  6. Restoration strategy
  7. Monitoring Strategy
  8. Public involvement (30 day public comment period, informational meetings, etc.)

The load allocations and targets established by TMDLs/WQPs inform land managers how much sediment, nutrient or other pollutant discharge may be too much (i.e., prevent support of beneficial uses). A WQP provides a means to track the health of a stream over time. If a WQP has not restored beneficial uses within five years, the Montana DEQ conducts an assessment to determine if:

- \* the implementation of new and improved BMPs are necessary;
- \* water quality is improving but more time is needed to comply with WQS; or
- \* revisions to the plan will be necessary to meet WQS.

The Montana Dept. of Environmental Quality (MDEQ) and EPA are under a Court Ordered schedule to prepare TMDLs. Montana has divided the State into TMDL Planning Areas, grouping streams with similar water quality problems and land ownership as much as possible on a watershed basis. Each TMDL planning area may include 4 to 10 impaired watersheds that have specific TMDL preparation needs. See <http://www.deq.state.mt.us/wqinfo/TMDL/index.asp> for the latest schedule for preparation of TMDLs in Montana.

Pending completion of a TMDL in Montana, new and expanded nonpoint source activities may commence and continue, provided those activities are conducted in accordance with (MCA 75-5-703). The Administrative Rules of Montana (17.30.602) define these as “methods, measures, or practices that protect present and reasonably anticipated beneficial uses.” “Reasonable soil, land and water conservation practices” include but are not limited to structural and nonstructural controls and operation and maintenance procedures. Appropriate practices may be applied before, during, or after pollution producing activities.

It is important to note that “reasonable soil, land and water conservation practices” are differentiated from BMPs, which are generally established practices for controlling nonpoint source pollution. BMPs are largely practices that provide a degree of protection for water quality, but may or may not be sufficient to achieve Water Quality Standards and protect beneficial uses. “Reasonable soil, land and water conservation practices” include BMPs, but may require additional conservation practices, beyond BMPs to achieve Water Quality Standards and restore beneficial uses.

It is important that the Beartooth Travel Management Plan be consistent with the TMDLs and Water Quality Plans being developed by the State of Montana to restore water quality and beneficial use support in impaired 303(d)-listed waters on Beartooth District. Table 3-34 (pages 3-97 to 3-99) indicates that roads/trails are impacting water quality, including impacts to some 303(d) listed streams (e.g., Rock Creek, Bad Canyon Creek, Crooked Creek, West Red Lodge Creek). Reduction of sediment delivery from roads is an important element in water quality restoration. Road reclamation and improvements in road drainage and BMPs (i.e., installing waterbars, drain dips, and ditch relief culverts), and relocating roads away from streams, decommissioning roads, removing and/or upgrading undersized culverts, eliminating fords, and armoring stream channels at former road stream crossings, and reducing motorized uses in erosive areas should improve water quality in the long-term, and help provide consistency with the TMDLs. We also note that sources of pollutant loading may also occur in unlisted tributaries to listed streams, and TMDLs must account for all sources of pollution, hence there is a need to also address road related pollution sources in watersheds of 303(d) listed waters.

Reductions in road density are also important for improving watershed conditions and aquatic health in area streams. Areas with higher road density have been correlated with higher levels of stream sedimentation, and higher quality aquatic habitat and higher populations of salmonid fish (trout) are often associated with watersheds with low road density.

The Beartooth Travel Management analysis area appears to be within the Stillwater-Carbon, Rock Creek-Red Lodge, and Clark Fork-Yellowstone TMDL Planning Areas. TMDLs and Water Quality Plans are due for these areas in 2012. We recommend that the Beartooth Ranger District coordinate their travel management planning with the Montana DEQ as well as EPA TMDL staff to assure travel plan consistency with TMDLs and water quality restoration plans being prepared by MDEQ (contact Robert Ray or Mark Kelley of the MDEQ in Helena at 444-5319 and 444-3508, respectively; and Ron Steg, EPA TMDL Coordinator for Montana in Helena at 457-5024).

Proposed travel management should also be discussed with any local watershed groups that may be involved in preparing TMDLs and water quality plans. Aquatic/water quality effectiveness monitoring activities that are being carried out to evaluate water quality effects from the transportation system should also be described.

5. We are pleased that roads and trails were evaluated for their potential to impact water quality or natural channel processes with evaluation of numbers of stream crossings, routes within 100 feet of streams, and erosion hazards (page 3-83). The DEIS states that this evaluation determined that there were 18 routes totaling 41 miles that have a high risk of water quality impacts (Table 3-30, page 3-84). Eighty routes were reviewed on the ground to observe impacts, with the results summarized in Table 3-31, which indicate that 18 roads had water quality impacts, along with impacts at 4 additional adjacent dispersed campsites. Field recommendations are included in Table 3-31 to address roads

with water quality impacts (e.g., road reconstruction, maintenance, closure, improved road drainage, etc.). In addition Appendix E shows priority road/trail rehabilitation.

It is not clear to us, however, if adequate resources (funds) are available to implement the field recommendations in Table 3-31 and/or the priority rehabilitation measures in Appendix E to address water quality impacts. The DEIS states that compliance with Forest Plan direction and water quality regulations will be possible because routes needing active rehabilitation (Alternative E) are part of all action alternatives (page 3-100). The DEIS also states in regard to road decommissioning (page 1-7) that roads and routes are generally not being proposed for decommissioning or obliteration as a part of this proposal, although nine sites have been identified as having high priority water quality improvement needs. This leaves some uncertainty in regard to the road rehabilitation that may be carried out. It is not clear to us if all the actions identified in Appendix E and Table 3-31 will actually be carried out. The FEIS should identify those recommendations which will be carried out on a timely basis to address water quality impacts of existing roads and adjacent dispersed sites.

We are concerned that limited funding is available for road and trail maintenance and road decommissioning so that the recommendations identified in Table 3-31 and Appendix E will not be carried out. We appreciate the inclusion of a discussion of road/trail maintenance in the DEIS (Issue #11, page 3-197 to 3-202). Table 3-78 summarizes road miles receiving annual maintenance during the last six years, and we calculated an average of approximately 28 miles of system road received some maintenance annually during this period. Table 3-17 (page 3-30) appears to indicate that there are 225 miles of road on the District, however, Table 3-73 (page 3-177) indicates that there are 287 miles of motorized routes currently and 341 miles with Alternative A (existing situation). It is not clear, therefore, how many roads are currently on the District to compare the 28 miles of annual road maintenance to, but it appears that only approximately 8-13% of the roads on the District to receive annual maintenance. Regardless of which specific annual maintenance percentage may be accurate, they all appear to evidence that funding and resources for road/motorized route maintenance are very limited.

We are concerned that the level of funding for road maintenance is inadequate to correct road deficiencies and road impacts to resources, since there is a significant road maintenance backlog on National Forests, and we understand additional road maintenance budget reductions are proposed. We believe that there should be a continuing road inspection, evaluation and maintenance program in place to identify road drainage and BMP needs, including an inspection, evaluation and road maintenance program, and adequate funds to correct road deficiencies. We have serious concerns that road maintenance budgets are not adequate to properly maintain the road system.

We encourage the Forest Service to incorporate as much road rehabilitation and road closure and decommissioning as possible in its preferred alternative, particularly removal of road stream crossings, and obliteration of illegally user created non-system roads

causing resource damages. We support prioritizing decommissioning of roads close to streams rather than roads on upper slopes or ridges, and roads on sensitive soils or slopes or in landslide prone areas that have greater erosion potential, or roads within riparian areas to maximize water quality improvement benefits. Where roads or trails are located in narrow valleys adjacent to streams where roads/trails cannot be decommissioned, we recommend consideration of use of vegetative plantings, silt fences, and/or rock or log placement along the stream banks and/or steep slopes to reduce sediment entry into the streams.

We also want to note that it is difficult to effectively restrict motorized access and protect public lands with simple gated road closures. Road rip-seed-slash (obliteration or full road recontour) is a more effective, and thus, preferred method of road closure. We advise removing and restoring stable drainage ways during road removal to address water quality concerns. It is important that adequate attention be directed to restoring natural drainages and culvert removal and revegetating natural landscapes by ripping, scarifying, and seeding disturbed areas with native seed.

We believe efforts to improve road conditions and reduce sediment delivery from roads and decommission unneeded roads should be an important element of the Travel Plan. One of our main concerns with travel planning is that the poor conditions of existing roads and trails are often not adequately addressed during the process.

6. While we support Alternative C, we are pleased that the preferred alternative includes features that would reduce environmental impacts of the transportation system (i.e., 5.9 miles of system routes will not be designated (for motorized use); 11.6 miles of road would be converted to administrative use; 2 miles of road would be converted to trail; 37.7 miles of road would have seasonal restrictions; and 7.2 miles of road would be converted to less damaging travel modes, Table 3-35, page 3-92). We agree that reductions in motorized uses that are associated with seasonal restrictions and conversion of roads to administrative use should help to reduce adverse impacts.

Roads/trails often tend to become wider and rutted with heavy motorized use, creating a greater need for monitoring of road/trail conditions, and for road and trail maintenance for repair and erosion control. Motorized uses are more likely to accelerate erosional processes and worsen poor road conditions, and increase stream sedimentation and degradation of fisheries habitat, and sediment yields are generally higher from roads than from trails, and from motorized trails than from non-motorized trails. Travel management changes that will reduce motorized uses are likely to reduce water quality impacts, particularly for roads near streams and roads in more erosive areas.

However, even though we are pleased that the preferred alternative would likely reduce motorized use impacts to water quality, we have concerns that non-use of some routes (#2073F, 2073H, 2085A, 2097C, and 2478) will not fully mitigate water quality impacts, and future actions will be needed to bring such routes into compliance with forest plan standards and water quality regulations (page 3-93). We are also concerned that risks to

water resources are stated for routes #2085L, 2085M, 2071, 2421, 20714, 207111, 20719, 21417, 21418, 21419, 24141A, 24141C, 242119A, 24219, and future actions will be needed to address the problems with these routes (page 3-100). As stated above, we are concerned that there are not adequate funds to carry out the needed future actions (i.e., road maintenance or upgrading or decommissioning) for compliance with forest plan standards and water quality regulations.

7. The also DEIS states on page 3-93 in regard to adding routes #21407 and #241412 that “it is unknown when maintenance would occur,” and that impacts from dispersed campsites near roads will, “continue into the foreseeable future until site maintenance occurs, although it is unknown when maintenance would occur,” and that “maintenance will be insufficient to address the problems” on routes #21401A and #21401B (page 3-94). These statements only reinforce EPA concerns about the inadequacy of Forest Service road maintenance budgets.

We do not support the addition of new routes to the road system, especially routes with high risk of erosion and water quality impacts, when funding for road maintenance is already inadequate to address resource impacts from existing roads and nearby campsites. The EPA believes road and trail networks should be limited to those that can be adequately maintained within agency budgets and capabilities, and roads which cannot be properly maintained should be decommissioned. Certainly new routes and increased demands for road maintenance should not be placed on the system when road maintenance is already inadequate and overburdened.

8. EPA’s specific areas of concern regarding roads, include road drainage and surface erosion, adequate numbers of ditch relief culverts to avoid drainage running on or along roads; interception and routing of sediment to streams; culvert sizing and potential for washout; culvert allowance of fish migration and effects on stream structure and seasonal and spawning habitats; supplies of large woody debris; road density, number of road stream crossings; and road encroachment on stream, riparian, and wetland habitats. For your information, EPA’s general recommendations regarding roads are to:

- \* minimize road construction and reduce road density as much as possible to reduce potential adverse effects to watersheds;
- \* locate roads away from streams and riparian areas and away from steep slopes, landslide prone areas, or erosive soils; as much as possible (roads at or near ridgetops have far fewer failures and generate far less sediment for streams than roads in lower slope positions);
- \* minimize the number of road stream crossings;
- \* stabilize cut and fill slopes;
- \* provide for adequate road drainage and control of surface erosion with measures such as adequate numbers of waterbars, maintaining crowns on roads, adequate numbers of rolling dips and ditch relief culverts to promote drainage off roads avoid drainage or along roads and avoid interception and routing sediment to streams;
- \* ditch relief culverts should not be placed where they may discharge onto erodible

slopes or directly into streams.

- \* where possible install cross-drainage above stream crossings to prevent ditch sediments from entering streams.
- \* consider road effects on stream structure and seasonal and spawning habitats;
- \* allow for adequate large woody debris recruitment to streams and riparian buffers near streams.
- \* construct road stream crossings during periods of low flow to avoid fish spawning and incubation periods, and/or dewater crossing stream segment prior to construction.
- \* obliterate temporary roads constructed for timber sales before termination of the timber sale contract (and revegetate within ten years after the contract), and require contractors or permittees to restore natural drainage patterns (i.e., remove culverts and fill from waters of the U.S., remove cross drains and install water bars, etc.) and stabilize slopes (e.g., outsloping or contouring).

Culverts should be properly sized to handle flood events, pass bedload and woody debris, and reduce potential for washout, and should be properly aligned with the stream channel and designed and placed to allow for fish migration. Undersized culverts should be replaced and culverts which are not properly aligned or which present fish passage problems and/or serve as barriers to fish migration should be adjusted. Bridges or open bottom culverts that simulate stream grade and substrate and that provide adequate capacity for flood flows, bedload and woody debris are recommended to minimize adverse fisheries effects of road stream crossings.

Road maintenance (e.g., blading) of unpaved roads in a manner that contributes to road erosion and sediment transport to streams and wetlands should be avoided. It is important that management direction assures that road maintenance be focused on reducing road surface erosion and sediment delivery from roads to area streams. Blading should only be conducted: 1) when the road surface becomes too rough for the designated vehicle use; 2) when the surface becomes a safety hazard; or 3) when it is needed to improve road drainage by reducing road surface erosion and sediment delivery from roads to area streams. Where possible do not remove vegetation growing in ditches draining insloped roads. Unpaved roads should not be graded (bladed) in a manner that contributes to road erosion and sediment transport to streams and wetlands. Avoid routine general blading of ditch lines on insloped roads to maintain vegetative cover. Where necessary blade only the ditch segments where blockage problems occur. Graded material should not be sidecast over the shoulder, and shoulders should not be widened to encroach upon and have adverse effects upon streams, wetlands, and riparian areas adjacent to roads.

Road use during spring breakup conditions should also be avoided. Snow plowing of roads in a manner that adds sediment to streams and wetlands should be avoided. Snow plowing of roads when temperatures are above freezing should also be avoided to limit development of runoff created road ruts during thaws that increase road erosion (i.e., ruts channel road runoff along roads increasing erosion of the road surface, and sediment delivery from the road). The potential for snow plowing to cause runoff created ruts

increases with snow plowing operations later in winter when there may be frequent thaws. Road maintenance staff should be aware of this concern, and limit late winter snow plowing to when it is absolutely necessary.

We are pleased that Forest Service Region 1 provides training for operators of road graders regarding conduct of road maintenance in a manner that protects streams and wetlands, (i.e., Gravel Roads Back to the Basics). If there are road maintenance needs on unpaved roads adjacent to streams and wetlands we encourage utilization of such training (contact Donna Sheehy, FS R1 Transportation Management Engineer, at 406-329-3312).

As you may know, there are also training videos available from the Forest Service San Dimas Technology and Development Center for use by the Forest Service and its contractors (e.g., "Forest Roads and the Environment"-an overview of how maintenance can affect watershed condition and fish habitat; "Reading the Traveled Way" -how road conditions create problems and how to identify effective treatments; "Reading Beyond the Traveled Way"-explains considerations of roads vs. natural landscape functions and how to design maintenance to minimize road impacts; "Smoothing and Reshaping the Traveled Way"-step by step process for smoothing and reshaping a road while maintaining crowns and other road slopes; and "Maintaining the Ditch and Surface Cross Drains"-instructions for constructing and maintaining ditches, culverts and surface cross drains).

9. Table 3-40 and table 3-41 (pages 3-112, 3-114) indicates that roads and trails are also impacting streams with populations of sensitive aquatic species, such as Yellowstone cutthroat trout, Western boreal toad, and Northern leopard frog, (Table 3-40, page 3-112). Table 3-42 shows routes with higher risks to fish and amphibians, however, only one of these routes appear to be designated for motorized travel (#241412). This route is stated to be a short road segment and dispersed campsite that is in close proximity to Little Rocky Creek which harbors genetically pure Yellowstone cutthroat trout. This route is also stated to contribute sediment to the stream and have a moderate to high potential for impacting aquatic habitat and sensitive species. We recommend that this route be relocated away from the stream and/or designated for non-motorized travel to reduce potential impacts to the stream and aquatic species.
10. Has the Custer NF and Beartooth Ranger District evaluated or conducted a survey of fish passage on culverts on the District? Since culverts often impede fish passage we recommend that such a survey be conducted to identify culverts causing fish passage problems. A priority list of culverts requiring modification or replacement should then be developed.
11. We are pleased that the preferred alternative includes closure of routes # 2085L and 2085M that have potential to deliver sediment to Crooked Creek, a 303(d) listed stream with genetically pure Yellowstone cutthroat trout (page 3-118).

## Wetlands

12. EPA considers the protection, improvement, and restoration of wetlands to be a high priority. Wetlands increase landscape and species diversity, and are critical to the protection of designated water uses. Possible impacts on wetlands include damage or improvement to: water quality, habitat for aquatic and terrestrial life, channel & bank stability, flood storage, ground water recharge and discharge, sources of primary production, and recreation and aesthetics. Roads and motorized uses in or near wetlands and riparian areas have potential to affect wetland integrity and function.

Executive Order 11990 requires that all Federal Agencies protect wetlands. In addition national wetlands policy has established an interim goal of **No Overall Net Loss of the Nation's remaining wetlands**, and a long-term goal of increasing quantity and quality of the Nation's wetlands resource base (see "Presidential Wetland Policy of 1993" at website, <http://www.usace.army.mil/inet/functions/cw/cecwo/reg/aug93wet.htm> ). Wetland impacts should be avoided, and then minimized, to the maximum extent practicable, and then unavoidable impacts should be compensated for through wetland restoration, creation, or enhancement.

The DEIS indicates that wetlands and riparian areas are scattered throughout the Forest (page 3-130), although they are less than 5% of the lands on the District (page 3-132). It is important that appropriate limitations and restrictions be placed on motorized vehicle use to protect against degradation of wetlands and other sensitive areas. We did not see much other discussion, however, regarding potential impacts of travel management alternatives on wetlands, and if any impacts occur, how they will be mitigated (i.e., mitigation means sequence of avoidance, minimization, rehabilitation, and compensation for unavoidable impacts). We believe the FEIS should include some disclosure of potential travel management impacts upon wetlands, and if no impacts are expected, at least state that.

## Enforcement

13. Executive Orders 11644 and 11989, "Use of Off-Road Vehicles on Public Lands," require agencies to ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands. Restrictions on motorized travel, however, will not be effective in protecting sensitive resources without adequate enforcement.

We are pleased that the DEIS evidences understanding of the need to improve enforceability of restrictions on motorized recreation (page 1-3), and includes discussion of the enforcement issue (Issue #10, page 3-193 to 3-197). We support the effort to have understandable travel maps (Motor Vehicle Use Map, MVUM), and clearer travel management rules for the public. We also encourage improved road and trails signs to promote understanding of travel rules, and thus, improved voluntary compliance with the

travel plan. In addition, we support adding law enforcement personnel to handle the increases in motorized uses on the District. We particularly recommend increasing enforcement officer contact with off-road vehicle users and increasing enforcement staffing on holidays and weekends.

The DEIS states that there is only one full time law enforcement officer on the Custer National Forest and five Forest Protection Officers and seasonal staff with enforcement training (page 3-195). It is stated that increased law enforcement capability can be accomplished through changes in budget priorities and allocations. We very much support improved budgets for travel management enforcement. We are concerned, however, that funding for effective enforcement of travel restrictions has often been inadequate to promote appropriate compliance, and thus, adequate protection of water quality, fisheries, wildlife, and other sensitive resources. We are concerned that the budgeted amounts in Table 3-76 for patrols may not allow for adequate enforcement of travel plan restrictions. Will the amount of \$40,100 for patrols, and \$5,000 patrol vehicle costs allow for increasing enforcement officer contact with off-road vehicle users and increasing enforcement staffing on holidays and weekends?

#### Monitoring

14. There should be an effective program for monitoring, evaluation and adaptive management to assure that effects of travel management are identified and management modified where necessary to reduce adverse effects. The DEIS states (page 2-11) that, "monitoring and evaluation could be used to determine if the physical, biological, social, and economic effects of implementing any alternative occur as predicted," and that "monitoring may be conducted by sampling a range of projects from the entire Beartooth Ranger District as outlined in the Forest Plan monitoring section." The DEIS also states that, "if Beartooth Travel Management is selected for monitoring on the Forest, the following table list Forest Plan criteria for evaluating the effects of implementation."

We are concerned that these statements include ambiguous or uncertain language stating that monitoring "could be used" and "may be conducted" and "if Beartooth Travel Management is selected." This language does not provide assurance that there will be an effective program for monitoring, evaluation and adaptive management for travel management. Unless effects of travel are identified through monitoring they will not be known, and likely not mitigated. The DEIS, does not clearly state a commitment or assurance that adequate monitoring will be conducted to identify effects from travel or a commitment that effects of travel management will be mitigated with the monitoring and adaptive management program.

We realize that monitoring budgets are limited, but we believe the Travel Plan should include a monitoring plan to assess effects of road and travel management. The initial decisions on opening or closing roads to motorized travel may need to be modified based on impacts resulting from travel that can only be identified by monitoring. EPA believes monitoring and evaluation should take place with an adaptive management approach for

all resource conditions. It is through the iterative process of setting goals and objectives, planning and carrying out travel management, monitoring impacts of travel management, and feeding back monitoring results to managers so they can understand effects and make needed adjustments to mitigate effects, that adaptive management works.

We believe the FEIS should describe in greater detail the monitoring and adaptive management program that will be used to assure that effects of travel management will be detected and adequately mitigated. A properly designed monitoring plan will quantify how well the preferred alternative resolves the issues and concerns identified during scoping, and provide for monitoring and feedback of monitoring results to improve predictive methodology and modify mitigation.

We are particularly concerned about effects of roads and motorized uses on water quality, aquatic habitat and fisheries, as well as other resources such as wildlife habitat, sensitive plants. Given the acknowledged impact of roads/trails and ATV/OHV use on water quality and fisheries and other resources such as wildlife, sensitive plants, etc., it would appear appropriate to develop monitoring components to assess travel management impacts on these resources.

We recommend development of criteria or thresholds that are protective of resources (e.g., for aquatic and wildlife habitat) that represent the minimum desired conditions for each resource affected by travel management in the Beartooth analysis area. These criteria can serve as "trigger points" that when reached trigger conduct of additional management responses, such as more detailed monitoring and evaluation, conduct of additional planning or mitigation. Monitoring and evaluation of resource impacts relative to threshold values followed by subsequent management responses when thresholds are exceeded are what makes adaptive management programs work.

We also recommend that mechanisms for public disclosure of the monitoring analysis and the decisions for the Travel Plan be provided. The roles of the Forest Service, other Agencies, independent science, and the public should be identified. The EIS should discuss the future decision points in this adaptive process that may require additional NEPA analysis. The EIS should also discuss the funding is available for monitoring and adaptive management.

### **Recreation**

15. We appreciate the discussion of outdoor recreation in the DEIS (beginning on page 3-18), including the many tables showing visitations and recreation trends and information on motorized and non-motorized recreational opportunities. While we recognize that a balance of motorized and non-motorized recreational opportunities need to be provided, we have concerns that motorized uses contribute more to resource and environmental damage than non-motorized uses. Motorized uses push wildlife onto smaller and smaller patches of habitat; reducing migration corridors; increasing adverse effects to wildlife habitat and security; causing soil erosion and adverse effects to water quality and aquatic

habitat and fisheries; spreading weeds; and increasing opportunity for vandalism of historic properties.

Motorized uses also have the potential to degrade the quality of experience and solitude desired by non-motorized uses (e.g., hiking, viewing natural features and wildlife). It appears that the no action alternative provides the greatest opportunity for motorized recreation, and least opportunity for non-motorized recreation without effects of motorized uses. In contrast, Alternative C appears to provide the most opportunities for non-motorized recreation (Tables 3-16, 3-17, page 3-30). We support increasing opportunities for non-motorized uses such as viewing wildlife or natural features in solitude. We believe motorized activities should be limited so that they only occur in a manner and location that minimize effects to other public uses, and are consistent with protection of natural features, wildlife, and other resources. This provides further reason for our support of Alternative C since it provides greater limitations on motorized uses to allow greater levels of protection for wildlife, natural features, and other resources that are used by the public.

16. We support the limitation of vehicle access to dispersed campsites to only 300 feet from designated routes (pages 3-32). We also recommend that special limitations should be considered to limit vehicle access even more if necessary to assure that motorized access does not damage ecologically sensitive resources.

EPA encourages locating campground facilities, and concentrated public recreational uses away from ecologically sensitive resources. We believe motorized access to camping sites in ecologically sensitive areas should be restricted even if they are within 300 feet of designated routes. It would be helpful and appropriate to identify and designate camping sites that avoid sensitive areas, and/or to encourage camping or concentrated public use in areas that are more resilient and can more easily recover from impacts and/or accommodate public use with less impacts.

#### Wildlife

17. We believe the Travel Plan should avoid adverse impacts upon species of special concern, and contribute to recovery of listed species, and should maintain and protect high quality wildlife habitat and linkage corridors for productive and diverse populations of wildlife species (species viability). Wildlife connectivity and security should be maintained or improved and wildlife fragmentation and displacement should be reduced.

It is known that motorized use increases wildlife encounters with humans which can result in habitat degradation, displacement, increased wildlife mortality, changes in behavior, increased stress, and reduction of reproductive success. We support adequate limitations on motorized travel and road density for protection of wildlife habitat and security, and key corridors for wildlife migration.

We are pleased that biological assessment of potential effects to threatened and endangered (T&E) species indicates that the preferred alternative will have “no effect” on Canada lynx, gray wolf, least tern, black-footed ferret, Table 3-62, page 3-149), and is consistent with the Grizzly Bear Conservation Strategy for the Yellowstone Ecosystem (page 3-161). We are also pleased that the preferred alternative would have “no impact” on sensitive species (peregrine falcon, Baird’s sparrow, Bald eagle.); and may even have a beneficial impact on some species (pallid bat, spotted bat, Townsend’s big-eared bat).

EPA recommends that the final EIS and Record of Decision include documentation of U.S. Fish & Wildlife Service concurrence with these “no effect” assessments upon T&E species. If the consultation process is treated as a separate process, the Agencies risk USFWS identification of significant impacts, perhaps additional mitigation measures, or changes to the preferred alternative.

**Roadless**

18. The DEIS indicates that there are road segments designated for public or administrative use within Inventoried Roadless Areas (i.e., 9.5 miles, 10.0 miles, 9.4 miles and 10.8 miles of road, respectively, within roadless areas with Alternatives A, B, C, and No action, Table 1-2, page 1-11).

EPA supports protection of the pristine character and integrity of the few remaining minimally disturbed roadless areas to prevent further fragmentation and degradation of wildlife habitat, and to maintain or restore solitude and primitive recreation characteristics in such areas. Roadless areas often provide population strongholds and key refugia for listed or proposed species and narrow endemic populations due to their more natural undisturbed character. We have concerns about allowing roads and motorized recreation within such areas that may have potential adverse effects on roadless values, especially in recognition of trends of increasing public use of OHV’s that can access previously inaccessible lands and cause increased damage to resources.

One of the National Strategic Goals regarding the use of motorized equipment in wilderness (FSM 2326.02) is to “Exclude the sight, sound, and other tangible evidence of motorized equipment or mechanical transport within wilderness, except where they are needed and justified.” We also believe provisions of access to roadless lands should be limited to where such access is absolutely needed and justified. It is important that our last remaining wildlands remain unspoiled and natural in order to provide clean water and air, sanctuary for native wildlife and plant species, and opportunities for low impact human recreation.

We encourage the Custer NF to restrict motorized use in remaining roadless areas to protect the pristine characteristics of such areas. We support closure of motorized routes created by cross-country travel in such areas, with closures policed and enforced. We support the features of Alternative C that would result in the fewest open road miles within roadless areas.

**Vegetation**

19. We support proposed efforts to stop and/or reverse the trend of denuded vegetation near campsites associated with pack and saddle stock use of the campsites to maintain the Wilderness characteristics of such sites (page 1-3). We note that extensive damage to vegetation can occur from motorized uses or user-built access roads and associate campsites.
20. We are pleased that the DEIS includes discussion of travel management impacts on the spread of noxious weeds (beginning on page 3-124). Noxious weeds are a great threat to biodiversity. Weeds can out-compete native plants and produce a monoculture that has little or no plant species diversity or benefit to wildlife. Noxious weeds tend to gain a foothold where there is disturbance in the ecosystem, such as road construction and where off-road vehicles disturb soils.

EPA supports the need to minimize noxious weed infestation, and we were very pleased with the Custer National Forest 2006 Weed Management EIS that described the Forest's Integrated Weed Management Program. We agree with the DEIS statement that cars and trucks are vectors of weed spread (page 3-125). In fact, we believe motorized vehicles—cars, trucks, ATVs, motorcycles, and even snowmobiles- may be the greatest vector for spread of weeds. A single vehicle driven several feet through a knapweed site can acquire up to 2,000 seeds, 200 of which may still be attached after 10 miles of driving (Montana Knapweeds: Identification, Biology and Management, MSU Extension Service.)

We believe an effective noxious weed control program must include restrictions on motorized uses, particularly off-road uses. Off-road vehicles are designed to, and do, travel off-trail, disturbing soil, creating weed seedbeds, and dispersing seeds widely. Weed seed dispersal from non-motorized travel is of lesser concern because of fewer places to collect/transport seed, and the dispersal rate and distances along trails are less with non-motorized travel.

Table 3-54 (page 3-135) evidences that Alternative C with its greater restrictions on motorized uses has a lesser potential for spreading of noxious weeds. We encourage limiting motorized uses to designated roads and trails to reduce threat of weed spread, and limitations on motorized use in roadless areas, which are often reservoirs of native plants. The need to avoid the spread of weeds, provides further support for the selection of Alternative C. For your information, measures we often recommend for preventing spread from source areas to uninfested areas include:

- ▶ Ensure that equipment tracks and tires are cleaned prior to transportation to an uninfested site.
- ▶ Focus control efforts at trail heads and transportation corridors to prevent tracking of seed into uninfested areas.
- ▶ Attempt to control the spread from one watershed to another to reduce water as a

transport vector.

- ▶ If a localized infestation exists and control is not a viable option, consider rerouting trails/roads around the infestation to reduce available vectors for spread.
- ▶ Establish an education program for industrial and recreational users and encourage voluntary assistance in both prevention and control activities.
- ▶ Reseed disturbed sites as soon as possible following disturbance.

We also note that hay can be a source of noxious weed seed. Hay/straw is used as mulch to slow erosion and encourage seed germination, and used to feed horses in hunting and recreation camps, and as wildlife feed during harsh winters. The Federal Noxious Weed Act of 1974 prohibits the interstate transport of noxious weeds or weed parts, such as seed. Cattle that are released on grazing allotments or horses used on public lands can transport undigested weed seed and spread it in their manure. Weed free seed forage should be required for backcountry users.

### **Air Quality**

21. We did not see analysis and discussion of potential air quality effects associated with travel management, however, we recognize that all the action alternatives propose fewer miles of motorized roads/trails than no action, and the project area is known to have good air dispersion characteristics, so that impacts of travel within the analysis area roads/trails and on the air quality are likely to be small. We anticipate that the Travel Plan is likely to be consistent with National Ambient Air Quality Standards (NAAQS) and other applicable air quality requirements, but we recommend that the FEIS identify Travel Plan consistency with NAAQS and other applicable air quality requirements.

## U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements

### Definitions and Follow-Up Action\*

#### Environmental Impact of the Action

**LO - - Lack of Objections:** The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

**EC - - Environmental Concerns:** The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

**EO - - Environmental Objections:** The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

**EU - - Environmentally Unsatisfactory:** The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

#### Adequacy of the Impact Statement

**Category 1 - - Adequate:** EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

**Category 2 - - Insufficient Information:** The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

**Category 3 - - Inadequate:** EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

\* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.



United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
Denver Federal Center, Building 56, Room 1003  
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Denver, Colorado 80225-0007



H-50

November 5, 2007

9043.1  
ER 07/814

Mr. Steve E. Williams, Forest Supervisor  
Custer National Forest  
1310 Main Street  
Billings, MT 59105

Dear Mr. Williams:

The Department of the Interior has reviewed the draft Environmental Impact Statement for the Beartooth Ranger District Travel Management Plan, Custer National Forest, Montana, and has no comments.

Sincerely,

  
Robert F. Stewart  
Regional Environmental Officer

cc: Doug Epperly, Project Leader

# 367

DEPARTMENT OF NATURAL RESOURCES  
AND CONSERVATION



BRIAN SCHWEITZER, GOVERNOR

SOUTHERN LAND OFFICE

STATE OF MONTANA

PHONE: (406) 247-4400  
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AIRPORT INDUSTRIAL PARK  
1371 RIMTOP DRIVE  
BILLINGS, MONTANA 59105-1978

December 12, 2007

Custer National Forest  
1310 Main Street  
Billings, MT 59105

Dear Steve, Doug, and Babete,

Thank you for the opportunity to comment on the Beartooth Travel Management Plan Draft Environmental Impact Statement.

The Montana Department of Natural Resources and Conservation (DNRC) Southern Land Office respectfully requests Road# 21415, as shown in Alternative A in Section 12-T7S-R18E, be open to highway vehicles only – yearlong, the same designation as Road# 2141. This road would provide vitally important legal access to the State's 5,610-acre block of School Trust land in Sections 3, 5, 6, 7, 8, 9, 10, 11, 12-T7S-R19E and Section 7-T7S-R20 in Carbon County. Currently, the DNRC does not have legal motorized access to this block of ownership. Allowing motorized access on this road to the west section line of Section 7-T7S-R19E would enable our agency access to actively manage its natural resources, provide for fire suppression activities, and provide recreational opportunities for the public.

Regardless of the Alternative chosen, opening this road to motorized access is crucial for the State of Montana to legally access one of its largest blocks of contiguous ownership in eastern Montana. Thanks again for the opportunity to comment.

Sincerely,

Richard A. Moore  
DNRC Southern Land Office Area Manager

- End of Appendix H -

# Appendix I: Biological Assessment

## I.1 INTRODUCTION

The following is the biological assessment (BA) for Terrestrial Wildlife Species for the Custer National Forest Beartooth Travel Management Final Environmental Impact Statement preferred alternative (Alternative B Modified).

**BIOLOGICAL ASSESSMENT**  
**FOR**  
**TERRESTRIAL WILDLIFE SPECIES**

**Beartooth Travel Management**

**Beartooth Ranger District**  
**Custer National Forest**

Prepared By:

\_\_\_/S/ Barbara A. Pitman\_\_\_\_\_   
Barbara A. Pitman – Wildlife Biologist

\_\_\_\_\_3/28/2008\_\_\_\_\_   
Date

Reviewed By:

\_\_\_/S/ Thomas Whitford\_\_\_\_\_   
Thomas Whitford – Forest Biologist

\_\_\_\_\_3/26/2008\_\_\_\_\_   
Date

## SUMMARY

### Determination of Effects

Implementation of the proposed Federal action *would not jeopardize the continued existence* of gray wolves and is *not likely to adversely affect* Canada lynx.

### Consultation Requirements

In accordance with the Endangered Species Act (ESA), its implementation regulations, and FSM 2671.4, the Custer National Forest is required to request written concurrence from the United States Fish and Wildlife Service (FWS) with respect to determinations of potential effects on Gray Wolves and Canada Lynx.

### Need For Re-Assessment Based on Changed Conditions

The Biological Assessment findings are based on best available data and scientific information available. A revised Biological Assessment must be prepared if: (1) new information reveals affects which may impact threatened, endangered, and proposed species or their habitats in a manner or to an extent not considered in this assessment; (2) the proposed action is subsequently modified in a manner that causes an affect which was not considered in this assessment; or (3) a new species is listed or habitat identified which may be affected by this action.

## INTRODUCTION

The purpose of this Biological Assessment is to review the possible effects of the proposed federal action on threatened, endangered, and proposed species and their habitats. Threatened, endangered, and proposed species are managed under the authority of the Federal Endangered Species Act (PL 93-205, as amended) and the National Forest Management Act (PL 94-588). Under provisions of the Endangered Species Act (ESA), Federal agencies shall use their authorities to carry out programs for the conservation of listed species, and shall insure any action authorized, funded, or implemented by the agency is not likely to: (1) adversely affect listed species or designated critical habitat; (2) jeopardize the continued existence of proposed species; or (3) adversely modify proposed critical habitat (16 USC 1536).

This biological assessment analyses the potential effects of the proposed action on all threatened, endangered, and proposed species known or suspected to occur in the proposed action influence area (Table 1). This species list was verified in March 2008 (US Fish and Wildlife Service 2008). Life history information on these species can be found in the reference document “The Distribution, Life History, and Recovery Objectives For Region One Threatened, Endangered, and Proposed Terrestrial Wildlife Species (2001) and is incorporated by reference in this Biological Assessment.

## Appendix I: Biological Assessment

Table 1. Threatened, Endangered, and Proposed Species Known or Suspected to Occur Within the Influence Area of the Proposed Action.

Species	Status	Occurrence
Gray Wolf ( <i>Canis lupus</i> )	Nonessential Experimental	Present
Canada Lynx ( <i>Lynx canadensis</i> )	Threatened	Present

The Yellowstone grizzly bear population was determined to be recovered and was delisted effective April 30, 2007 (USDI 2007). The bald eagle was determined to be recovered and was delisted effective August 8, 2007. Consultation on effects of proposed Federal actions on these species is therefore no longer required. Verbal concurrence with effects determinations for Gray wolf and Canada lynx was received from Lou Hanebury of the U.S. Fish and Wildlife Service on March 18, 2008.

### PROPOSED PROJECT

The Beartooth Ranger District of the Custer National Forest proposes to designate a system of roads and trails on the District for motorized public use. Designation would include the type of vehicle and season of use for each road and motorized trail. In addition, dispersed vehicle camping could occur within 300 feet of motorized routes except along approximately 8 ½ miles of road along the Main Fork of Rock Creek south of Red Lodge, MT. Where dispersed vehicle camping would be allowed, measures would be used to limit the expansion of existing sites and the creation of new sites to minimize resource impacts.

All routes currently exist on the ground and are either currently in the National Forest System or are unauthorized (non-system) routes. A total of 267 miles of routes would be designated for public motorized use. Seasons of use would be applied to 90 miles of routes to minimize resource damage. Ninety-seven miles of motorized routes currently in the National Forest System and 57 miles of non-system routes would not be designated for public motorized use. Of these, 53 miles would remain available for administrative use only. No cross-country travel areas or construction of new routes is proposed. The proposed action does not include winter for over-the-snow activity.

### SPECIES ASSESSMENT

#### Gray Wolf (*Canis lupus*)

##### Regulatory Framework

The northern Rocky Mountain wolf was listed as an endangered species under the Endangered Species Act in the lower 48 states in 1974. The U.S. Fish and Wildlife Service (FWS) approved a recovery plan for the gray wolf in the northern Rocky Mountains in 1980 and a revised plan in 1987. To further the recovery of gray wolves in the northern U.S. Rocky Mountains, the FWS in 1994 declared wolves in the Yellowstone and Central Idaho areas as experimental/nonessential. This designation facilitated the reintroduction of wolves into Yellowstone National Park and central Idaho in 1995 and 1996. All recovery criteria for wolves in the Greater Yellowstone Recovery

Area were met in 2002. Unless the U.S. Fish and Wildlife Service is challenged on the final rule for removing the Northern Rocky Mountain gray wolf population from the Federal List of Endangered and Threatened Wildlife, delisting will become effective March 28, 2008.

**Population and Habitat Status**

Table 2. Gray Wolf: Population and Habitat Status

Wolf Activity	Den Site	Rendezvous Site
Two packs known to utilize the Beartooth Mountains and adjacent areas, plus sightings of individuals, are occasionally reported.	None known	None known

As shown in Table 2, wolves have been reported sporadically on and adjacent to the District. At least two packs, the Rosebud and Moccasin Lake packs, utilize the Beartooth Mountains portion of the District (Trapp 2007). Occasional wolves that are probably not associated with these packs have also been reported on the Beartooth Unit.

**Direct, Indirect, and Cumulative Effects Analysis**

The action of motorized route designation in and of itself would not cause direct impacts. However, public use of the designated routes has potential to cause indirect effects, mainly through temporary disturbance and displacement of individual wolves. Off-highway vehicle use on the District is projected to increase 8% from 2008 to 2018, which may lead to increased potential for indirect effects in the future. Housing developments are undergoing construction on private lands adjacent to the Forest boundary. Development is reasonably likely to continue in the future and could contribute to cumulative effects.

**Determination of Effects**

The determination of effects for implementation of the proposed action is: **not likely to jeopardize the continued existence of the species or result in destruction or adverse modification of proposed critical habitat** for gray wolves. The determination is based on the following rationale:

- Wolves in the action area are designated a nonessential experimental population.

**Canada Lynx (*Lynx canadensis*)**

**Regulatory Framework**

The Canada lynx was listed as a federally threatened species under the Endangered Species Act (ESA) of 1973 in March 2000. At that time, the Forest Service signed a Lynx Conservation Agreement (CA) with the U.S. Fish and Wildlife Service. Under the

**Appendix I: Biological Assessment**

CA, the Forest Service agreed to consider the Canada Lynx Conservation Assessment and Strategy (LCAS) (Ruediger et al 2000) during project analysis. The CA was renewed in 2005 and the concept of occupied mapped lynx habitat was added. In 2006, the CA was amended to define occupied habitat and list the National Forests that were occupied. It was also extended until 2011 or until all relevant forest plans were revised to provide guidance necessary to conserve lynx. The Northern Rockies Lynx Management Direction (LMD), released in March 2007, was developed to fulfill the Forest Service’s agreement to amend the plans. The purpose of the Direction is to “incorporate management direction in land management plans that conserves and promotes recovery of Canada lynx, by reducing or eliminating adverse effects from land management activities on National Forest System lands, while preserving the overall multiple-use direction in existing plans” (USDA Forest Service 2007).

**Population and Habitat Status**

<b>Canada Lynx Activity</b>	<b>Project Within Lynx Elevation Zone</b>	<b>Foraging Habitat</b>	<b>Denning Habitat</b>
Occasional reported sightings	Yes	Yes	Yes

Four lynx sightings were documented on or adjacent to the Beartooth District between 1994 and 2007. Foraging and denning habitat are present, but denning has not been documented on the District. The action area is not within designated critical habitat.

Management direction in the LMD applies to occupied lynx habitat in Lynx Analysis Units (LAUs) on National Forest system lands and is recommended for application to unoccupied habitat. The Beartooth District contains four LAUs. The Rock Creek, Rosebud, and Stillwater LAUs encompass the Beartooth Mountains Unit, and the Pryor Mountains LAU encompasses the Pryor Mountains Unit. The LMD classifies the Beartooth Unit as occupied lynx habitat and the Pryors Unit as unoccupied habitat. The LMD does not have objectives, standards, or guidelines that apply to the scope of this analysis. However, the Lynx Conservation Assessment and Strategy has guidelines relative to Forest/backcountry roads and trails. The guidelines state “Determine where high total road densities (>2 miles per square mile) coincide with lynx habitat, and prioritize roads for seasonal restrictions or reclamation for those areas.” Under the proposed action, total road density in lynx habitat on the District would be 0.2 mi/sq mi.

**Direct, Indirect, and Cumulative Effects Analysis**

As mentioned above for wolves, the proposed action would not cause direct impacts. However, public use of the designated routes has potential to cause indirect effects, mainly through temporary disturbance and displacement of individual lynx. Off-highway vehicle use on the District is projected to increase 8% from 2008 to 2018. However, given the low road density and the rarity of documented lynx sightings, potential for encounters with lynx is small. Housing developments are undergoing construction on private lands adjacent to the Forest boundary. Development is reasonably likely to continue in the future. However, since there would be no direct effects and the potential

for indirect effects would be small, the potential for cumulative effects would also be small.

### Determination of Effects

The determination of effects for implementation of the proposed action is: **may affect, not likely to adversely affect** Canada lynx. The determination is based on the following rationale:

- Direct effects would not result from the proposed action.
- Motorized route density in lynx habitat would be 10% of the maximum road density guideline.
- Potential for encounters with individual lynx would be small
- Potential indirect effects would be negligible and discountable.
- The potential for cumulative effects would be small.

### REFERENCES

Ruediger, Bill, et al. August 2000. Canada Lynx Conservation Assessment and Strategy. USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, and USDI National Park Service. Forest Service Publication #R1-00-53, Missoula, MT. 142 pp.

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USDA Forest Service. 2007. Northern Rockies Lynx Management Direction Record of Decision. March 2007. National Forests of Montana, and parts of Idaho, Wyoming, and Utah.

**Appendix I: Biological Assessment**

**- End of Appendix I -**

# Appendix J: USDI Fish and Wildlife Service Concurrence

## J.1 INTRODUCTION

The following letter is from the USDI Fish and Wildlife Service and provides concurrence on the determination of effects for listed species in the biological assessment (BA) for the Custer National Forest's Beartooth Travel Management Final Environmental Impact Statement preferred alternative (Alternative B Modified).



United States Department of the Interior

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ES-61130 – Billings  
M.19 - Custer National Forest  
Travel Management Plan

May 2, 2008

Traute Parrie, District Ranger  
Custer National Forest  
Beartooth Ranger District  
HC 49, Box 3420  
Red Lodge, MT 59068

Dear Ms. Parrie:

This document transmits the U.S. Fish and Wildlife Service's (Service) concurrence on your determination of effects for listed species in your biological assessment (BA) for the proposed Custer National Forest's Beartooth Travel Management Final Environmental Impact Statement preferred alternative (Alternative B - Modified). The travel management plan addresses designation of roads and trails for motorized use. Activities would occur on the Beartooth Ranger District of the Custer National Forest (Forest Service) in Park, Sweet Grass, Stillwater, and Carbon Counties, Montana. Your BA was received in the Billings Sub Office via email on March 31, 2008. This response is provided by the Service under the authority of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.).

The Beartooth Ranger District of the Custer National Forest proposes to designate a system of roads and trails on the District for motorized public use. Designation would include the type of vehicle and season of use for each road and motorized trail. In addition, dispersed vehicle camping could occur within 300 feet of motorized routes except along approximately 8½ miles of road along the Main Fork of Rock Creek south of Red Lodge, Montana. Where dispersed vehicle camping would be allowed, measures would be used to limit the expansion of existing sites and the creation of new sites to minimize resource impacts.

All routes currently exist on the ground and are either currently in the National Forest System or are unauthorized (non-system) routes. A total of 267 miles of routes would be designated for public motorized use. Seasons of use would be applied to 90 miles of routes to minimize resource damage. Ninety-seven miles of motorized routes currently in the National Forest System and 57 miles of non-system routes would not be designated for public motorized use. Of these, 53 miles would remain available for administrative use only. No cross-country travel areas or construction of new routes is proposed. The proposed action does not include winter for over-the-snow activity.

The Forest Service has determined the proposed action may affect, but is not likely to adversely affect Canada Lynx (*Lynx Canadensis*), and is also not likely to jeopardize the continued existence of the non-essential experimental population of gray wolf (*Canis lupus*). The Northern Rocky Mountain gray wolf population was removed from the Federal List of Endangered and Threatened Wildlife on March 28, 2008. A concurrence is provided in the event delisting is voided by litigation.

The Yellowstone grizzly bear population was determined to be recovered and was delisted effective April 30, 2007. The bald eagle was determined to be recovered and was delisted effective August 8, 2007. Consultation on effects of proposed Federal actions on these species is therefore no longer required.

The Service concurs with your determination of effects of your project on listed species and formal consultation is not required. The Service bases its concurrence on the fact that there will be no new habitat modifications and the implementation of species specific Strategy Standards and conservation measures stated in the BA.

The action area is not within currently designated Lynx critical habitat. However, recently proposed Lynx critical habitat (40 FR 10860-10896) does occur in parts, within the Beartooth District. Therefore, due to the Forest Service's adherence to the Canada Lynx Conservation Assessment and Strategy and The Northern Rockies Lynx Management Direction, this action will not adversely modify proposed Lynx critical habitat.

This concludes informal consultation and conference pursuant to regulations in 50 CFR 402.13 implementing the ESA of 1973, as amended. Should there be species in the affected areas that become newly listed, proposed, or otherwise not considered in this assessment; the Forest Service should reinitiate informal consultation with the Service. This project should be re-analyzed if new information reveals effects of the action that may affect threatened, endangered or proposed species, if the project is modified in a manner that causes an effect not considered in this consultation, or if the monitoring requirements, timing, and spatial restrictions listed in the protective measures will not be implemented.

The Service appreciates efforts by Custer National Forest to minimize negative impacts to listed species in Montana. We also support your efforts to minimize impacts on sensitive and management indicator species. For further questions, please call Lou Hanebury at the Billings Sub Office at 406-247-7367.

Sincerely,

  
for R. Mark Wilson  
Field Supervisor

cc: FWS/ES, Billings, MT (Attn: Lou Hanebury)  
USFS/Custer National Forest, Billings, MT. (Attn: Tom Whitford)

**Appendix J: USDI Fish and Wildlife Service Concurrence**

**- End of Appendix J -**

# INDEX

**2005 Motorized Travel Rule**, 1-2, 1-5, 1-7, 1-8, 1-9, 2-10, 2-12, 2-13, 2-15, 2-17, 2-19, 2-21, 3-36, 4-27, 5-25, 5-32, 5-34, 5-36, 5-37, 5-38, 5-40, 5-42, 5-46, 5-47, 5-50, 5-60, 5-61, 5-62, 5-64, 5-66, 5-67, 5-68, 5-71, 5-74, 5-89, A-1, C-9, C-18, C-27, C-42, G-1

**Access Needs**, 1-7, 1-8, 5-61, A-5

**Accessibility**, 1-6, 3-68, 3-73, G-1

**Air Quality**, 1-8, 2-9, 4-6, 5-45

**Archeological**, 2-6, 3-45, 3-46, 3-47, 3-52, 3-54, 3-61, 3-62, 4-3, 4-7, 4-9, 4-10, 5-54

**Comparison of Effects**, 2-37

**Cultural Resource**, 1-1, 1-3, 1-7, 1-8, 1-9, 2-6, 2-11, 2-17, 2-24, 2-25, 2-33, 2-38, 2-44, 3-45, 3-46, 3-48, 3-49, 3-50, 3-52, 3-53, 3-54, 3-55, 3-56, 3-57, 3-58, 3-59, 3-60, 3-61, 3-62, 3-63, 3-65, 3-69, 3-73, 3-74, 3-79, 4-2, 4-3, 4-4, 4-7, 4-9, 5-8, 5-9, 5-10, 5-11, 5-20, 5-29, 5-36, 5-51, 5-53, 5-55, 5-58, 5-61, 5-62, 5-63, 5-87, 5-89, 5-90, 5-100, 5-117, 5-121, A-5, C-16, C-17, C-18, C-25, C-41, D-1

**Cumulative Effects**, 3-1, 3-2, 3-5, 3-31, 3-33, 3-38, 3-39, 3-44, 3-61, 3-68, 3-76, 3-87, 3-92, 3-93, 3-95, 3-96, 3-97, 3-99, 3-110, 3-111, 3-114, 3-121, 3-122, 3-123, 3-131, 3-134, 3-136, 3-138, 3-140, 3-141, 3-144, 3-147, 3-154, 3-158, 3-159, 3-173, 3-188, 3-202, 3-203, 3-215, 3-216, 3-228, 3-234, 3-238, 4-17, 5-11, 5-12, 5-17, 5-42, 5-43, 5-44, 5-47, 5-68, 5-69, 5-103, 5-105, 5-110, 5-120, 5-121, I-5, I-6, I-7

**Direct and Indirect Effects**, 3-17, 3-37, 3-41, 3-52, 3-54, 3-110, 3-114, 3-130, 3-131, 3-133, 3-135, 3-138, 3-140, 3-143, 3-146, 3-153, 3-158, 3-162, 3-168, 3-181, 3-200, 3-201, 3-209, 3-213, 3-222, 3-228, 3-238, 5-12, 5-125

**Dispersed Vehicle Camping**, 1-4, 1-6, 2-8, 2-11, 2-12, 2-20, 2-31, 2-33, 3-5, 3-6, 3-8, 3-19, 3-23, 3-25, 3-28, 3-31, 3-41, 3-52, 3-53, 3-54, 3-58, 3-59, 3-60, 3-61, 3-75, 3-76, 3-84, 3-93, 3-94, 3-95, 3-97, 3-115, 3-117, 3-118, 3-119, 3-120, 3-121, 3-154, 3-168, 3-171, 3-172, 3-174, 3-180, 3-186, 3-198, 3-209, 3-210, 3-213, 3-224, 5-10, 5-17, 5-22, 5-40, 5-54, 5-55, 5-56, 5-62, 5-63, 5-98, 5-104, 5-110, A-4, C-1, C-12, C-16, C-17, C-18, C-22, C-24, C-25, C-26, C-36, C-38, C-40, C-41, C-42, C-43, D-1, I-4

**Economics**, 2-9, 2-42, 2-51, 3-229, 3-234, 3-238, 3-239, 4-3, 4-4, 4-26, 5-11, 5-12, 5-13, 5-14, 5-15, 5-28, 5-52, 5-64, 5-121

**Endangered Species**, 2-7, 3-4, 3-79, 3-129, 3-130,

3-132, 3-133, 3-134, 3-155, 3-162, 3-204, 3-223, 5-89, 5-119, 5-125, I-3, I-4, I-5

**Enforcement**, 2-1, 2-15, 2-16, 2-17, 2-18, 3-36, 3-41, 3-52, 3-136, 4-3, 5-10, 5-20, 5-21, 5-22, 5-23, 5-24, 5-25, 5-26, 5-27, 5-33, 5-34, 5-40, 5-43, 5-45, 5-50, 5-58, 5-62, 5-70, 5-79, 5-95, 5-111, A-1, A-4, A-7, A-8, A-9

**Environmental Justice**, 3-3, 5-18

**Executive Order**, 1-9, 3-3, 3-46, 3-62, 3-103, 3-155, 3-159, 3-165, 5-18, 5-31, 5-32, 5-37, 5-38, 5-56, 5-126, 5-129

**Fisheries and Aquatics**, 3-102, 3-103, 3-114, 3-121, 3-123, 3-124, 3-128, 3-223, 4-4, 4-13, 5-15, 5-16, 5-17

**Human Environment**, 1-9, 3-1, 3-5, 3-35, 3-37, 3-39, 4-3, 4-7, 5-18, 5-19, 5-20, 5-68, 5-71, 5-90

**Implementation**, 1-1, 1-5, 1-6, 1-9, 2-1, 2-9, 2-15, 2-17, 2-23, 2-24, 3-1, 3-3, 3-4, 3-7, 3-12, 3-18, 3-21, 3-22, 3-25, 3-27, 3-30, 3-83, 3-92, 3-188, 3-203, 3-213, 3-215, 3-216, 3-222, 4-3, 5-17, 5-20, 5-25, 5-26, 5-37, 5-38, 5-45, 5-53, 5-56, 5-62, 5-83, 5-100, 5-105, 5-108, 5-109, 5-129, I-3, I-5, I-7

**Inventoried Roadless Area**, 1-1, 2-8, 2-41, 2-51, 3-10, 3-41, 3-135, 3-137, 3-138, 3-217, 3-218, 3-219, 3-220, 3-221, 3-222, 3-224, 3-225, 3-226, 3-227, 3-228, 3-229, 5-36, 5-40

**Maintenance**, 1-6, 1-7, 1-8, 2-1, 2-9, 2-16, 2-17, 2-18, 2-19, 2-21, 2-25, 2-26, 3-47, 3-64, 3-68, 3-80, 3-85, 3-92, 3-93, 3-94, 3-95, 3-96, 3-97, 3-102, 3-108, 3-109, 3-111, 3-112, 3-119, 3-123, 3-125, 3-159, 3-167, 3-176, 3-191, 3-213, 3-220, 3-224, 3-225, 3-226, 3-227, 3-228, 3-229, 4-3, 4-11, 4-13, 5-15, 5-16, 5-17, 5-22, 5-24, 5-26, 5-27, 5-28, 5-29, 5-30, 5-31, 5-33, 5-35, 5-36, 5-38, 5-41, 5-44, 5-48, 5-58, 5-59, 5-61, 5-62, 5-75, 5-80, 5-93, 5-98, 5-107, 5-108, 5-110, 5-111, 5-112, 5-114, A-3, A-5, B-1, B-2, C-7, C-14, C-22, C-38, E-1, E-3, E-5

**Management Indicator Species**, 2-7, 2-39, 2-45, 3-103, 3-125, 3-127, 3-141, 3-143, 3-145, 3-146, 3-155, 3-160, 3-161, 3-162, 5-17, 5-115, 5-119, 5-122, 5-124, 5-125

**Migratory Birds**, 3-125, 3-126, 3-127, 3-128, 3-129, 3-155, 3-156, 3-158, 3-159, 3-165, 4-18, 5-124, 5-125, 5-127

**Monitoring**, 2-23, 2-24, 3-10, 3-12, 3-46, 3-52, 3-59, 3-61, 3-77, 3-135, 3-147, 3-155, 3-195, 3-228, 3-230, 3-231, 3-232, 3-233, 4-6, 4-12, 4-20, 4-25, 4-26, 5-8,

# INDEX

5-9, 5-10, 5-11, 5-13, 5-25, 5-28, 5-36, 5-43, 5-45, 5-83, 5-86, 5-87, 5-97, 5-99, 5-101, 5-103, 5-107, 5-109, 5-111, 5-113, 5-126, 5-127, A-4, A-6, E-3

**Noise**, 1-8, 2-6, 2-7, 2-13, 2-15, 2-37, 2-43, 3-5, 3-6, 3-36, 3-39, 3-40, 3-41, 3-42, 3-43, 3-44, 3-45, 3-68, 3-74, 3-75, 3-76, 3-124, 3-151, 3-157, 4-7, 4-16, 5-19, 5-37, 5-70, 5-71, 5-75, 5-81, 5-115, 5-123, 5-124

**Public Participation**, 2-1, 4-1

**Public Safety**, 1-7, 1-8, 2-13, 2-24, 4-3, 4-6, 5-44, 5-90, 5-91, 5-92, 5-128, A-5, B-4

**Recreation**, 1-1, 1-3, 1-4, 1-5, 1-7, 1-8, 1-9, 2-2, 2-3, 2-4, 2-5, 2-6, 2-9, 2-10, 2-14, 2-15, 2-17, 2-18, 2-20, 2-21, 2-22, 2-24, 2-25, 2-27, 2-36, 2-37, 2-42, 2-43, 2-51, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, 3-12, 3-13, 3-14, 3-17, 3-18, 3-19, 3-20, 3-21, 3-22, 3-23, 3-24, 3-25, 3-26, 3-27, 3-28, 3-29, 3-30, 3-31, 3-32, 3-33, 3-34, 3-35, 3-36, 3-38, 3-39, 3-41, 3-42, 3-44, 3-49, 3-50, 3-51, 3-58, 3-60, 3-64, 3-68, 3-75, 3-76, 3-78, 3-80, 3-83, 3-84, 3-87, 3-88, 3-89, 3-90, 3-91, 3-98, 3-101, 3-103, 3-113, 3-122, 3-129, 3-131, 3-135, 3-137, 3-148, 3-151, 3-153, 3-154, 3-155, 3-159, 3-164, 3-176, 3-193, 3-217, 3-222, 3-223, 3-224, 3-225, 3-229, 3-231, 3-233, 3-234, 3-235, 3-236, 3-238, 3-239, 4-2, 4-3, 4-6, 4-7, 4-9, 4-10, 4-11, 4-13, 4-16, 4-17, 4-19, 4-20, 4-26, 5-2, 5-8, 5-11, 5-12, 5-13, 5-14, 5-15, 5-18, 5-19, 5-20, 5-25, 5-29, 5-30, 5-31, 5-34, 5-35, 5-39, 5-40, 5-41, 5-42, 5-43, 5-44, 5-45, 5-46, 5-47, 5-48, 5-49, 5-50, 5-51, 5-53, 5-59, 5-61, 5-63, 5-64, 5-65, 5-66, 5-67, 5-68, 5-69, 5-70, 5-71, 5-72, 5-74, 5-77, 5-78, 5-79, 5-80, 5-81, 5-84, 5-85, 5-86, 5-87, 5-88, 5-89, 5-90, 5-92, 5-96, 5-98, 5-104, 5-105, 5-106, 5-111, 5-112, 5-115, 5-117, 5-118, 5-121, 5-122, 5-123, 5-126, A-3, B-1, B-2, B-3, B-4, B-5, C-1, C-11, C-12, C-16, C-18, C-22, C-24, C-26, C-27, C-35, C-36, C-38, C-40, C-43, E-4, G-3

**Sensitive Species**, 2-7, 2-8, 2-39, 3-103, 3-112, 3-115, 3-116, 3-117, 3-118, 3-119, 3-120, 3-121, 3-123, 3-125, 3-126, 3-127, 3-134, 3-135, 3-137, 3-138, 3-139, 3-140, 3-141, 3-155, 3-157, 3-160, 3-162, 3-163, 3-164, 3-204, 3-205, 3-206, 3-207, 3-215, 3-223, 5-16, 5-17, 5-103, 5-119, 5-120, 5-125, E-1, E-2, E-3

**Traditional Cultural Properties**, 2-6, 2-7, 2-38, 2-44, 3-41, 3-45, 3-53, 3-55, 3-56, 3-57, 3-61, 3-62, 3-64, 3-65, 3-66, 3-68, 3-69, 3-71, 3-73, 3-74, 3-75, 3-76, 3-77, 3-223, 4-2, 4-4, 4-11, 5-8, 5-9, 5-58

**Treaty Rights**, 3-4

**Tribes**, 2-6, 3-4, 3-49, 3-57, 3-61, 3-62, 3-64, 3-68, 4-1, 4-2, 4-22, 5-8, 5-9

**Vegetation**, 1-7, 1-8, 2-8, 2-14, 2-24, 2-41, 2-49, 3-4, 3-6, 3-56, 3-57, 3-79, 3-81, 3-83, 3-87, 3-105, 3-107, 3-108, 3-109, 3-112, 3-117, 3-131, 3-141, 3-143, 3-144, 3-152, 3-153, 3-155, 3-156, 3-157, 3-158, 3-159, 3-167, 3-168, 3-170, 3-171, 3-172, 3-175, 3-176, 3-177, 3-178, 3-179, 3-180, 3-181, 3-182, 3-183, 3-184, 3-185, 3-186, 3-188, 3-189, 3-190, 3-191, 3-195, 3-196, 3-197, 3-199, 3-203, 3-208, 3-209, 3-210, 3-213, 3-215, 3-229, 4-4, 4-13, 4-15, 4-23, 4-24, 5-28, 5-32, 5-37, 5-38, 5-45, 5-54, 5-55, 5-56, 5-58, 5-89, 5-93, 5-100, 5-101, 5-102, 5-103, 5-104, 5-105, 5-106, 5-107, 5-118, 5-124, 5-127, A-5, A-6, E-2, F-1, F-2

**Water Quality**, 1-1, 2-7, 2-26, 2-33, 2-38, 2-44, 3-4, 3-77, 3-78, 3-79, 3-80, 3-81, 3-83, 3-84, 3-85, 3-86, 3-92, 3-93, 3-94, 3-95, 3-96, 3-97, 3-98, 3-102, 3-103, 3-107, 3-111, 3-114, 3-115, 3-116, 3-117, 3-118, 3-119, 3-120, 3-123, 3-128, 3-141, 3-177, 3-223, 4-4, 4-11, 4-12, 5-15, 5-16, 5-17, 5-27, 5-33, 5-58, 5-83, 5-104, 5-107, 5-108, 5-109, 5-110, 5-111, 5-112, 5-113, 5-114, C-17, C-25, C-38, C-39, C-41, C-43, D-1, E-3, F-1

**Weeds**, 2-41, 2-51, 3-6, 3-144, 3-147, 3-155, 3-182, 3-184, 3-190, 3-191, 3-192, 3-193, 3-194, 3-195, 3-196, 3-197, 3-198, 3-199, 3-200, 3-201, 3-202, 3-203, 3-209, 3-213, 3-215, 3-228, 4-4, 4-24, 5-23, 5-28, 5-54, 5-55, 5-100, 5-101, 5-105, 5-106, 5-107, 5-112, 5-128

**Wildlife**, 1-1, 1-7, 1-8, 2-7, 2-8, 2-11, 2-14, 2-15, 2-17, 2-19, 2-23, 2-24, 2-36, 2-38, 2-40, 2-45, 2-47, 3-2, 3-3, 3-4, 3-11, 3-13, 3-14, 3-35, 3-36, 3-38, 3-39, 3-41, 3-44, 3-78, 3-79, 3-110, 3-124, 3-125, 3-129, 3-132, 3-134, 3-138, 3-141, 3-143, 3-145, 3-147, 3-148, 3-150, 3-151, 3-152, 3-153, 3-154, 3-155, 3-159, 3-160, 3-161, 3-162, 3-163, 3-164, 3-167, 3-190, 3-191, 3-195, 3-203, 3-204, 3-205, 3-223, 3-231, 3-232, 3-234, 3-235, 4-1, 4-2, 4-4, 4-6, 4-7, 4-14, 4-15, 4-16, 4-17, 4-18, 4-19, 4-20, 4-21, 4-22, 5-9, 5-19, 5-21, 5-23, 5-30, 5-32, 5-36, 5-37, 5-38, 5-43, 5-44, 5-45, 5-48, 5-51, 5-52, 5-64, 5-65, 5-70, 5-71, 5-78, 5-81, 5-83, 5-84, 5-85, 5-87, 5-92, 5-101, 5-104, 5-106, 5-107, 5-109, 5-112, 5-114, 5-115, 5-116, 5-117, 5-118, 5-119, 5-120, 5-121, 5-122, 5-123, 5-124, 5-125, 5-126, 5-127, A-5, A-6, B-2, B-3, C-16, C-24, C-45, I-1, I-2, I-3, I-4, I-5, I-7, J-1